



CITY OF NORMAN, OK
FLOODPLAIN PERMIT COMMITTEE MEETING
Development Center, Room B, 225 N. Webster Ave., Norman, OK 73069
Monday, March 02, 2026 at 3:30 PM

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, relation, 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 call 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 the January 20, 2026 meeting.

ACTION ITEMS

2. **Floodplain Permit Application No. 737** - This permit application is the removal of an aerial crossing and rerouting of a sanitary sewer line that crosses Bishop Creek near 727 East Boyd Street.
3. **Floodplain Permit Application No. 738** - This permit application is for the repair of the aerial crossing of the sanitary sewer line that crosses Brookhaven Creek near the intersection of NW 36th Ave. and Rock Creek Road.

MISCELLANEOUS COMMENTS

4. Floodplain Permit Committee 2025 Annual Summary.

ADJOURNMENT



CITY OF NORMAN, OK

FLOODPLAIN PERMIT COMMITTEE MEETING

Development Center, Conference Room B, 225 N. Webster Avenue,
Norman, OK 73069

Tuesday, January 20th, 2026 at 3:30 PM

MINUTES

The Floodplain Permit Committee of the City of Norman, Cleveland County, State of Oklahoma, met in Regular Session in Conference Room B at the Development Center, on the 20th day of January, 2025, at 3:30 p.m., and notice of the agenda of the meeting was posted at the Norman Municipal Building at 201 West Gray, Development Center at 225 N. Webster and on the City website at least 24 hours prior to the beginning of the meeting.

ROLL CALL

The meeting was called to order by Mr. Sturtz at 3:30 p.m. Roll was taken. Committee members in attendance included Bill Scanlon, Resident Member; Sherri Stansel, Resident Member; Scott Sturtz, Floodplain Administrator; Tim Miles, City Engineer; Ken Danner, Subdivision Development Manager; Jane Hudson, Director of Planning; and Lora Hoggatt, Planning Services Manager. Also in attendance were Jason Murphy, Stormwater Manager; and Roxsie Stephens, staff member. Citizens in attendance included Diana Phan, Johnson & Associates; Mark Daniels; Robert Bruce; Marion Hutt; and Darrell Janeway.

MINUTES

1. Approval of minutes from January 5th, 2026, meeting
 - a. Ms. Hudson motioned to approve. Ms. Hoggatt seconded the motion. Minutes were approved with a vote of 7-0.

ACTION ITEMS

2. Floodplain Permit No. 734

Mr. Sturtz stated that the floodplain permit application is for several outdoor improvement projects at a residence in the Ten-Mile Flat Creek Floodplain. Additionally, he stated the application had been postponed from the December 15th, 2025 meeting.

Mr. Murphy stated the applicant is J. Mark Daniels and the engineer is also J. Mark Daniels.

Mr. Murphy provided the staff report detailing the request with respect to the steps taken since the December 15th meeting, the floodplain permit requirements and potential impacts.

Mr. Murphy stated staff recommends permit app #734 be further postponed with the following conditions:

- A) Further postponement, to be placed on the next regular Floodplain Permit Committee agenda following City Council's approval on the Applicant's request for encroachment of the subject drainage easement only where an encroachment

consent application and all necessary information are submitted to the City of Norman by Applicant within 30 days of today;

- B) But that the permit automatically be deemed **denied** where complete, timely submittal for encroachment consent is **not** accomplished by Applicant within this thirty-day period or City Council denies the Applicant's request for encroachment.

Mr. Daniels asked for clarity surrounding what items would be encroaching as well as what steps would need to be taken to have the encroachment voted on by council. Committee members, Ms. Hudson and Mr. Danner, provided clarity and guidance for Mr. Daniels.

Mr. Sturtz asked the committee if they had any questions. Ms. Hoggatt asked to confirm that the recommendation includes both A and B. Mr. Murphy confirmed both items are applicable together.

Mr. Sturtz asked for any comments from the public. There were not any questions from the public.

Mr. Danner motioned to postpone the application. Mr. Scanlon seconded the motion.

The permit was approved with a vote of 7-0.

3. Floodplain Permit No. 736

Mr. Sturtz stated that the floodplain permit application is for extension of a natural gas service line in the Little River Floodplain near the intersection of N. Flood Avenue and W. Franklin Road.

Mr. Murphy stated the applicant is Oklahoma Natural Gas and the engineer is Johnson and Associates, Inc.

Mr. Murphy provided the staff report detailing the request with respect to the floodplain permit requirements and potential impacts.

Mr. Murphy stated staff recommends permit app #736 be approved.

Mr. Sturtz asked the committee if they had any questions. Ms. Hudson asked if the motion to approve would include an additional site plan that was not included in the packet for the meeting. Mr. Murphy stated that he would email the committee the additional site plan.

Mr. Sturtz asked for any comments from the public. There were not any questions from the public.

Mr. Danner motioned to approve the application with the additional site plan being provided. Ms. Hudson seconded the motion.

The permit was approved with a vote of 7-0.

MISCELLANEOUS COMMENTS

Mr. Sturtz asked if there were any miscellaneous comments. Mr. Murphy stated that currently there are not any applications pending for the next meeting.

ADJOURNMENT

Item 1.

Ms. Hoggatt motioned to adjourn. Ms. Stansel seconded the motion. Mr. Sturtz adjourned the meeting at 3:57 p.m.

Passed and approved this _____ day of _____, 2026

City of Norman Floodplain Administrator, Scott Sturtz

PERMIT NO. 737

DATE: 3/2/2026

STAFF REPORT

ITEM: Floodplain Permit Application for the removal of the aerial crossing and reroute of the sanitary sewer line that crosses Bishop Creek near 727 East Boyd Street.

APPLICANT: City of Norman Utilities

ENGINEER: Nathan Madenwald, P.E.

BACKGROUND

The project involves rerouting an existing sanitary sewer line away from an aging aerial crossing over Bishop Creek near Boyd Street. The proposed work includes installation of a new sanitary sewer alignment by open-cut methods, construction of a new manhole to facilitate the reroute, removal of the existing aerial crossing, and abandonment of remaining portions of the existing sewer line in place. Disturbed areas will be restored to original grade following construction.

As noted in the engineer's certification letter, the proposed work will not alter the existing channel alignment, channel flow line, or floodplain conveyance. Temporary excavation and construction activities will be confined to the immediate work area, and any disturbed stream banks will be stabilized and restored to prevent erosion. The engineer has certified that the project will not result in any increase in the Base Flood Elevation.

STAFF ANALYSIS

The project is located within the Bishop Creek floodplain (Zone AE). Based on submitted documentation and engineering certification, the proposed improvements will not result in a rise in the Base Flood Elevation and will maintain existing floodplain conveyance.

Work consists primarily of utility improvements and removal of an existing aerial crossing that has reached the end of its service life. The project replaces vulnerable infrastructure with a more resilient configuration designed to minimize future flood damage and maintenance concerns.

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

Temporary excavation associated with installation of the sewer line will be backfilled to existing grade. No permanent fill is proposed that would reduce flood storage capacity. Disturbed areas will be restored following construction. The new manhole will occupy 1.24 cubic yards of volume, however, removing the existing concrete piers and anchors will compensate by removing 12.25 cubic yards of material.

(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 joints designed to minimize infiltration of floodwaters and prevent discharge into floodwaters, consistent with ordinance requirements and standard City specifications. The new manhole will be located below the BFE, but will be covered with a watertight cover to prevent infiltration of flood waters into the Sanitary Sewer system or exfiltration of sewage into floodwaters. Specifications are in the application packet.

(f)(3)(8) – No-Rise Requirement

The Utilities Engineer provided a No-Rise Certification.

RECOMMENDATION

Staff recommends approval of floodplain permit application #737.

ACTION TAKEN:



City of Norman Floodplain Permit Application

Floodplain Permit No. 737

Building Permit No. _____

Date 03/02/2026

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: Norman Utilities Authority - Peter Wolbach ADDRESS: 225 N. Webster Avenue, Norman, OK 73069

TELEPHONE: (405) 217-7778 SIGNATURE: *Peter Wolbach*

BUILDER: TBD ADDRESS: _____

TELEPHONE: _____ SIGNATURE: _____

ENGINEER: Nathan Madenwald, P.E. ADDRESS: 225 N. Webster Ave., Norman, OK 73069

TELEPHONE: (405) 366-5426 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.

The project site is located between the residence at 727 E Boyd St on the West and Bishop Creek on the East.

Legal Description: SE/4 of the SW/4 of the NE/4 of Section 32, T9N-R2W, Lincoln Terrace Lot Tract Lying S of BLK 3 and N of BLK 4

Map of project location attached.

