



January 18, 2012

Mr. Gary Bishop
District Conservationist
U.S. Department of Agriculture, Natural Resources Conservation Service
100 USDA
Suite 206
Stillwater, OK 74074-2655

Re: Request for Project Review –90th Street Drainage Project, Bixby, Oklahoma

Dear Mr. Bishop:

The City of Bixby, Oklahoma, has been experiencing flooding problems along 90th East Avenue due to insufficient roadway heights and culvert capacities along Fry Creek. During rain events exceeding 1 inch, Fry Creek consistently floods – leaving 90th East Avenue completely inundated and causing roadway overtopping at 89th East Avenue and 113th Street. Residences and sanitary sewer crossings in this area are affected by flood waters to varying degrees depending on the amount and rate of precipitation.

During flooding events, area motorists who use 90th East Avenue to access main arterial streets are cut off. There are seven residences whose only access becomes completely inaccessible during flood events; residents must wait for the waters to recede to leave or regain access to their properties. During flood events, emergency vehicles are unable to access these homes in a timely manner because of the road closures. The flood events place a strain on sanitary sewer crossings within the area, leading to weakening of and/or damage to lines. The heavy discharge rate of water from these flooding events has also led to stream bank shearing and deterioration.

The City of Bixby has requested FEMA funding under the Hazard Mitigation Grant Program (HMGP) to develop drainage system enhancements and flood control structures to address the recurring flooding in the project area. The City would construct a detention facility, upgrade culvert conveyance to accommodate 100-year flows, elevate existing roadways above the 100-year flood level, construct/update seven sanitary sewer encasements/drop structures, and stabilize stream banks. Specific project components include:

- Constructing a 1.5-acre water detention facility located west of and adjacent to 90th East Avenue,
- Elevating 90th East Avenue and portions of 89th East Avenue and 113th Street above the 100-year flood event,
- Replacing an existing 36-inch reinforced concrete pipe (RCP) culvert with a triple 8-foot x 6-foot reinforced concrete box (RCB) at Basin outlet on 113th Street Bridge,

- Replacing an existing 42-inch RCP culvert with a triple 8-foot x 6-foot RCB culvert at the Basin inlet on 112th Street Bridge,
- Replacing/upgrading sanitary sewer lines and creating seven sanitary sewer encasements/drop structures,
- The creation of an energy dissipation and stilling basin at the 113th Street culvert outflow,
- Stabilizing of stream bank on Fry Creek downstream from 113th Street, and
- Demolishing two houses and removing any associated landscaping or paving.

The project area is located in the City of Bixby, Tulsa County, Oklahoma (Figures 1 and 2), and is comprised of suburban dwellings with associated manicured plots and lawns, interspersed with small areas of trees. A meandering network of paved roadways allows access to the many sub-developments throughout the area. Fry Creek flows through the center of the project area. The proposed 1.5-acre detention facility will require the demolition of an existing residence that will be acquired by the City of Bixby. All material excavated for the construction of the detention facility will be used to raise the surrounding roadways above the 100-year flood level. A second residence to be acquired by the City of Bixby will be cleared for construction of a proposed energy dissipation and stilling basin downstream of the upgraded 113th Street culvert. Existing RCPs will be removed at 89th East Avenue (42-inch RCP) and East 113th Street (36-inch RCP). Seven sewer line encasements/drop structure locations and areas of stream bank stabilization locations are proposed along with the removal and replacement of 5 existing driveway aprons and segments of driveways along the east side of south 90th East Avenue. All project component locations are depicted in Figures 3 through 5 (attached).

URS has been retained by FEMA to prepare an Environmental Assessment for the proposed project. In compliance with the National Environmental Policy Act (NEPA) of 1969, as amended, URS requests that your agency review the proposed project and provide comments and any available information on resources under your agency's jurisdiction within the project area. If you have any questions or need additional information, please contact Brad Burford of URS at (301) 820-3491.

Sincerely,



Brad Burford, AWB®, CWT
URS Group, Inc.

Attachments as noted

cc: Mike Verderosa, URS
Jeffrey Reidenauer, Ph.D., URS



January 18, 2012

Oklahoma Department of Transportation
200 N.E. 21st Street
Oklahoma City, OK 73105

Re: Request for Project Review –90th Street Drainage Project, Bixby, Oklahoma

Dear Sir or Madam:

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Sincerely,



Brad Burford, AWB®, CWT
URS Group, Inc.

Attachments as noted

cc: Mike Verderosa, URS
Jeffrey Reidenauer, Ph.D., URS



January 18, 2012

Mr. William Ray
Oklahoma Department of Wildlife Conservation
P.O. Box 53465
Oklahoma City, OK 73152

Re: Request for Project Review –90th Street Drainage Project, Bixby, Oklahoma

Dear Mr. Ray:

The City of Bixby, Oklahoma, has been experiencing flooding problems along 90th East Avenue due to insufficient roadway heights and culvert capacities along Fry Creek. During rain events exceeding 1 inch, Fry Creek consistently floods – leaving 90th East Avenue completely inundated and causing roadway overtopping at 89th East Avenue and 113th Street. Residences and sanitary sewer crossings in this area are affected by flood waters to varying degrees depending on the amount and rate of precipitation.

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Sincerely,



Brad Burford, AWB®, CWT
URS Group, Inc.

Attachments as noted

cc: Mike Verderosa, URS
Jeffrey Reidenauer, Ph.D., URS



January 18, 2012

Oklahoma Department of Environmental Quality
P.O. Box 1677
Oklahoma City, OK 73101-1677

Re: Request for Project Review –90th Street Drainage Project, Bixby, Oklahoma

Dear Sir or Madam:

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Sincerely,



Brad Burford, AWB®, CWT
URS Group, Inc.

Attachments as noted

cc: Mike Verderosa, URS
Jeffrey Reidenauer, Ph.D., URS



January 18, 2012

Oklahoma Water Resources Board
3800 N Classen Blvd
Oklahoma City, OK 73118

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Sincerely,



Brad Burford, AWB®, CWT
URS Group, Inc.