DESCRIPTION OF WORK (Check all applicable boxes):

A. STRUCTURAL DEVELOPMENT

- | <u>ACTIVITY</u> | <u>STRUCTURE TYPE</u> |
|---|--|
| <input checked="" type="checkbox"/> New Structure | <input type="checkbox"/> Residential (1-4 Family) |
| <input type="checkbox"/> Addition | <input type="checkbox"/> Residential (More than 4 Family) |
| <input type="checkbox"/> Alteration | <input checked="" 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 \$ 20,000.00 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:

- Fill Mining Drilling Grading
- Excavation (Beyond the minimum for Structural Development)
- Watercourse Alteration (Including Dredging and Channel Modifications)
- Drainage Improvements (Including Culvert Work) Road, Street or Bridge Construction
- Subdivision (New or Expansion) 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.

The project involves rerouting an existing sanitary sewer away from an aging aerial crossing over Bishop Creek and installing a new manhole to connect to an existing 30-inch sanitary sewer main along E. Boyd Street. Installation will require open-cut excavation approximately 10 to 15 feet deep.

Any material removed from the channel during removal of the existing aerial crossing is considered routine maintenance and will be replaced as necessary to restore pre-construction conditions. Specifications for the work to be performed in this area has also been attached to this permit application.

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.

Plan sheets and specifications attached.

- 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:

- 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:

- 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:

- E. A profile showing the slope of the bottom of the channel or flow line of the stream.

Not Applicable:

Attached

- F. Elevation (in relation to mean sea level) of the lowest floor (including basement) of all new and substantially improved structures.

Not Applicable:

See Flowline values in attached plan sheet

- 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:

- 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.
 Radius map and list attached.
- J. A copy of all other applicable local, state, and federal permits (i.e. U.S. Army Corps of Engineers 404 permit, etc).

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.: 0285H, Dated: 9/26/2008

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.
- 100-Year flood elevation at the site is 1138.0 Ft. NGVD (MSL) Unavailable

See Section 4 for additional instructions.

SIGNED: Jason Murphy DATE: 02/16/2026

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 36, Section 533. 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.)

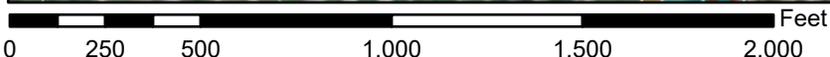
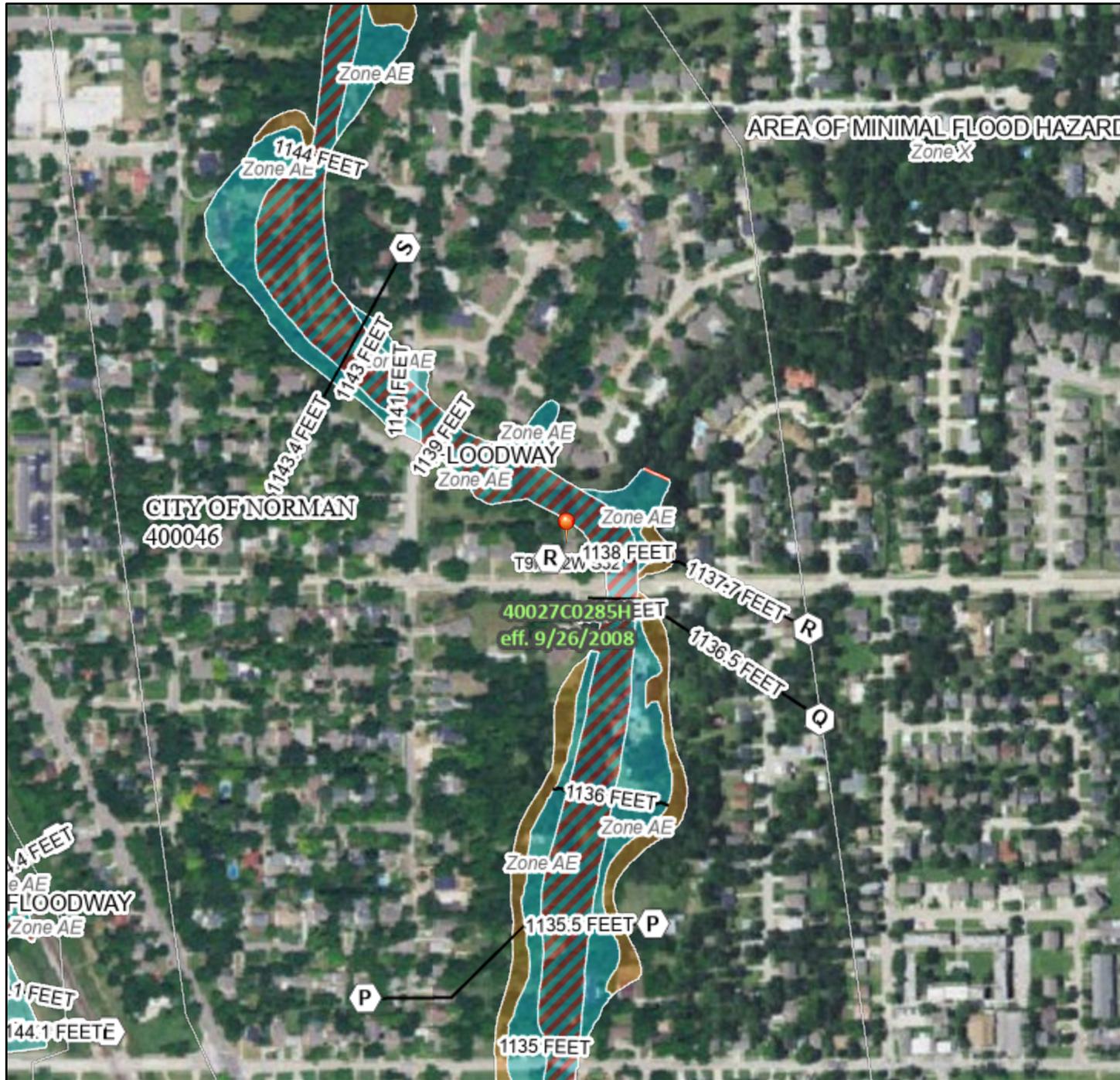
1. FEMA Elevation Certificate
and/or
2. FEMA Floodproofing Certificate

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.

National Flood Hazard Layer FIRMette



97°26'10"W 35°12'56"N



1:6,000

97°25'33"W 35°12'26"N

Basemap Imagery Source: USGS National Map 2023

Legend

Item 2.

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL 13

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
GENERAL STRUCTURES		Area of Undetermined Flood Hazard Zone D
		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5 Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
MAP PANELS		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature
		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 2/16/2026 at 3:48 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 information in unmapped and unmodernized areas cannot be used for regulatory purposes.



The City of
NORMAN

225 N Webster Ave · P.O Box 370
Norman, Oklahoma · 73069 · 73070

UTILITIES ENGINEERING
Phone: 405-366-5443
Fax: 405-366-5447

Item 2.

February 6, 2026

Jason Murphy, CFM
Storm Water Program Manager
City of Norman

Re: No Rise Certification
Sewer Maintenance Program 18 – Bishop Creek Aerial Crossing Reroute
Norman, OK

Dear Mr. Murphy:

This project involves the rerouting of an existing sanitary sewer line away from an aging aerial crossing over Bishop Creek near E. Boyd Street. The proposed work includes installation of a new sanitary sewer alignment by open-cut methods, construction of a new manhole to facilitate the reroute, removal of the existing aerial crossing, and abandonment of the remaining portions of the existing sewer line in place. All disturbed areas will be restored to original grade following construction.

The proposed work will not alter the existing channel alignment, channel flow line, or floodplain conveyance. Temporary excavation and construction activities will be confined to the immediate work area and will be backfilled upon completion. Any material removed from the channel during removal of the existing aerial crossing is considered routine maintenance and will be replaced as necessary to restore pre-construction conditions. Stream banks disturbed during construction will be stabilized and restored to prevent erosion.

Based on the proposed scope of work, the project will not result in any increase in the Base Flood Elevation within the regulatory floodway or on any adjacent property. Therefore, this project complies with the City of Norman floodplain regulations and constitutes a no-rise condition.

Please contact me at (405) 366-5426 if you have any questions or require additional information.

Sincerely,

Nathan Madenwald, PE
Utilities Engineer
City of Norman Utilities Department



WW0316 Bid No. 2526-27
Sewer Maintenance Project 2018

Norman Utilities Authority
Contract K-2526-25

ADDENDUM NO. 2

February 12, 2026

Owner: Norman Utilities Authority
Project Number: WW0316
Project Name: Sewer Maintenance Project 2018
Bid No. 2526-27
Contract No. K-2526-25

This Addendum is a part of Contract and clarifies, corrects or modifies original Bid Documents, dated January 2026 and signed and sealed by the Engineer on January 25, 2026. Receipt of this addendum in the space provided on this form and include with your Bid Documents; failure to do so may subject bidder to disqualification.

A. Revisions to Specifications:

1. Invitation to Bid (00080):
 - a. The Bid Date is hereby modified from February 19, 2026, at 2:00 PM to February 26, 2026 at 2:00 PM
2. Bid Form (00300):
 - a. Bid Form 00300 is replaced in its entirety
 - b. New form modifies pay items and quantities.
 - i. Pay Item 8 modified from Lump Sum to Linear Foot basis.
 - c. Contract time is changed to 700 calendar days.
3. Special Provisions (00820-1):
 - a. Hyperlink for Standard Specifications is modified to:
<https://public.3.basecamp.com/p/ZCCDw6tLkW276ELNPtUyjUYx>
4. Manhole rings and covers shall be Trumbull 26" composite lid and frame Parts 367-5705 and 367-5703 and other items necessary for complete and workable installation.

B. Revisions to Plans:

1. Sheet C2-102 is replaced in its entirety with the revised sheet.
2. Sheet C2-104 is replaced in its entirety with the revised sheet.
3. Sheet C2-105 is replaced in its entirety with the revised sheet.
4. Screenshot shows locations of sewers to be abandoned at Renaissance and Classen to be covered by Pay Item 15.



Trumbull Manufacturing, Inc.

3850 Hendricks Road, Youngstown, Ohio 44515

Phone: 330.270.7888 | Toll Free: 877.504.1507 | Fax: 330.392.0756

www.trumbull-mfg.com

Item 2.

Composite Manhole Frame and Cover Assemblies

With Full Clear Opening – Paddle Lock and Bolt Down Styles

Available in 26", 32" and 38" Sizes – EPDM Sealed

2
COVER
STYLES

GROOVED DESIGN EPDM SEAL
prevents infiltration

STAINLESS STEEL PICK BARS
1 or 2, depending on manhole size

OUTWARD LOBES
allow for precise
bolt and paddle
lock alignment

FRAME SLOTS
allow easy
handling and
anchoring to
manhole



i Additional security options available, shown on page 40.

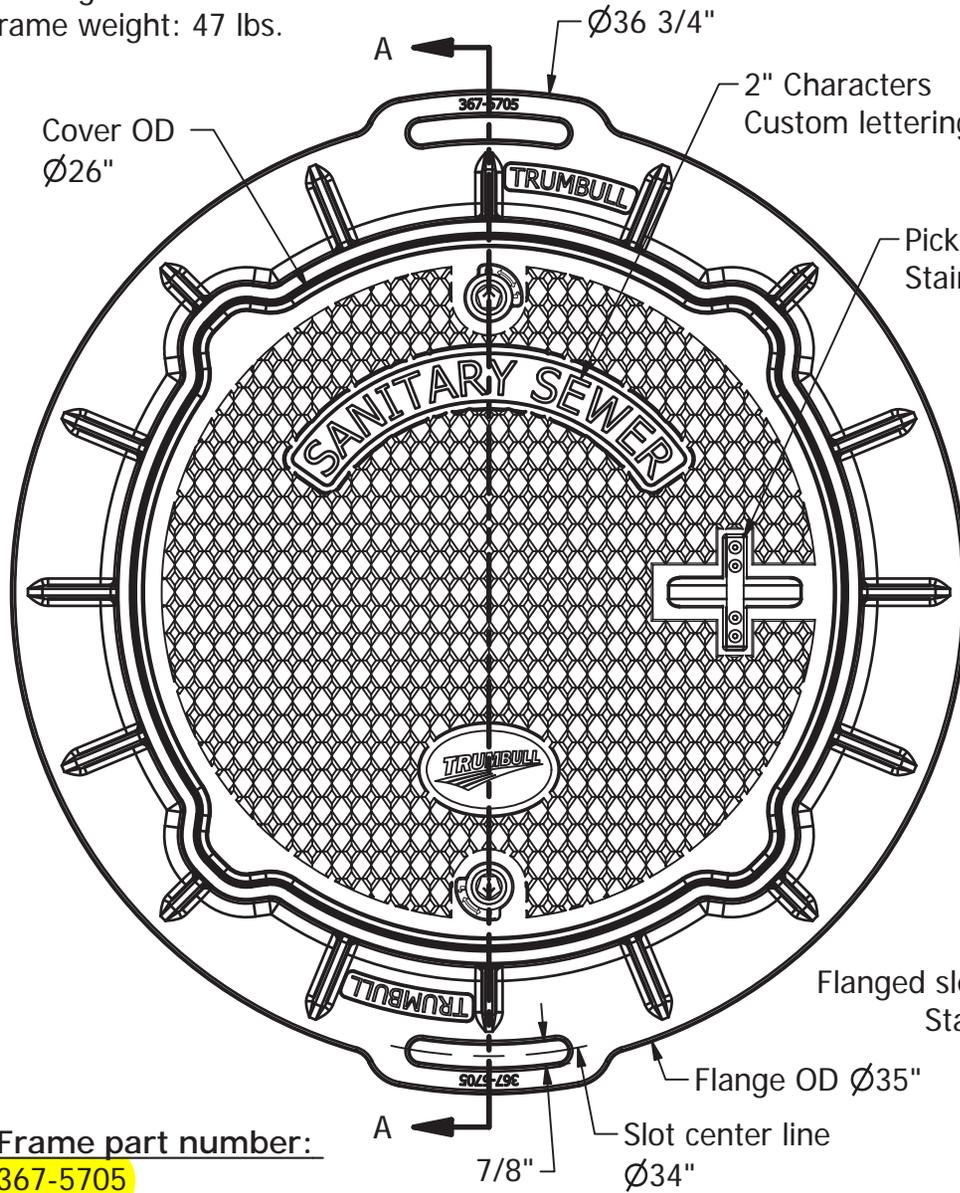
Lid OD	Locking Mechanism	FRAME	SANITARY SEWER LID	WATER METER LID	Total Weight
		Trumbull Item No.	Trumbull Item No.	Trumbull Item No.	
26"	Bolt Down		367-5701	367-5702	93.00 lbs.
26"	Paddle Lock	367-5705	367-5703	367-5704	93.00 lbs.
32"	Bolt Down	367-5794	367-5792	367-5793	129.00 lbs.
32"	Paddle Lock		367-5900	367-5901	129.00 lbs.
38"	Bolt Down	367-5784	367-5795	367-5465	236.80 lbs.
38"	Paddle Lock		367-5617	367-5618	236.80 lbs.

- Composite design can pass a 50,000 lb. proof load test per AASHTO M-306, H-25, yet weighs only one-third of comparable cast iron frame and lid, reducing back and finger injuries.
- Two lid fastening styles available.
- All hardware is stainless steel, along with the composite construction provides corrosion resistance.
- Fasteners on underside to attach flow monitoring/leak detection devices.
- Optional logo/custom lettering available.

For dimensions, load ratings and additional options, refer to the product information chart on page 28 (WATER METER) and page 46 (SANITARY SEWER).

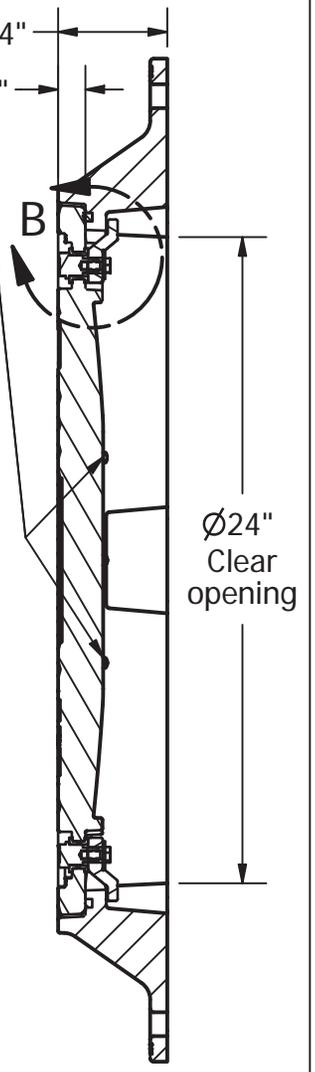
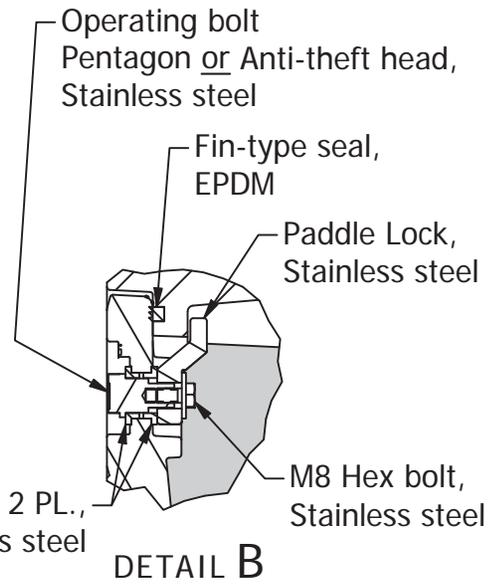
Lid weight: 48 lbs.
Frame weight: 47 lbs.