Attachments as noted

cc: Mike Verderosa, URS
Jeffrey Reidenauer, Ph.D., URS



January 18, 2012

Mr. Gavin Brady
State Coordinator
National Flood Insurance Program
440 South Houston #2
Tulsa, OK 74127

Re: Request for Project Review –90th Street Drainage Project, Bixby, Oklahoma

Dear Mr. Brady:

The City of Bixby, Oklahoma, has been experiencing flooding problems along 90th East Avenue due to insufficient roadway heights and culvert capacities along Fry Creek. During rain events exceeding 1 inch, Fry Creek consistently floods – leaving 90th East Avenue completely inundated and causing roadway overtopping at 89th East Avenue and 113th Street. Residences and sanitary sewer crossings in this area are affected by flood waters to varying degrees depending on the amount and rate of precipitation.

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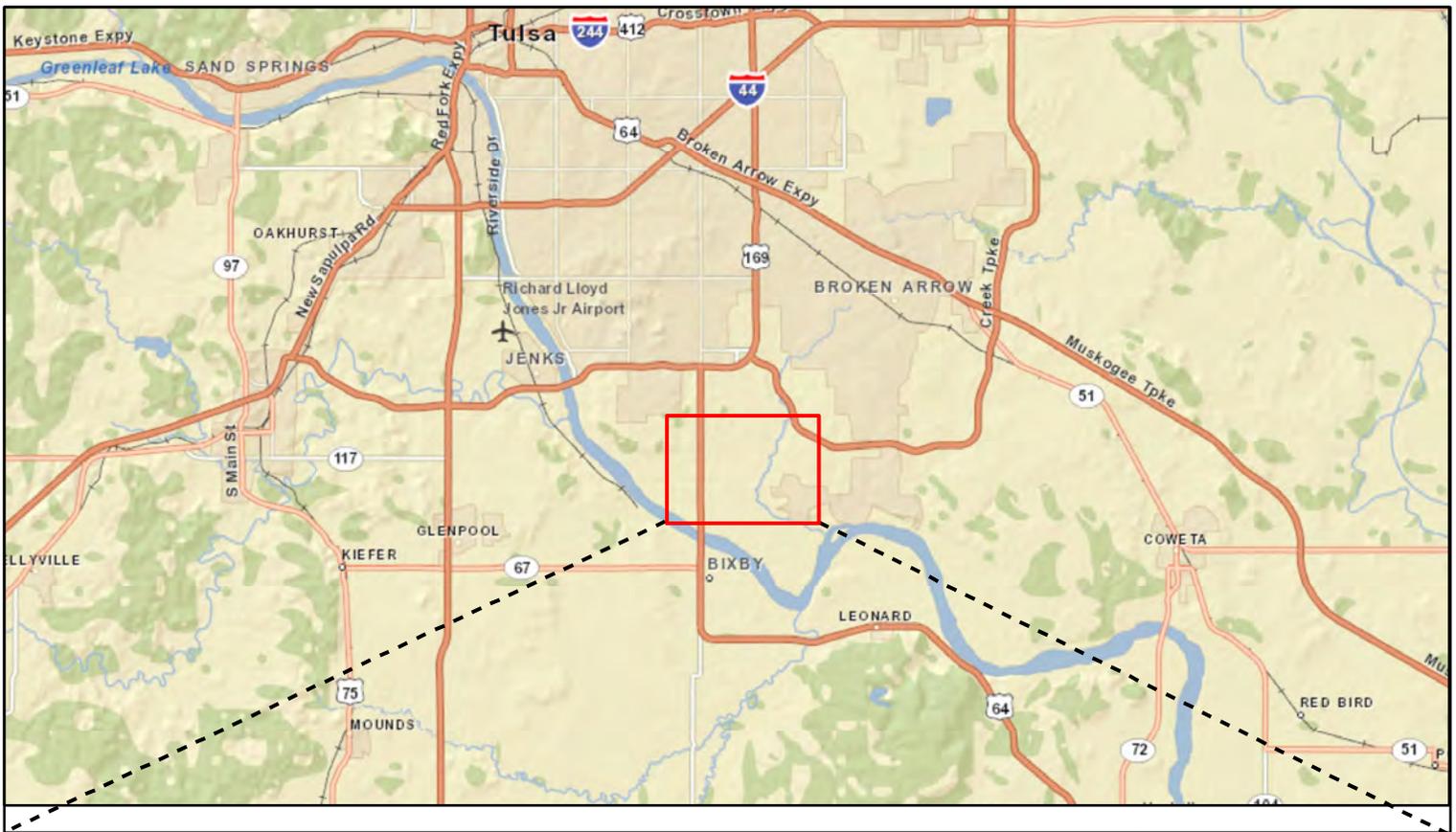
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Brad Burford, AWB®, CWT
URS Group, Inc.

Attachments as noted

cc: Mike Verderosa, URS
Jeffrey Reidenauer, Ph.D., URS



Source: ESRI ArcGIS Online and data partners, including imagery from agencies supplied via the Content Sharing Program



CLIENT		FEMA			TITLE		PROJECT VICINITY			
PROJ		90th Street Drainage Project			 12420 Milestone Center Drive Germantown, MD 20876		PROJ NO		15702509	
APPLICANT		City of Bixby, OK					SCALE		Not to Scale	
REVISION NO							DES BY		JK	
FILE		G:\Projects\Z_Short_Term_Projects\Bixby\MXD			CHK BY		BB		01/03/2012	
									FIGURE <h1>1</h1>	



Source: Microsoft Corporation - Bing Maps and its data suppliers, 2009

	Legend
	<ul style="list-style-type: none"> Proposed Project Area Proposed Drop Structure/Sanitary Sewer Encasement Stream Bank Restoration

CLIENT FEMA		TITLE PROJECT AREA	
PROJ 90th Street Drainage Project		<p>12420 Milestone Center Drive Germantown, MD 20876</p>	PROJ NO 15702509
APPLICANT City of Bixby, OK	SCALE 0 150 300 600 Feet		FIGURE 2
REVISION NO	DES BY JK	01/03/2012	
FILE G:\Projects\Z_Short_Term_Projects\Bixby\MXD	CHK BY BB	01/03/2012	



STEVEN A. THOMPSON
Executive Director

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

MARY FALLIN
Governor

January 26, 2012

Brad Burford
URS Group, Inc.
12420 Milestone Center Dr., Ste 150
Germantown, MD 20876

Re: City of Bixby – 90th Street Drainage Project

Dear Mr. Burford,

In response to your request, we have completed a general environmental review of the above referenced project. Based upon the current available information, we have no comments or objections.