50,000 lbs. load rating, H-25



Frame height 4"
Cover thickness 1"
Mounting for flow monitoring and leak detection devices

Note: There are 2 paddle lock assemblies, 180° apart, Per below Detail B



Frame part number:
367-5705
Lid part number:
367-5703 (Sanitary Sewer)
367-5704 (Water Meter)

26" Manhole Lid & Frame
(24" Frame Clear Opening, Paddle Lock)
Drawn to Scale

Drawn:
AAH
09/18/18

Original document

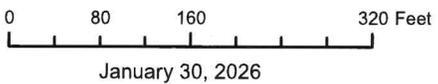
Trumbull Manufacturing, Inc.
Youngstown, Ohio
www.trumbull-mfg.com



**Lincoln Terrace Lot Tract Lying S of BLK 3 and N of BLK 4,
Sec. 32, T9N, R2W I.M. (Parcel ID: NC29LINCT 3 001)**

Legend
 SMP-18 Flood Plain Permit Parcel

 Map Produced by the City of Norman
 Geographic Information System.
 The City of Norman assumes no
 responsibility for errors or omissions
 in the information presented.



January 30, 2026

conditions (temperature, moisture level, and thermal conductivity of the soil). The heat source temperatures shall be monitored and logged during the cure and cool down cycles. The manufacturer's recommended cure schedule shall be submitted.

5. Steam Venting – The mixture of steam and air created during the curing of the CIPP service tap must be vented out of the sewer collection system or service pipe cleanout. Under no circumstances shall steam be vented through building structures.
6. CIPP Processing – Curing shall be done without pressure interruption with air or a mixture of air and steam for the proper duration of time per the resin manufacturer's recommendations. The curing process is complete when the temperature of the CIPP reaches 100 degrees Fahrenheit or less, the processing shall be finished

2.11 TESTING AND INSPECTION

A. Testing

1. Chemical Resistance: The CIPP shall meet the chemical resistance requirements of ASTM F1216, Appendix X2. CIPP samples for testing shall be of tube and resin system similar to that proposed for actual construction. It is required that CIPP samples with and without plastic coating meet these chemical-testing requirements.
2. CIPP Field Samples: When requested by the OWNER, the Contractor shall submit test results from field installations in the USA of the same resin system and tube materials as proposed for the actual installation. These test results must verify that the CIPP physical properties specified have been achieved in previous field applications. Samples for this project shall be made and tested as described in the Field Testing Section below.
3. Any liner that doesn't meet the quality standards using CIPP methods will be cut out or dug and replaced. Grout or epoxies will not be an allowable repair method.

B. On Site Field Inspection

1. Post-construction CCTV inspection shall be performed on all CIPP rehabilitated sewer mains and shall be conducted from the main, televising to the ends of both the main line wrap and lateral liner termination.

2.12 SITE CLEAN-UP

- A. Upon acceptance of the installation work and testing, the Contractor shall restore the project area affected by the operations to a condition at least equal to that existing prior to the work.

2.13 BASIS OF PAYMENT

- A. Refer to basis of payment in Bid Form 00300.

2.14 CONSTRUCT SEWER MANHOLE

Sewer Manhole Construction: This section shall govern the construction of precast and cast-in-place sanitary sewer manholes.

Precast Concrete Sanitary Sewer Manholes:

- A. Precast Concrete Manhole Sections shall conform to the latest revision for Precast Reinforced Manhole Sections, ASTM C-478. The manhole sections shall be machine made by a process which will provide for uniform placement of zero slump concrete in the form and compaction by mechanical devices which will assure a dense concrete in the finished product.

- B. Joints for the manhole sections shall conform to the jointing specifications in ASTM C-478 with the exception that O-ring rubber gasket joints shall be furnished in accordance with ASTM C-443.
- C. Excavation for manhole construction shall be at the locations as shown on the plans, and shall be wide enough to provide room to install the manhole. The concrete base for the manholes shall be set or poured on solid undisturbed subgrade covered with a minimum of 4" thick granular material to achieve a stable foundation.
- D. Channels and inverts shall be formed in the bottom of the manholes to a depth equal to one-half the diameter of the largest pipe and conforming to the inside of the adjacent sewer pipe. For a pipe running through a manhole, the bottom shall be built-up halfway to the top of the pipe and the top half of the pipe shall be broken out across the manhole. Then the concrete shall be shaped to form vertical channel walls to the top of the pipe and flush with the inside of the pipe using cement grout (2 parts sand & 1 part Portland cement). Where a pipe turns or where there is a junction, the channel shall be curved and shall have a depth equal to the pipe diameter, with the bottom similar in shape to the bottom of the pipe and with channel walls vertical above the center of the pipe. Changes in direction of flow shall be made with a smooth curve of as large a radius as the size of manhole will permit. Changes in size and grade of the channels shall be made gradually and evenly.
- E. Manholes shall be provided with core-drilled openings to accommodate a resilient connector meeting the requirements of ASTM C-923 for all sewer lines entering or leaving the manhole. The resilient connectors shall be either PSX gasket or Press Wedge II as manufactured by Press-Seal Gasket Corp. or similar approved flexible manhole sleeves as manufactured by Kor-N-Seal by NPG Systems, Inc. The connectors shall provide a watertight joint between the manhole and pipe. The annular space shall be sealed at the manhole and the sealing shall be made with material approved by the ENGINEER and shall extend a minimum of 8-inch into the manhole wall in such a manner as to form a smooth, uniform, watertight joint.
- F. Six inch (6") thick precast concrete grade rings shall be used to level the cast iron frame and cover and adjust to the proper final grade. The joints between the precast grade rings shall be sealed watertight with approved pre-formed bitumastic joint sealant. All lifting holes shall be patched with non-shrink grout.
- G. Finish grade for the manhole castings constructed in the paved areas shall conform to the slope of the pavement and be 1/8" below the finished pavement elevation. In non-paved areas, the top of the casting shall be 6" above the surrounding ground.
- H. Vacuum Testing. All lift holes and exterior joints shall be plugged with a non-shrink grout. No grout shall be placed in horizontal joints prior to testing. All pipes entering the manhole shall be plugged. Stubouts, manhole boots, and pipe plugs shall be secured to prevent movement while the vacuum is drawn. A minimum 60-inch-lb torque wrench shall be used to tighten the external clamps that secure the test cover to the top of the manhole. The test head shall be placed at the inside of the top of the cone section, and the seal inflated in accordance with the manufacturer's recommendations. A vacuum of 10 inches of mercury shall be drawn, and the vacuum pump shut off. With all valves closed, the time for the vacuum to drop to 9 inches of mercury shall not be less than one (1) minute. If the manhole fails a test, necessary repairs shall be made with a non-shrink grout while the vacuum is being drawn. The test shall be repeated. If the vacuum test is failed twice, the manhole shall be repaired, and a hydrostatic test shall be performed as provided for herein. The manhole shall be retested as described above until a successful test is made.

2.15 CAST-IN-PLACE CONCRETE SANITARY SEWER MANHOLES

- A. Cast-In-Place Concrete Manholes shall be constructed in place in accordance with the plans and using steel or fiberglass forms. The base shall be cast monolithically with the rest of the manhole, and the inverts or channels shall be formed during the placing of the concrete and brush-finished as soon as the concrete has set sufficiently. The concrete shall set for 24 hours before any pipe inside the manhole is trimmed. The concrete base shall be 3000 psi, maximum 4" slump, vibrated or tamped on 4" thick granular material over a stable subgrade foundation. The base shall have a minimum diameter of 8" greater than the outside diameter of the manhole.

- B. The vertical forms, wall spacers and placing cone must be carefully positioned and firmly clamped in place before concrete placement is begun for the manhole barrel section. The wall spacers must be located 90 degrees from each other. The manhole barrel shall be cast of 3000 psi concrete with a maximum slump of 4". Wall thickness of the manhole barrel shall be a minimum of 6" for 4-foot diameter manholes and minimum of 8" for 5-foot diameter manholes and larger. The first placement shall consist of approximately ½ yard of concrete deposited evenly around the walls and vibrated until there is a minimum slope of 60° from the bottom of the forms to the bearing surface both inside and outside of the manhole. When this is complete and before additional concrete is added, the concrete shall be carefully vibrated on each side of each pipe. Additional concrete shall be deposited in evenly distributed layers of about 18" with each layer vibrated to bond it to the proceeding layer. The wall spacers shall be raised as the placements are made with the area from which the spacer is withdrawn being carefully vibrated. A maximum of 2% Calcium Chloride may be added to the concrete, at the CONTRACTOR's option, to accelerate the set. The forms may be removed as soon as the concrete has sufficiently set. (Approximately 2 Hrs. after placement). Form marks and offsets up to 1" will be permitted on the outside surface of the manhole and form marks and offsets up to ½" will be permitted inside the manhole. All offsets on the inside surface of the manhole will be smoothed and grouted so there is no visible projections or irregularities. Honeycomb areas will be grouted with an approved mortar material.
- C. Channels and Inverts shall be formed in the bottom of the manholes to a depth equal to one-half the diameter of the largest pipe and conforming to the inside of the adjacent sewer pipe. For a pipe running through a manhole, the bottom shall be built-up halfway to the top of the pipe and the top half of the pipe shall be broken out across the manhole. Then the concrete shall be shaped for form vertical channel walls to the top of the pipe and flush with the inside of the pipe using cement grout. Where a pipe turns or where there is a junction, the channel shall be curved and shall have a depth equal to the pipe diameter, with the bottom similar in shape to the bottom of the pipe and with channel walls vertical above the center of the pipe. Changes in direction of flow shall be made with a smooth curve of as large a radius as the size of manhole will permit. Changes in size and grade of the channels shall be made gradually and evenly.
- D. Manholes shall be constructed with openings to accommodate a resilient connector meeting the requirements of ASTM C-923 for all sewer lines entering or leaving the manhole. The resilient connectors shall be either PSX gasket or Press Wedge II as manufactured by Press-Seal Gasket Corp. or similar approved flexible manhole sleeves as manufactured by Kor-N-Seal by NPG Systems, Inc. The connectors shall provide a watertight joint between the manhole and pipe.
- E. Vacuum Testing. All lift holes and exterior joints shall be plugged with a non-shrink grout. No grout shall be placed in horizontal joints prior to testing. All pipes entering the manhole shall be plugged. Stubouts, manhole boots, and pipe plugs shall be secured to prevent movement while the vacuum is drawn. A minimum 60-inch-lb torque wrench shall be used to tighten the external clamps that secure the test cover to the top of the manhole. The test head shall be placed at the inside of the top of the cone section, and the seal inflated in accordance with the manufacturer's recommendations. A vacuum of 10 inches of mercury shall be drawn, and the vacuum pump shut off. With all valves closed, the time for the vacuum to drop to 9 inches of mercury shall not be less than one (1) minute. If the manhole fails a test, necessary repairs shall be made with a non-shrink grout while the vacuum is being drawn. The test shall be repeated. If the vacuum test is failed twice, the manhole shall be repaired, and a hydrostatic test shall be performed as provided for herein. The manhole shall be retested as described above until a successful test is made.

2.16 ABANDON EXISTING MANHOLES:

- A. All sewer manholes selected for abandonment shall be excavated a minimum of 3-feet below the existing grade and the manhole sections dismantled at this depth. The remaining portion of the manhole shall then be backfilled with sand in the unpaved areas and granular material within paved areas. The backfill materials within the abandoned manholes shall be compacted to 95% of maximum density as determined by ASTM- 698 from the bottom of the abandoned manhole to finished grade.

2.17 ABANDON EXISTING SEWER LINE:

- A. All sewer lines selected for abandonment shall be plugged at the existing manholes by pumping or pouring concrete into the sewer line to form a concrete plug a minimum of 2-feet into the line from within the manhole. In situations where an existing line makes an aerial crossing, the CONTRACTOR shall cut/saw the existing pipe on either side of the crossing. The CONTRACTOR shall pay particular attention to ensure that the existing pipe is cut as close to the channel wall and/or creek bank as possible. All portions of the pipe located above grade shall be demolished and removed by the contractor. The remaining ends of the abandoned pipe shall be plugged with concrete as previously stated.
- B. Further requirements may include, but not be limited to, flowable fill as set forth in the in Basis of Payment, included with and following the Bid Form.

2.18 EXISTING MANHOLES RE-CONNECT EXISTING COLLECTION LINE:

- A. Connection to Existing Lines: For connection to lines of similar materials, the CONTRACTOR shall utilize a watertight manufactured coupling or transition coupling provided by the pipe manufacturer. For connections to lines of dissimilar materials, the CONTRACTOR shall use Non-Shear Couplings with stainless steel bands, meeting the requirements of ASTM C 1173, Fernco Strong Back RC Series or approved equal.
- B. Where pipe bursting or lining is directly into the manhole, the CONTRACTOR shall install a waterstop gasket and ensure the connection is watertight and the bench is regouted as necessary to ensure a smooth flow transition.

2.19 RECONNECT EXISTING SERVICE TO NEW PVC SEWER LINE:

- A. Reconnect Existing Service to New PVC Sewer Line: CONTRACTOR shall provide for internal TV inspection of the existing line to assist in locating each of the existing main line services. Each existing service shall be located and excavated concurrent with the installation of the proposed sewer line. Appropriate size, approved wyes, tees or saddles shall be installed at 45° with the pipe spring line and each fitting securely supported on a stable foundation encased in crushed rock to prevent horizontal or vertical movement subsequent to backfilling. The proper size PVC service pipe shall be installed from the main sewer line to the existing public right-of-way or private property boundary.
- B. CONTRACTOR shall expedite the reconnection of the services so as to minimize any inconvenience to the customers. If sewage backup occurs causing damage to houses, structures or property, the CONTRACTOR shall be responsible for cleanup, repair, and all cost claims.

2.20 RECONNECT EXISTING SERVICE TO NEW HDPE SEWER LINE:

- A. Reconnect Existing Service to New HDPE Sewer Line: CONTRACTOR shall provide for internal TV inspection of the existing line to assist in locating each of the existing main line services. Each existing service shall be located and excavated concurrent with the installation of the proposed pipe-bursting operation.
- B. Appropriately sized HDPE Gasketed Electro-fusion Sewer Saddles (CENTRAL PLASTICS COMPANY), Faction Fusion HDPE vacuum saddle, or an approved equal shall be installed at 45° with the pipe spring line and each fitting securely supported by a stable foundation encased in crushed rock to prevent horizontal or vertical movement subsequent to backfilling. The proper size PVC service pipe shall be installed from the main sewer line to the existing public right-of-way or private property boundary.
- C. Drilled holes in the main line must match or line up with the saddle and cannot be smaller than the service line size for the saddle where debris could get caught.
- D. Unless determined necessary by the Engineer, no cleanout will be required. However, where determined by the Engineer, the cleanout will be a Schedule 40 PVC tee extended to final grade terminating with a PVC cap.
- E. CONTRACTOR shall expedite the reconnection of the services so as to minimize any inconvenience to the

Unit cost bid for each item specified to include all labor, materials, equipment, tools, and other incidentals necessary to provide a complete and operable system. Items not specifically listed in this bid schedule shall be considered incidental to the Work and the CONTRACTOR shall include all such costs in the unit price items bid.

Quantities shown are approximate. CONTRACTOR is responsible to verify estimated quantities and adjust the unit price bid as deemed appropriate. CONTRACTOR will be paid for actual quantities installed as measured in the field.

The Total Base Bid shall include all quantities for the project.

ITEM NO.	DESCRIPTION	UNITS	ESTIMATED QUANTITY	UNIT PRICE	AMOUNT BID
	BASE BID				
1	Mobilization/Demobilization and Insurance	LS	1		
2	Construction Traffic Control	LS	1		
3	Point Repair – 8-Inch	EA	3		
4	Open Trench Pipe Replacement – 8-Inch	LF	850		
5	Boring – Steel Casing and 8-Inch Sewer Carrier Pipe	LF	50		
6	Pipe Bursting – 8-Inch	LF	35,000		
7	Cured-in-Place Pipe – 8-Inch	LF	8,000		
8	Aerial Crossing Replacement – 8-Inch	LF	60		
9	Concrete Encasement of Sanitary Sewer	LF	100		
10	Remove Existing Manhole	EA	2		
11	Construct 4-Foot ID Manhole to 6-Foot Depth	EA	5		
12	Additional Depth Manhole Wall Greater Than 6-Foot	VF	25		
13	Abandon Existing Manhole	EA	4		
14	Plug Existing Sewer – 8-Inch	EA	5		
15	Abandon Sanitary Sewer by Grout Fill	CY	10		
16	Bypass Pumping	LS	1		
17	Existing Service Reconnection	EA	570		
18	Extend Service Line Past Easement	LF	200		
19	Internal CIPP Service Reconnection	EA	30		
20	Curb and Gutter Removal and Replacement	LF	90		
21	Sidewalk Removal and Replacement	SY	40		
22	Pavement Removal and Replacement	SY	240		
23	Landscaping and Sprinkler Repair Allowance	LS	1	\$20,000	\$20,000
24	Site Restoration	LS	1		

exceeds 20 feet in length, the additional footage will be paid at the unit price established for Bid Item 6, Open Trench Pipe Replacement.