Attached is a list of environmental recommendations that you should consider as you complete your project.

If you have any questions or need clarification, please contact me at 405.702.1077, 1.800.869.1400 or jennifer.wright@deq.ok.gov.

Best Wishes,

A handwritten signature in black ink that reads "Jennifer Wright". The signature is written in a cursive style with a large, looped "J" and "W".

Jennifer Wright
External Affairs Manager

Enclosure



LAND • AIR • WATER

Recommendations for Drinking Water and Wastewater Projects

During the environmental review process for drinking water and wastewater projects, the following recommendations are offered to assist in ensuring environmental compliance throughout the project.

- The proposed project should not result in adverse effects to the water quality or environment if the design and construction of all the new components are in accordance with state design guidelines or standards.
- Plans outlining changes or construction and the appropriate fee for plan review must be submitted to the Water Quality Division for approval prior to construction.
- Any project which includes the removal or installation of water and/or sewer lines shall conform to all relevant local and/or state plumbing codes.
- Any project which includes the removal of paint shall conform to all relevant lead-based paint regulations.
- Any project which includes the handling and/or removal of asbestos shall conform to all relevant asbestos regulations.
- During any construction, demolition, and/or rehabilitation reasonable precautions should be taken to protect air quality by minimizing fugitive dust emissions.
- If construction, demolition, and/or rehabilitation will disturb more than one acre of land, a determination should be made as to whether an Oklahoma Pollutant Discharge Elimination System (OPDES) permit for storm water is required during the construction phase.
- Any solid or hazardous waste from the site shall be recycled and/or disposed of in accordance with all relevant solid waste and/or RCRA regulations.



This publication is issued by the Oklahoma Department of Environmental Quality authorized by Steven A. Thompson, Executive Director. Copies have been prepared at a cost of \$0.0035 each. Copies have been deposited with the publications clearinghouse of the Oklahoma Department of Libraries. (factsheets\csd\DW_WWprojects.indd) 10/10.

United States Department of Agriculture



Natural Resources Conservation Service, 5401 S. Sheridan Rd., Suite 201, Tulsa, OK 74145

918.280.1596

January 27, 2012

Brad Burford
URS Group, Inc.
12420 Milestone Center Drive, Suite 150
Germantown, MD 20876

RE: Prime Farmland Review for City of Bixby, Oklahoma, 90th Street Drainage
Project; Located in Tulsa County, Oklahoma

Dear Mr. Burford:

We have reviewed the proposed project as described above. Based on our review, we have determined that the proposed project will not result in any adverse impact on prime farmland.

Thanks for the opportunity to comment on this proposed action early in the planning stage. If you have any questions concerning this response, I can be contacted by phone at (918) 280-1596.

Sincerely,

A handwritten signature in blue ink that reads "Gary Bishop". The signature is written in a cursive, flowing style.

GARY BISHOP
District Conservationist



**STATE OF OKLAHOMA
WATER RESOURCES BOARD**

www.owrb.ok.gov

OKLAHOMA WATER RESOURCES BOARD

Planning & Management Division
Oklahoma City, OK

PUBLIC NOTICE REVIEW

We have no comments to offer. We offer the following comments.

WE RECOMMEND THAT YOU CONTACT THE LOCAL FLOODPLAIN ADMINISTRATOR FOR POSSIBLE PERMIT REQUIREMENTS FOR THIS PROJECT. THE OWRB WEB SITE, www.owrb.ok.gov, contains a directory of floodplain administrators and is located under forms/floodplain management/floodplain administrators, listed alphabetically by name of community. **If this development would fall on STATE OWNED or operated property, a floodplain development permit is required from OWRB.** The Chapter 55 Rules and permit application for this requirement can be found on the OWRB web site listed above. If this project is proposed in a non-participating community, try to ensure that this project is completed so that it is reasonably safe from flooding and so that it does not flood adjacent property if at all possible.

Reviewer: Cathy Poage, CFM

Date: 01/31/2012

Project Name: Proposed 90th Street Drainage Project in Bixby, OK. Located in Bixby, Tulsa County, OK

FIRM Name: URS Group, Inc., Brad Burford, AWB, CWT

* Bixby participates in the NFIP and has a floodplain development permitting system. Please contact Bixby Floodplain Administrator, Erik Enyart CFM, at (918) 366-4430.



February 6, 2012

Mr. Erik Enyart
Bixby Floodplain Administrator
P.O. Box 70
Bixby, OK 74008

Re: Request for Project Review –90th Street Drainage Project, Bixby, Oklahoma

Dear Mr. Enyart:

The City of Bixby, Oklahoma, has been experiencing flooding problems along 90th East Avenue due to insufficient roadway heights and culvert capacities along Fry Creek. During rain events exceeding 1 inch, Fry Creek consistently floods – leaving 90th East Avenue completely inundated and causing roadway overtopping at 89th East Avenue and East 113th Street. Residences and sanitary sewer crossings in this area are affected by flood waters to varying degrees depending on the amount and rate of precipitation.

During flooding events, area motorists who use 90th East Avenue to access main arterial streets are cut off. There are seven residences whose only access becomes completely inaccessible during flood events; residents must wait for the waters to recede to leave or regain access to their properties. During flood events, emergency vehicles are unable to access these homes in a timely manner because of the road closures. The flood events place a strain on sanitary sewer crossings within the area, leading to weakening of and/or damage to lines. The heavy discharge rate of water from these flooding events has also led to stream bank shearing and deterioration.

The City of Bixby has requested FEMA funding under the Hazard Mitigation Grant Program (HMGP) to develop drainage system enhancements and flood control structures to address the recurring flooding in the project area. The City would construct a detention facility, upgrade culvert conveyance to accommodate 100-year flows, elevate existing roadways above the 100-year flood level, construct/update seven sanitary sewer encasements/drop structures, and stabilize stream banks. Specific project components include:

- Constructing a 1.5-acre water detention facility located west of and adjacent to 90th East Avenue,
- Elevating 90th East Avenue and portions of 89th East Avenue and East 113th Street above the 100-year flood event,
- Replacing an existing 36-inch reinforced concrete pipe (RCP) culvert with a triple 8-foot x 6-foot reinforced concrete box (RCB) at Basin outlet on East 113th Street Bridge,
- Replacing an existing 42-inch RCP culvert with a triple 8-foot x 6-foot RCB culvert at the Basin inlet on 89th East Avenue Street Bridge,

- Replacing/upgrading sanitary sewer lines and creating seven sanitary sewer encasements/drop structures,
- The creation of a 0.11-acre energy dissipation area at the East 113th Street culvert outflow,
- Stabilizing of stream bank within sewer line right-of-ways, and
- Demolishing two houses and removing any associated landscaping or paving.

The project area is located in the City of Bixby, Tulsa County, Oklahoma (Figures 1 and 2), and is comprised of suburban dwellings with associated manicured plots and lawns, interspersed with small areas of trees. A meandering network of paved roadways allows access to the many sub-developments throughout the area. Fry Creek flows through the center of the project area. The proposed 1.5-acre detention facility will require the demolition of an existing residence that will be acquired by the City of Bixby. All material excavated for the construction of the detention facility will be used to raise the surrounding roadways above the 100-year flood level. A second residence to be acquired by the City of Bixby will be cleared for construction of a proposed 0.11-acre energy dissipation area downstream of the upgraded 113th Street culvert. Existing RCPs will be removed at 89th East Avenue (42-inch RCP) and East 113th Street (36-inch RCP). Seven sewer line encasements/drop structure and related stream bank stabilization locations are proposed along with the removal and replacement of 5 existing driveway aprons and segments of driveways along the east side of south 90th East Avenue. All project component locations are depicted in Figure 2 (attached).

URS has been retained by FEMA to prepare an Environmental Assessment for the proposed project. In compliance with the National Environmental Policy Act (NEPA) of 1969, as amended, URS requests that your agency review the proposed project and provide comments and any available information on resources under your agency's jurisdiction within the project area. If you have any questions or need additional information, please contact Brad Burford of URS at (301) 820-3491.