4. OPEN TRENCH PIPE REPLACEMENT – 8-INCH (LINEAR FOOT): Open Trench Pipe Replacement shall include furnishing all labor, equipment, and materials necessary to install the sewer line of the size called for in the plans. This item includes pipe, fittings, excavation, pipe bedding and backfill, compaction, and testing for a complete and workable installation.
5. BORING – STEEL CASING AND 8-INCH SEWER CARRIER PIPE (LINEAR FOOT): This item shall include furnishing all labor, equipment, and materials necessary to install bore a steel casing sufficient for the installation of an 8-inch sanitary sewer line with restrained joints where called for in the plans. This item includes bore, steel casing, sanitary sewer carrier pipe, stainless steel casing spacers, casing foam plugs, excavation for bore pits, and testing for a complete and workable installation.
6. PIPE BURSTING – 8-INCH (LINEAR FOOT): Pipe-bursting shall include furnishing all labor, equipment, and materials necessary to replace the existing sewer line utilizing pipe-bursting methods. This unit price bid shall include internal television inspection (full length) of the sewer segment, removal of external and internal line obstructions, cost of pipe, pipe welding, pipe handling and insertion, annulus sealing, excavation and backfill of launch pits, connections to or repair of existing or proposed manholes, and all other costs or work associated with installation of this item unless otherwise specifically identified as a Bid Item for payment. Contractor must remove all debris from manholes immediately after pipe is installed.
7. CURED-IN-PLACE PIPE – 8-INCH (LINEAR FOOT): Cured-in-place pipe (CIPP) shall include furnishing all labor, equipment, and materials necessary to rehabilitate the existing sewer line utilizing cured-in-place pipe methods. This unit price shall include internal television inspection (full length) of the sewer segment, removal of external and internal line obstructions, cost of pipe, surface preparation, pipe handling and insertion, connections to or repair of existing connections to proposed manholes, and all other costs or work associated with installation of this item unless otherwise specifically identified as a bid item for payment. Contractor must remove all debris from manholes immediately after pipe is installed.
8. AERIAL CROSSING REPLACEMENT – 8-INCH (LINEAR FOOT): This item shall include removal and disposal of the existing steel casing and sewer pipe and installation of new casing and 8-inch sanitary sewer pipe utilizing the existing piers. This item includes removal, disposal, installation, steel casing, sanitary sewer carrier pipe, stainless steel casing spacers, casing foam plugs or end seals, straps, and testing for a complete and workable installation.
9. CONCRETE ENCASEMENT OF SANITARY SEWER (LINEAR FEET): This unit price pay item shall include furnishing the concrete embedment for the new sanitary sewer line as outlined in the Plans. The unit price shall include forming (as necessary), concrete, and any other associated work necessary for a complete installation.
10. REMOVE EXISTING MANHOLE (EACH): Remove existing manhole shall include furnishing all labor, equipment, and materials necessary to completely remove an existing manhole and base, including disposal of residual debris, plugging of lines where applicable, and all necessary excavation, importation of fill materials, backfill and surface restoration shall be in strict accordance with City of Norman standard specifications and construction drawings, depending on the surface, particularly if paved. Unless specifically identified otherwise, site restoration is included in the cost for this pay item.
11. **CONSTRUCT 4-FOOT ID MANHOLE TO 6-FOOT DEPTH (EACH):** Construct manhole shall include furnishing all labor, equipment, and materials necessary for assembly and installation 4-foot inside

diameter manhole up to six (6) feet deep as measured from the top of the manhole frame and cover to the lowest flowline in the manhole. This item also include excavation, placement and compaction of backfill, furnishing and installing manhole bedding, manhole base, piping connections to manhole, manhole invert, manhole wall, Trumbull composite manhole ring and cover, and any other associated work necessary for a complete and workable installation. for manholes with depths greater than six (6) feet, additional vertical depth of wall will be paid separately.

12. ADDITIONAL DEPTH MANHOLE WALL GREATER THAN 6-FOOT (VERTICAL FOOT): Additional depth manhole wall shall furnishing all labor, equipment, and materials required to construct and place 4-foot inside diameter manhole walls at a depth greater than 6.0 feet as shown in the plans, standard details, and specifications. This item includes additional excavation, additional placement and compaction of backfill, additional manhole wall, and any other associated work for a complete installation. Such payment will be full compensation for furnishing, and installing manhole walls at depths greater than 6.0 feet deep as measured in vertical feet from the manhole invert to the top of ring and cover. Bid item does not include manhole frame and cover, manhole bench and invert or manhole testing; all excluded items are included in unit price bid for preceding bid item. Measurement shall be to the nearest 0.1 feet.
13. ABANDON EXISTING MANHOLE (EACH): Abandon Existing Manhole shall include furnishing all materials, labor, and equipment to abandon an existing manhole in-place, as directed by the OWNER, including disposal of residual debris, plugging of lines where applicable, and all necessary excavation and backfill. Manhole invert and riser sections may remain; remove cone to a depth of at least 3 feet and backfill with sand or graded rock. Unless specifically identified otherwise, surface restoration is included in the cost for Abandon Existing Manhole.
14. PLUG EXISTING SEWER (EACH): Plug Existing Sewer Lines shall include all labor, materials and equipment necessary to plug any existing line(s) to be abandoned as set forth in the Plans and Specifications. Payment shall include all necessary excavation, pipe cutting, form work, disposal of residual debris, backfill, compaction testing, and all other incidental items necessary for complete and satisfactory abandonment. Each line so abandoned shall be noted on the as-built plans to be furnished to the OWNER. If approved by the OWNER, a sewer line to be abandoned may be injected with flowable fill, but said work is not included in this bid item.
15. ABANDON SANITARY SEWER BY GROUT FILL (CUBIC YARDS): This pay item shall include all labor, materials and equipment necessary to grout fill existing lines to be abandoned where specifically called for in the Plans and Specifications, specifically for the sewer installation at Renaissance and Classen. Payment shall include all necessary excavation, pipe cutting, form work, disposal of residual debris, backfill, grout, temporary plugs, and all other incidental items necessary for complete and satisfactory abandonment. Each line so abandoned shall be noted on the as-built plans to be furnished to the OWNER.
16. BYPASS PUMPING (LUMP SUM): Bypass Pumping shall include furnishing all materials, labor, and equipment required to sustain sewer system flow at all times during construction including pump when necessary. Bid item shall include, but not be limited to, pumps, piping, controls, fuel, and all other incidental items necessary for a complete and functional solution. The unit price bid shall include all cost associated with this item unless otherwise specifically identified as a Bid Item for payment.
17. EXISTING SERVICE RECONNECTION (EACH): Existing Service Reconnection shall include all materials, labor, and equipment necessary to locate and externally reconnect each existing service to the new line installed, including but not limited to excavation, reconstruction, all required pipe, saddle, fittings, service line repair, backfill and compaction, for a complete and workable installation. Each service

PERMIT NO. 738

DATE: 3/2/2026

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:



City of Norman

Floodplain Permit Application

Floodplain Permit No. 738

Building Permit No. _____

Date 03/02/2026

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.)

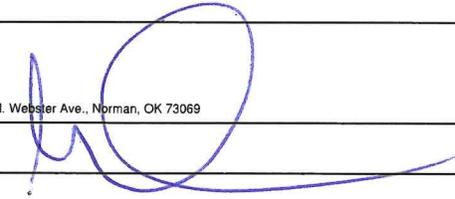
APPLICANT: Peter Wolbach ADDRESS: 225 N Webster Avenue, Norman, OK 73069

TELEPHONE: (405) 217-7778 SIGNATURE: 

BUILDER: TBD ADDRESS: _____

TELEPHONE: _____ SIGNATURE: _____

ENGINEER: Nathan Madenwald, P.E. ADDRESS: 225 N. Webster Ave., Norman, OK 73069

TELEPHONE: (405) 366-5426 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.

The portion of the project site that needs permitting is located in Brookhaven Creek, between the commercial and residential zones containing Parcel ID: NC29PRAK5 1 7A001 on the west and Parcel ID: NC29PRAK2 5 22001 on the east.

Legal Description: NE/4 of the SW/4 of the NW/4 of Section 23, T9N-R3W, Prairie Creek 5 Lot 7A BLK 1 (West Parcel), Prairie Creek 2 Lot 22 BLK 5 (East Parcel).

Map of project location attached.

DESCRIPTION OF WORK (Check all applicable boxes):

A. STRUCTURAL DEVELOPMENT

ACTIVITY

STRUCTURE TYPE

- New Structure Residential (1-4 Family)
- Addition Residential (More than 4 Family)
- Alteration Non-Residential (Flood proofing? Yes)
- Relocation Combined Use (Residential & Commercial)
- Demolition Manufactured (Mobile) Home
- Replacement In Manufactured Home Park? Yes

ESTIMATED COST OF PROJECT \$ 25,000.00 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:

- Fill Mining Drilling Grading
- Excavation (Beyond the minimum for Structural Development)
- Watercourse Alteration (Including Dredging and Channel Modifications)
- Drainage Improvements (Including Culvert Work) Road, Street or Bridge Construction
- Subdivision (New or Expansion) 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.

The work being performed for the permit request is the removal and replacement of a sanitary sewer aerial crossing over Brookhaven Creek. The planned replacement includes the removal and replacement of the following elements: 115-feet of existing

steel carrier pipe, 115-feet of existing 8-inch PVC sanitary sewer line, and the existing concrete anchors for the steel casing and sanitary sewer pipe. Design calls for the existing grade to be maintained. See attached plan sheets for additional information.

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.

Plan sheets entitled "Sewer Maintenance Project 18 - Brookhaven Creek Aerial Crossing" is included.

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:

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:

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:

E. A profile showing the slope of the bottom of the channel or flow line of the stream.

Not Applicable:

F. Elevation (in relation to mean sea level) of the lowest floor (including basement) of all new and substantially improved structures.

Not Applicable:

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:

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.

Attached

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.

Radius map and list attached.

J. A copy of all other applicable local, state, and federal permits (i.e. U.S. Army Corps of Engineers 404 permit, etc).

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.: 0280J, Dated: 1/15/2021

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.

100-Year flood elevation at the site is 1166.0 Ft. NGVD (MSL) Unavailable

See Section 4 for additional instructions.

SIGNED: Jason Murphy DATE: 02/16/2026

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 36, Section 533. 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.)

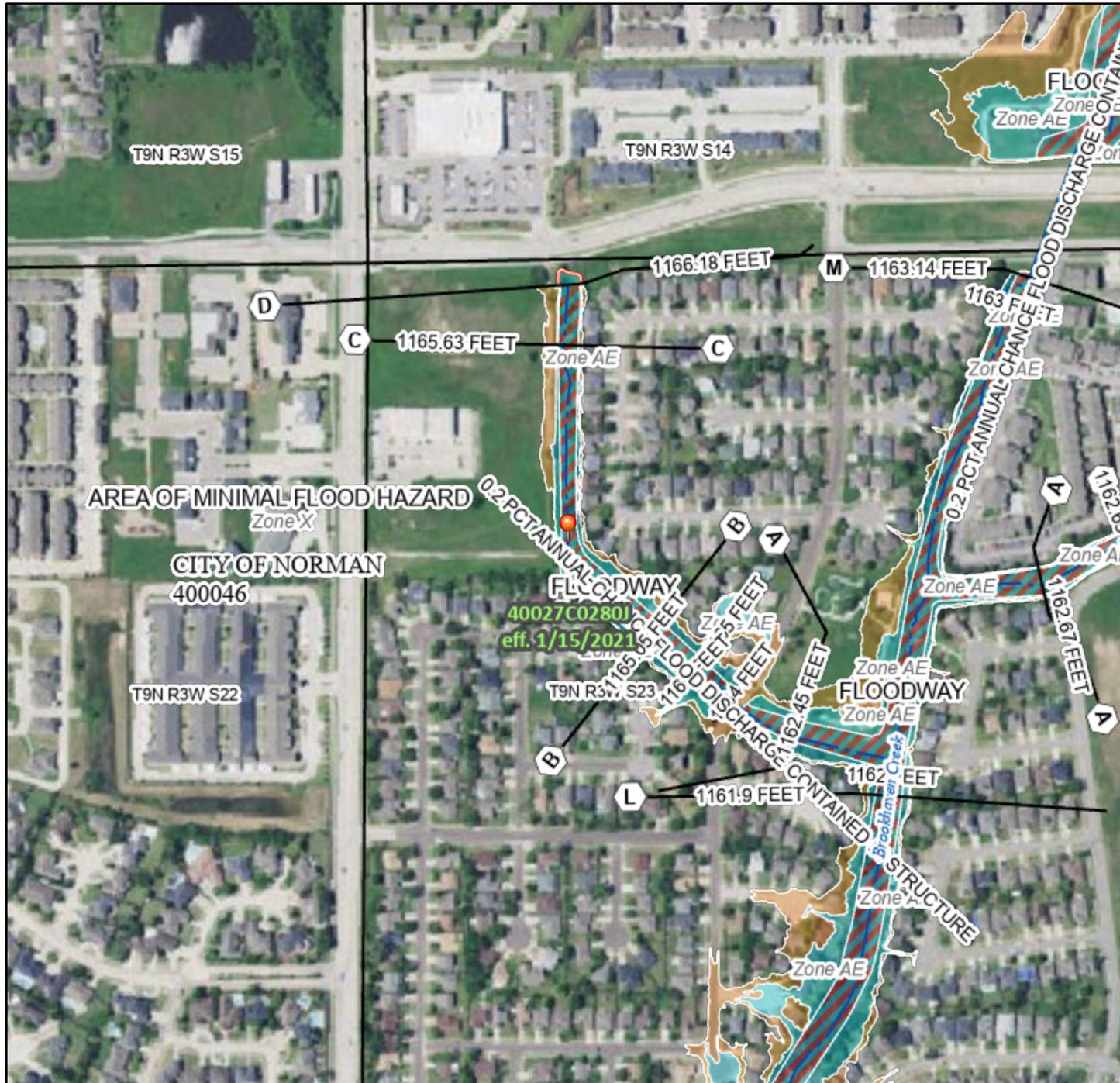
1. FEMA Elevation Certificate
and/or
2. FEMA Floodproofing Certificate

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.

National Flood Hazard Layer FIRMMette



97°29'51"W 35°14'57"N



1:6,000 97°29'13"W 35°14'28"N

Basemap Imagery Source: USGS National Map 2023

Legend

Item 3.

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM METTE

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
GENERAL STRUCTURES		Area of Undetermined Flood Hazard Zone D
		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5 Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
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 2/16/2026 at 8:03 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.

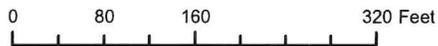


Prairie Creek 5 Lot 7A BLK 1 (West Parcel),
 Prairie Creek 2 Lot 22 BLK 5 (East Parcel), Sec. 23, T9N, R3W I.M.



Map Produced by the City of Norman
 Geographic Information System.