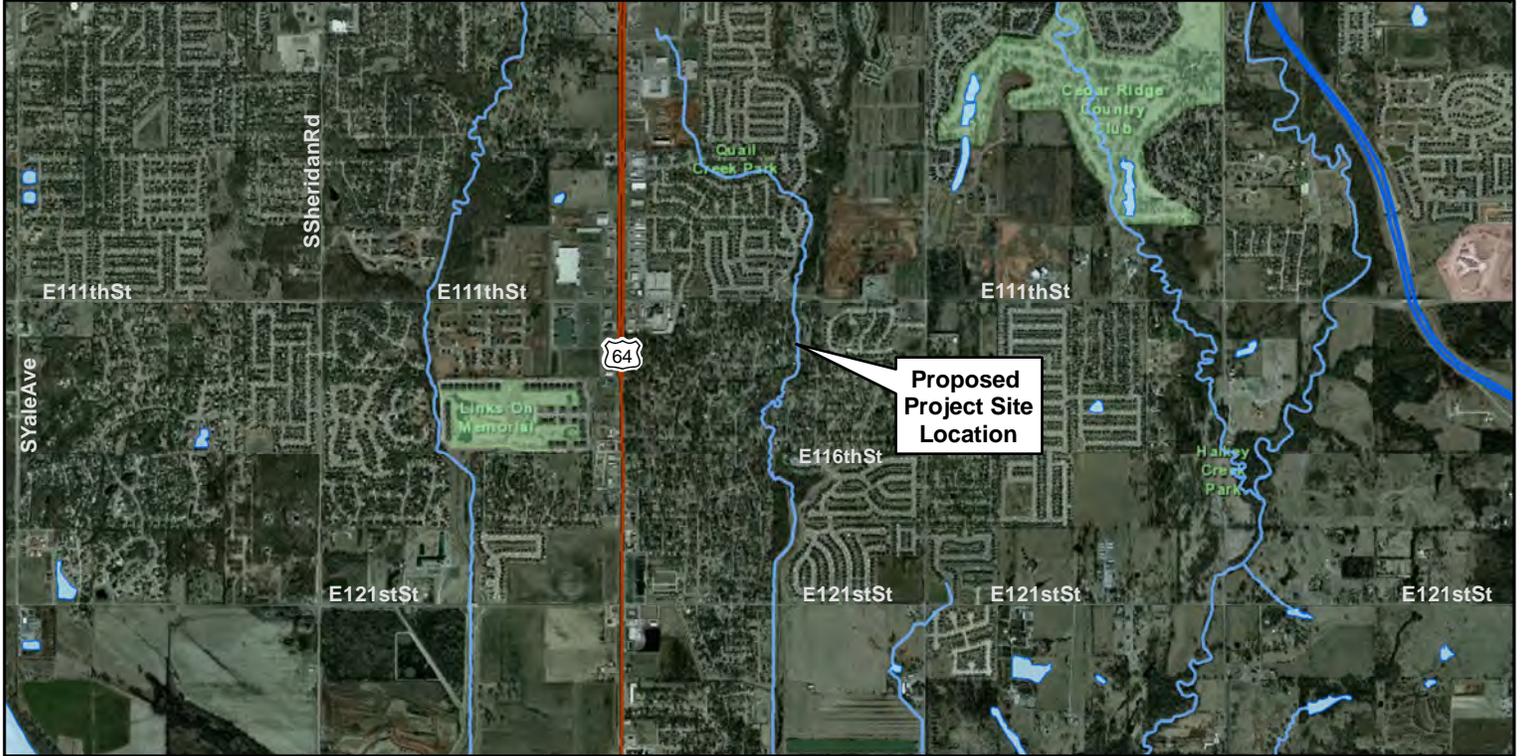
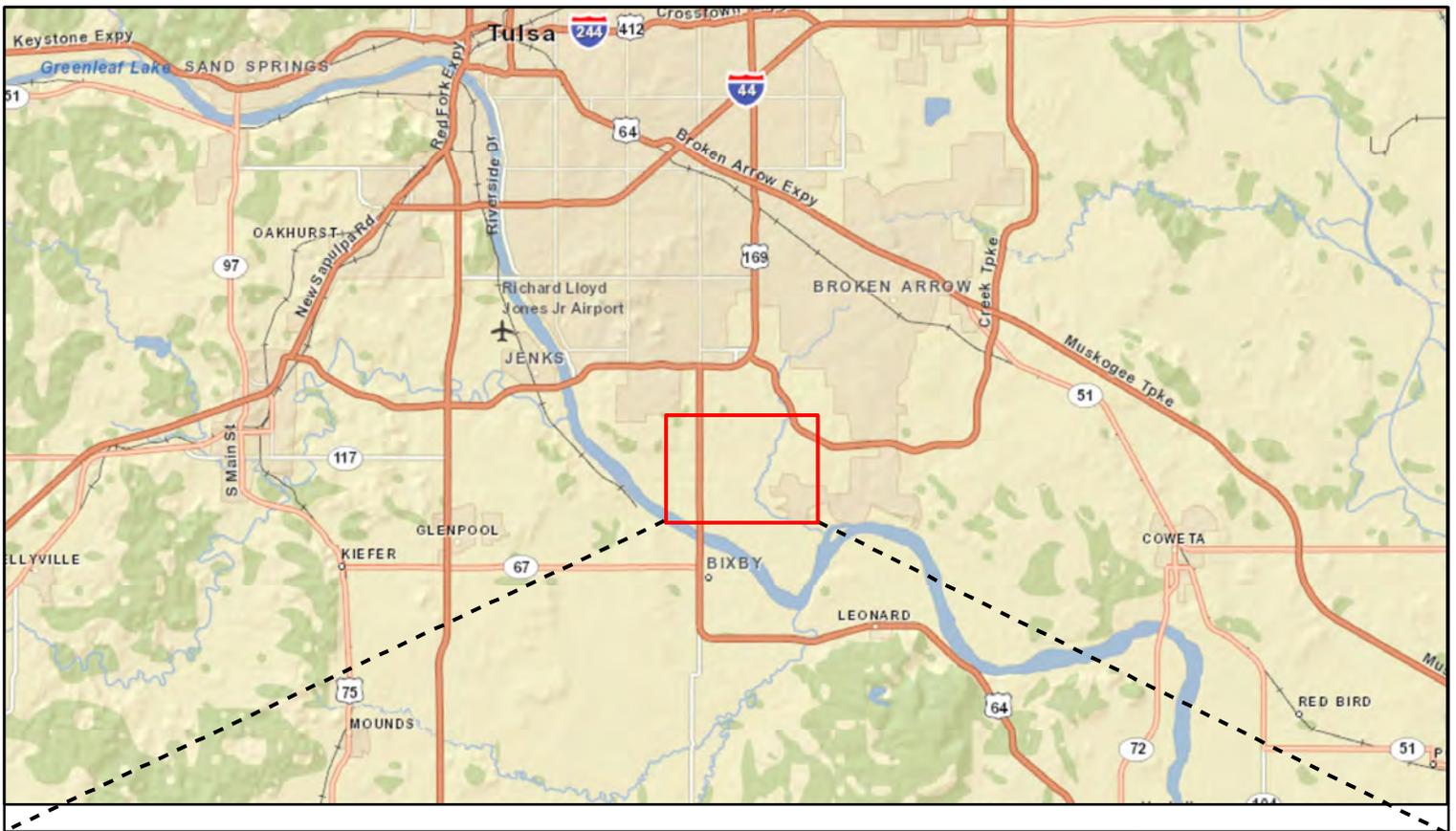
Sincerely,



Brad Burford, AWB®, CWT
URS Group, Inc.

Attachments as noted

cc: Mike Verderosa, URS
Jeffrey Reidenauer, Ph.D., URS



Source: ESRI ArcGIS Online and data partners, including imagery from agencies supplied via the Content Sharing Program



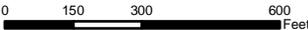
CLIENT		FEMA			TITLE		PROJECT VICINITY				
PROJ		90th Street Drainage Project			 12420 Milestone Center Drive Germantown, MD 20876		PROJ NO		15702509		
APPLICANT		City of Bixby, OK					SCALE		Not to Scale		
REVISION NO							DES BY		JK		
FILE		G:\Projects\Z_Short_Term_Projects\Bixby\MXD			CHK BY		BB		01/03/2012		
									FIGURE		1



Legend

-  Proposed Project Area
-  Proposed Drop Structure/Sanitary Sewer Encasement

Source: Microsoft Corporation - Bing Maps and its data suppliers, 2009

CLIENT		FEMA		TITLE		PROJECT AREA		
PROJ		90th Street Drainage Project		 12420 Milestone Center Drive Germantown, MD 20876		PROJ NO		15702509
APPLICANT		City of Bixby, OK				FIGURE		2
REVISION NO		SCALE						
FILE		DES BY	JK	01/03/2012				
		CHK BY	BB	01/03/2012				



CITY OF BIXBY
P.O. Box 70
116 W. Needles Ave.
Bixby, OK 74008
(918) 366-4430
(918) 366-6373 (fax)

Monday, February 06, 2012

URS Group, Inc.
Attn: Brad Burford, AWB®, CWT
12420 Milestone Center Drive, Suite 150
Germantown, MD 20876

RE: Project Review – 90th East Avenue Drainage Project, Bixby, Oklahoma

Dear Mr. Burford:

In your February 06, 2012 letter, you requested a response to the above-referenced project in the City of Bixby, Oklahoma, as it pertains to my purview as the Bixby Floodplain Administrator.

The project, to be funded in part by a FEMA grant, essentially consists of removal of flood-prone dwellings, elevation of certain streets above the 100-year flood event, construction of a stormwater detention area, and related stormwater and other infrastructure improvements.

The planned improvements would reduce the risk of flooding for the affected area and generally enhance the performance of the area stormwater drainage system. The City of Bixby supports this infrastructure improvement project and recommends its approval.

Thank you for your time and consideration. If you have any questions or need additional information, please do not hesitate to contact me at (918) 366-0427 or eenyart@bixby.com.

Sincerely,

Erik Enyart, AICP, CFM
City Planner / Floodplain Administrator

Copy: City Manager Doug Enevoldsen
City Engineer Jared Cottle, PE
Public Works Director Bea Aamodt, PE
file

USACE Permitting Correspondence

CITY OF BIXBY

P.O. Box 70
116 W. Needles Ave.
BIXBY, OK 74008
(918) 366-4430
(918) 366-6373 (fax)

CITY MANAGER:
Micky Webb
ASSISTANT CITY MANAGER:
Mike Webster
CITY CLERK:
Cheryl Sasser
CITY TREASURER:
Rebecca K. Byers
PUBLIC WORKS DIRECTOR:
Beatriz Aamodt, P.E.
CITY ENGINEER:
Jared Cottle, P.E.

CITY COUNCIL:
Ray Bowen, Mayor
Steve Todoroff, Vice Mayor
Joe Williams
Tom Daniels
CITY ATTORNEY:
Phil Frazier

U. S. Army Corps of Engineers

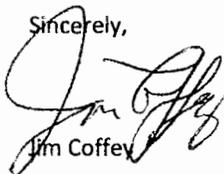
Andy Commer

1645 S 101st East Avenue

Tulsa, Ok 74128

The City of Bixby is making application for a HMGP grant from FEMA. The project is the enhancement of a drainage system along a present drainage ditch to retain storm water runoff to deliver flows in such a manner and at such a time to protect property in the area. The project will include the creation of a detention pond by the removal of two structures and the elevation of the adjacent streets. The project is located in Southwood Extended Amended, City of Bixby, Tulsa County, Section 36, Township 18 North, Range 13 East. Please address your comments concerning the project to City of Bixby, P O Box 70, Bixby, OK 74008. Should you have questions or need additional information please contact Jim Coffey at (918) 261-0423, fax (918) 299-0658, jkc Coffey@cox.net, or P O Box 70, Bixby, Ok 74008.

Sincerely,



Jim Coffey

JKC Enterprises LLC, Consultant



DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, TULSA DISTRICT
1645 SOUTH 101ST EAST AVENUE
TULSA, OKLAHOMA 74128-4609

July 23, 2008

Regulatory Office

Mr. Jim Coffey
City of Bixby
Post Office Box 70
Bixby, OK 74008

Dear Mr. Coffey:

This is in reference your letter, concerning the City of Bixby's HMGP grant from FEMA. The proposed project is located in Bixby, Tulsa County, Oklahoma. We have reviewed the submitted data relative to Section 404 of the Clean Water Act (CWA).

Based on the provided information the construction of the new stormwater basin would result in the placement of dredged or fill material, permanently or temporarily, into Fry Creek. Therefore, this proposal is subject to regulation pursuant to Section 404 of the CWA, and a Department of the Army (DA) permit will be required.

Enclosed please find a DA permit application and a Regulatory Program applicant information packet. Please complete the application and return it to our office.

Your project has been assigned Identification Number 2008-406. Please refer to this number during future correspondence. If further assistance is required, contact Mr. Marcus Ware at 918-669-7403.

Sincerely,

A handwritten signature in cursive script that reads "David A. Manning".

David A. Manning
Chief, Regulatory Office

Enclosures

CITY OF BIXBY

P.O. Box 70
116 W. Needles Ave.
BIXBY, OK 74008
(918) 366-4430
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Rebecca K. Byers

PUBLIC WORKS DIRECTOR:

Beatriz Aamodt, P.E.

ACTING CITY ENGINEER:

Jarred Cottle, P.E.
February 5, 2009

CITY COUNCIL:

Ray Bowen, Mayor

Tom Daniels, Vice Mayor

Joe Williams

Steve Todoroff

Patty Ferree

CITY ATTORNEY:

Phil Frazier

David A Manning
Chief, Regulatory Office
Department of the Army
Corps of Engineers, Tulsa District
1645 South 101st East Avenue
Tulsa, Oklahoma 74128-4609

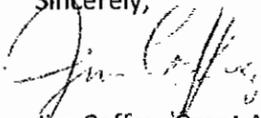
Dear Mr. Manning:

In reference to your letter of July 23, 2008 (attached), identification Number 2008-406, concerning City of Bixby's HMGP grant from FEMA. Clarification is requested concerning the second paragraph that states, "Construction of the new storm water basin would result in the placement of dredged or fill material, permanently or temporarily, into Fry Creek."

The project is located in a subdivision approximately a mile north of Fry Creek Channel No. 1 on an existing drainage ditch. The project includes widening the local drainage channel and using the excavated materials to elevate adjacent roadways above the 100 year floodplain. (Currently the roadways are inundated with only 2"-3" rainfall events.) The approach will provide compensatory storage for the entire project.

Attached is a location map and the conceptual construction plan you previously received. Please respond to City of Bixby, attention Jim Coffey, P O Box 70, Bixby, Ok 74008. Questions can be directed to Jared Cottle, City Engineer, 918-366-4430.

Sincerely,



Jim Coffey, Grant Administration



DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, TULSA DISTRICT
1846 SOUTH 101ST EAST AVENUE
TULSA, OKLAHOMA 74128-4808

March 13, 2009

Regulatory Office

Project Name: City of Bixby's HMGP grant (Note 5: Two Culverts)

Corps Case No.: 2008-406

Corps POC: Mr. Marcus A. Ware, 918-669-7403

Mr. Jim Coffey
City of Bixby
Post Office Box 70
Bixby, OK 74008

Dear Mr. Coffey:

Please reference your correspondence dated February 5, 2009, concerning the above listed project.