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



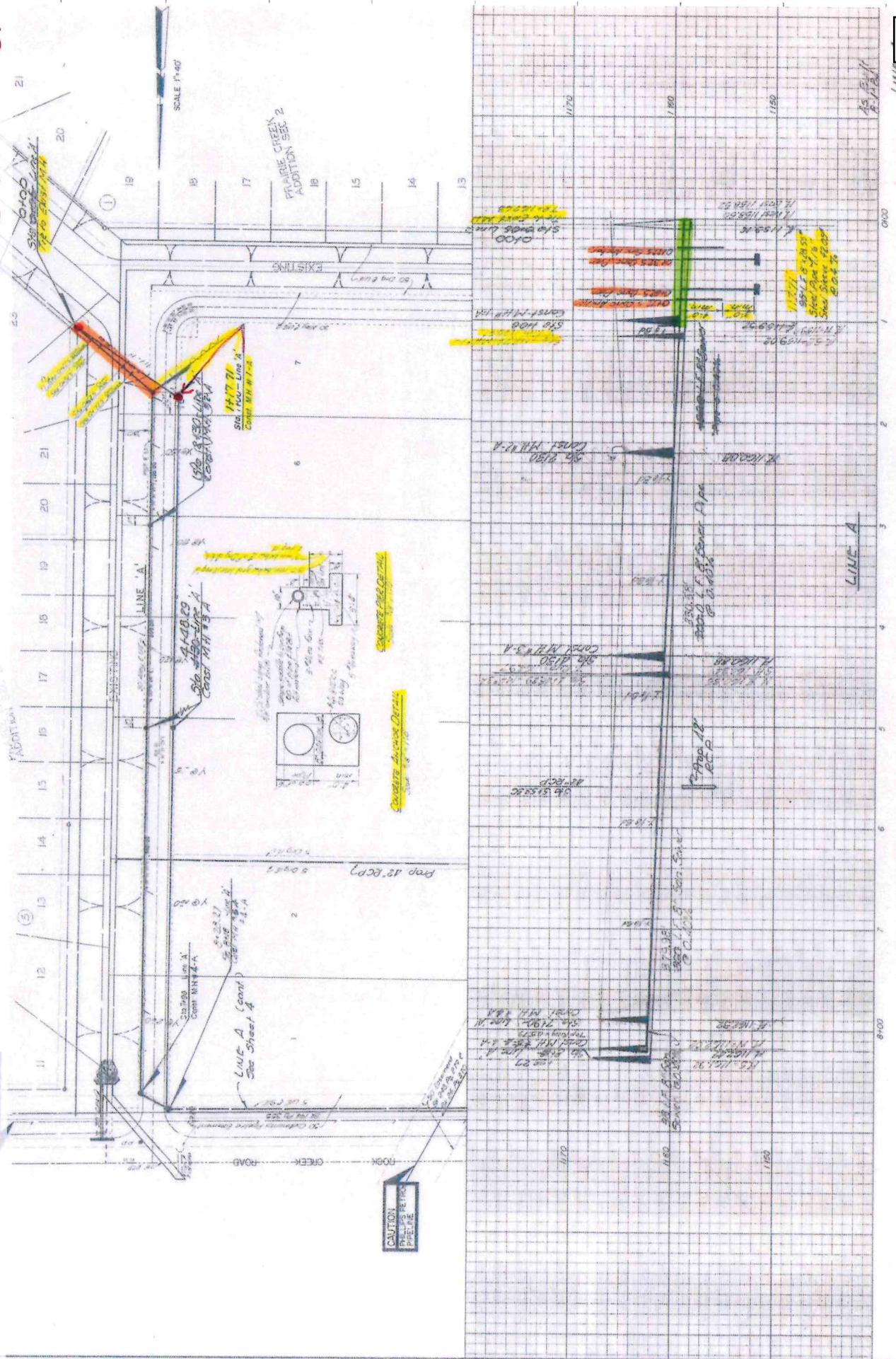
January 30, 2026



Legend

 BaseMapPub.GIS.Parcel selection 10

Sewer Maintenance Project 18 - Brookhaven Creek Aerial Crossing (Existing)



Item 3.



The City of
NORMAN

225 N Webster Ave · P.O Box 370
Norman, Oklahoma · 73069 · 73070

UTILITIES ENGINEERING
Phone: 405-366-5443
Fax: 405-366-5447

Item 3.

February 6, 2026

Jason Murphy, CFM
Storm Water Program Manager
City of Norman

Re: No Rise Certification
Sewer Maintenance Program 18 – Buckhorn Drive Aerial Crossing Replacement
Norman, OK

Dear Mr. Murphy:

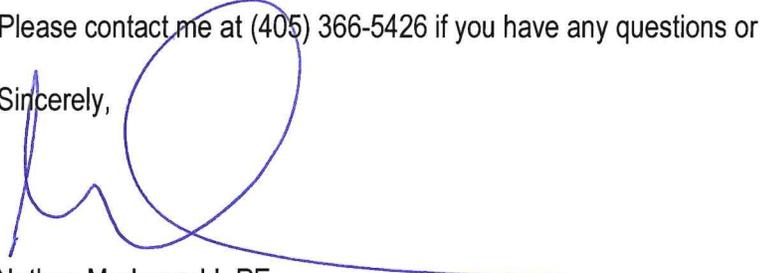
This project consists of replacing an existing 8-inch sanitary sewer aerial crossing over Brookhaven Creek near Buckhorn Drive as part of the City of Norman's Sewer Maintenance Program 18. The proposed work includes removal of the existing sewer pipe and casing and installation of a new 8-inch sanitary sewer utilizing the 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 upon completion of the work.

Based on the proposed improvements, there will be no increase in flood elevations within the regulatory floodway or on any adjacent properties as a result of the project. Accordingly, the proposed work meets the requirements for a no-rise certification under City of Norman floodplain regulations.

Please contact me at (405) 366-5426 if you have any questions or require additional information.

Sincerely,


Nathan Madenwald, PE
Utilities Engineer
City of Norman Utilities Department





office memorandum

DATE: January 30, 2026
TO: Floodplain Permit Committee Members
FROM: Jason Murphy, Stormwater Program Manager
SUBJECT: Floodplain Permit Committee 2025 End of Year Summary

Floodplain Permits

The Department of Public Works received 28 floodplain permit applications and 2 amendments in 2025:

- Of the 30 permit applications reviewed, 25 were approved by the committee.
- 2 permit applications were denied, 4 were postponed, and 1 was withdrawn.

Floodplain Violations

Seven floodplain violation notices was issued in 2025.

Letters of Map Revision (LOMR)

No Letters of Map Revision were received in 2025.

Flood Insurance Studies

No Flood Insurance Studies (FIS) were received in 2025.

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 2025:

- Direct mailed approximately 2,300 flood protection letters to property owners and renters in the floodplain.
- Letters were sent to approximately 70 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.
- A CRS Cycle Visit was conducted by FEMA in July of 2025. No results of that audit have been provided by FEMA as of this January 2026.

Hazard Mitigation Plan Update for Year 2025

The Cleveland County Hazard Mitigation Plan, under which the City of Norman operates, was updated during 2025. The plan is currently undergoing final review by FEMA and a resolution for adoption by the City is being prepared by City Emergency Management.

Action Item 12 – Miscellaneous Drainage Improvements

The attached Stormwater Division monthly reports highlight projects and ongoing maintenance that are credited through the CRS program under Action Item 12. These reports indicate infrastructure repairs, replacements, improvements and maintenance completed by the City’s Stormwater Maintenance Crews. As these reports indicate, some of the maintenance and many of the projects are identified not only City performing preforming inspections, but are also reported by citizens of Norman.

Flood Warning System (FWS)- 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. The scoping project was completed by and a final report submitted in the summer of 2024. The City of Norman applied for a grant through the BRIC program to fund the implementation of the FWS. The City was selected as a recipient of the grant in early 2025, but before the funds could be awarded, the grant program was discontinued. The City is currently awaiting for results of a different grant application through FEMA’s Hazard Mitigation Grant Program that is under review.

Stormwater Master Plan Update - In 2025, the City’s Area and Infrastructure Master Plan (AIM) Plan was completed, which included an update to the 2009 Stormwater Master Plan (SWMP). This Community led project included updates to the by hydraulic and hydrologic data in the SWMP as well as a reevaluation of the 2009 plan projects. A new rubric was developed based on the Committee and community feedback to prioritize existing and new key projects outlined in the SWMP. Cost estimates were also updated for these projects. In addition, recommendations were made for Stormwater Quality priorities City-wide. In addition, as a part of AIM update and City Council approval of the plan, the Flood Hazard District ordinance for the City of Norman was updated to correct some scrivener’s errors.

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 received FEMA Hazard Mitigation Grant funds for construction of this project and construction began on this project in July 2025. Construction is currently set to be complete by early summer 2026. Additionally, the City has moved forward with a design solution for Phase 2 of the project.

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. In 2024, 214 South Lahoma was purchased by the City and deeded as permanent open space. In the fall of 2025, that property was redesigned into a community garden area that will be maintained by the local community with assistance from the DoERs and the City Parks Department. No new property was obtained during 2025.

2025 FLOODPLAIN PERMIT COMMITTEE MEETING ATTENDANCE CHART							
Meeting	Sturtz	Scanlon	Stansel	Hudson	Danner	Hoggatt	Miles
1/6	x	x	x	x	x	x	x
1/21	x	x	x	x	x		x
3/3	x	x		x	x	x	x
3/17	x	x		x	x		x
4/7		x	x		x	x	x
5/19	x	x	x	x	x		x
6/2	x	x	x		x	x	x
7/7	x	x	x		x	x	x
7/21	x	x	x	x	x	x	x
8/4	x	x	x	x	x	x	x
8/18		x	x		x	x	x
9/2		x	x	x	x	x	x
9/15	x	x	x	x	x	x	x
10/6	x	x	x	x	x	x	x
12/1	x	x	x	x	x		x
12/15	x	x	x	x	x	x	x
Legend: X = Present for Meeting							