Please review the enclosed Nationwide Permits (NWP) concerning your proposed placement of dredged or fill material into aquatic areas. Provided you comply with all the terms and conditions therein, the project may proceed at any time. If you cannot comply with the conditions of the NWP, please reply.

This NWP is scheduled to expire on March 18, 2012. It is incumbent on you to remain informed of changes to the NWP. The Corps will issue a public notice announcing the changes as they occur. Furthermore, if you commence, or are under contract to commence, the activity before the date the NWP is modified or revoked, you will have 12 months from the date of the modification or revocation to complete the activity under the present terms and conditions of this NWP.

Sincerely,

A handwritten signature in black ink, appearing to read "David A. Manning".

David A. Manning
Chief, Regulatory Office

Enclosures

Nationwide Permit 14
Linear Transportation Projects

Activities required for the construction, expansion, modification, or improvement of linear transportation projects (e.g., roads, highways, railways, trails, airport runways, and taxiways) in waters of the United States. The discharge cannot cause the loss of greater than 1/2 acre of waters of the United States. Any stream channel modification, including bank stabilization, is limited to the minimum necessary to construct or protect the linear transportation project; such modifications must be in the immediate vicinity of the project. This Nationwide Permit (NWP) also authorizes temporary structures, fills, and work necessary to construct the linear transportation project. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary structures, work, and discharges, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Temporary fills must consist of materials, and be placed in a manner, that will not be eroded by expected high flows. Temporary fills must be removed in their entirety, and the affected areas returned to pre-construction elevations. The areas affected by temporary fills must be revegetated, as appropriate. This NWP cannot be used to authorize non-linear features commonly associated with transportation projects, such as vehicle maintenance or storage buildings, parking lots, train stations, or aircraft hangars.

Notification: The permittee must submit a pre-construction notification (PCN) to the District Engineer (DE) prior to commencing the activity if: (1) The loss of waters of the United States exceeds 1/10 of an acre; or (2) there is a discharge in a wetland or other special aquatic site. Specific information is required to be submitted under General Condition (GC) 27 PCN order to qualify for a NWP.

Note: Some discharges for the construction of farm roads or forest roads, or temporary roads for moving mining equipment, may qualify for an exemption under Section 404(f) of the CWA (see 33 CFR 323.4).

This NWP is authorized pursuant to Section 404(e) of the CWA (33 U.S.C. 1344) and Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 401 et seq.). The effective date for this NWP (33 CFR 330), GCs, and definitions is March 19, 2007, as published in the Federal Register. The NWP, GCs, and definitions expire on March 18, 2012.

General Conditions

1. Navigation.

- a. No activity may cause more than a minimal adverse effect on navigation.
- b. Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the United States.
- c. The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the U.S. Army Corps of Engineers (Corps), to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

2. Aquatic Life Movements. No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. Culverts placed in streams must be installed to maintain low flow conditions.

3. Spawning Areas. Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized.

4. Migratory Bird Breeding Areas. Activities in waters of the United States that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.

5. Shellfish Beds. No activity may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWPs 4 and 48.

6. Suitable Material. No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see Section 307 of the CWA).

7. Water Supply Intakes. No activity may occur in the proximity of a public water supply intake, except where the activity is for the repair or improvement of public water supply intake structures or adjacent bank stabilization.

8. Adverse Effects From Impoundments. If the activity creates an impoundment of water, adverse effects to the aquatic system due to accelerating the passage of water, and/or restricting its flow must be minimized to the maximum extent practicable.

9. Management of Water Flows. To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization and stormwater management activities, except as provided below. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows, unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).
10. Fills Within 100-Year Flood Plains. The activity must comply with applicable Federal Emergency Management Agency (FEMA) approved State or local flood plain management requirements.
11. Equipment. Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance.
12. Soil Erosion and Sediment Controls. Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow.
13. Removal of Temporary Fills. Temporary fills must be removed in their entirety, and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.
14. Proper Maintenance. Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety.
15. Wild and Scenic Rivers. No activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, unless the appropriate Federal agency with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status. Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency in the area (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service (USFWS)).
16. Tribal Rights. No activity or its operation may impair reserved Tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.
17. Endangered Species.
- a. No activity is authorized under any NWP which is likely to jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will destroy or adversely modify the critical habitat of such species. No activity is authorized under any NWP which "may affect" a listed species or critical habitat, unless Section 7 consultation addressing the effects of the proposed activity has been completed.
 - b. Federal agencies should follow their own procedures for complying with the requirements of the ESA. Federal permittees must provide the DE with the appropriate documentation to demonstrate compliance with those requirements.
 - c. Non-Federal permittees shall notify the DE if any listed species or designated critical habitat might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, and shall not begin work on the activity until notified by the DE that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that might affect Federally-listed endangered or threatened species or designated critical habitat, the PCN must include the name(s) of the endangered or threatened species that may be affected by the proposed work or that utilize the designated critical habitat that may be affected by the proposed work. The DE will determine whether the proposed activity "may affect" or will have "no effect" to listed species and designated critical habitat and will notify the non-Federal applicant of the Corps determination within 45 days of receipt of a complete PCN. In cases where the non-Federal applicant has identified listed species or critical habitat that might be affected or is in the vicinity of the project, and has so notified the Corps, the applicant shall not begin work until the Corps has provided notification the proposed activities will have "no effect" on listed species or critical habitat, or until Section 7 consultation has been completed.
 - d. As a result of formal or informal consultation with the USFWS, the DE may add species-specific regional endangered species conditions to the NWPs.
 - e. Authorization of an activity by a NWP does not authorize the "take" of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with "incidental take"

provisions, etc.) from the USFWS or the National Marine Fisheries Service (NMFS), both lethal and non-lethal "takes" of protected species are in violation of the ESA. Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the USFWS or their world wide Web pages at <http://www.fws.gov/> and <http://www.noaa.gov/fisheries.html> respectively.

18. Historic Properties.

a. In cases where the DE determines that the activity may affect properties listed, or eligible for listing, in the National Register of Historic Places, the activity is not authorized, until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied.

b. Federal permittees should follow their own procedures for complying with the requirements of Section 106 of the NHPA. Federal permittees must provide the DE with the appropriate documentation to demonstrate compliance with those requirements.

c. Non-Federal permittees must submit a PCN to the DE if the authorized activity may have the potential to cause effects to any historic properties listed, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties. For such activities, the PCN must state which historic properties may be affected by the proposed work or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location of or potential for the presence of historic resources can be sought from the State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Officer (THPO), as appropriate, and the National Register of Historic Places (see 33 CFR 330.4(g)). The DE shall make a reasonable and good faith effort to carry out appropriate identification efforts, which may include background research, consultation, oral history interviews, sample field investigation, and field survey. Based on the information submitted and these efforts, the DE shall determine whether the proposed activity has the potential to cause an effect on the historic properties.

Where the non-Federal applicant has identified historic properties which the activity may have the potential to cause effects and so notified the Corps, the non-Federal applicant shall not begin the activity until notified by the DE either that the activity has no potential to cause effects or that consultation under Section 106 of the NHPA has been completed.

d. The DE will notify the prospective permittee within 45 days of receipt of a complete PCN whether NHPA Section 106 consultation is required. Section 106 consultation is not required when the Corps determines that the activity does not have the potential to cause effects on historic properties (see 36 CFR 800.3(a)). If NHPA Section 106 consultation is required and will occur, the DE will notify the non-Federal applicant that he or she cannot begin work until Section 106 consultation is completed.

e. Prospective permittees should be aware that Section 110k of the NHPA (16 U.S.C. 470h-2(k)) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of Section 106 of the NHPA, has intentionally, significantly, or adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, explaining the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the applicant, SHPO/THPO, appropriate Indian tribes if the undertaking occurs on or affects historic properties on Tribal lands or affects properties of interest to those tribes, and other parties known to have a legitimate interest in the impacts to the permitted activity on historic properties.

19. Designated CRW. The CRW include State natural heritage sites, and outstanding National resource waters or other waters officially designated by a State as having particular environmental or ecological significance and identified by the DE after notice and opportunity for public comment. The DE may also designate additional CRW after notice and opportunity for comment.

a. Discharges of dredged or fill material into waters of the United States are not authorized by NHPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, and 50 for any activity within, or directly affecting, CRW, including wetlands adjacent to such waters.

b. For NHPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, and 38, notification is required in accordance with GC 27, for any activity proposed in the designated CRW including wetlands adjacent to those waters. The DE may authorize activities under these NHPs only after it is determined that the impacts to the GC will be no more than minimal.

20. Mitigation. The DE will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that adverse effects on the aquatic environment are minimal:

- a. The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States to the maximum extent practicable at the project site (i.e., on site).
- b. Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating) will be required to the extent necessary to ensure that the adverse effects to the aquatic environment are minimal.
- c. Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed 1/10 acre and require PCN, unless the DE determines in writing that some other form of mitigation would be more environmentally appropriate and provides a project-specific waiver of this requirement. For wetland losses of 1/10 acre or less that require PCN, the DE may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in minimal adverse effects on the aquatic environment. Since the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, wetland restoration should be the first compensatory mitigation option considered.
- d. For losses of streams or other open waters that require PCN, the DE may require compensatory mitigation, such as stream restoration, to ensure that the activity results in minimal adverse effects on the aquatic environment.
- e. Compensatory mitigation will not be used to increase the acreage losses allowed by the acreage limits of the NWP. For example, if an NWP has an acreage limit of 1/2 acre, it cannot be used to authorize any project resulting in the loss of greater than 1/2 acre of waters of the United States, even if compensatory mitigation is provided that replaces or restores some of the lost waters. However, compensatory mitigation can and should be used, as necessary, to ensure that a project already meeting the established acreage limits also satisfies the minimal impact requirement associated with the NWP.
- f. Compensatory mitigation plans for projects in or near streams or other open waters will normally include a requirement for the establishment, maintenance, and legal protection (e.g., conservation easements) of riparian areas next to open waters. In some cases, riparian areas may be the only compensatory mitigation required. Riparian areas should consist of native species. The width of the required riparian area will address documented water quality or aquatic habitat loss concerns. Normally, the riparian area will be 25 to 50 feet wide on each side of the stream, but the DE may require slightly wider riparian areas to address documented water quality or habitat loss concerns. Where both wetlands and open waters exist on the project site, the DE will determine the appropriate compensatory mitigation (e.g., riparian areas and/or wetlands compensation) based on what is best for the aquatic environment on a watershed basis. In cases where riparian areas are determined to be the most appropriate form of compensatory mitigation, the DE may waive or reduce the requirement to provide wetland compensatory mitigation for wetland losses.
- g. Permittees may propose the use of mitigation banks, in-lieu fee arrangements, or separate activity-specific compensatory mitigation. In all cases, the mitigation provisions will specify the party responsible for accomplishing and/or complying with the mitigation plan.
- h. Where certain functions and services of waters of the United States are permanently adversely affected, such as the conversion of a forested or scrub-shrub wetland to a herbaceous wetland in a permanently maintained utility line right-of-way, mitigation may be required to reduce the adverse effects of the project to the minimal level.
21. Water Quality. Where States and authorized Tribes, or EPA where applicable, have not previously certified compliance of an NWP with CWA Section 401, individual 401 WQC must be obtained or waived (see 33 CFR 330.4(e)). The DE or State or Tribe may require additional water quality management measures to ensure that the authorized activity does not result in more than minimal degradation of water quality. Any issued 401 WQC is attached.
22. Coastal Zone Management. In coastal States where an NWP has not previously received a State coastal zone management consistency concurrence, an individual State coastal zone management consistency concurrence must be obtained, or a presumption of concurrence must occur (see 33 CFR 330.4(d)). The DE or a State may require additional measures to ensure that the authorized activity is consistent with State coastal zone management requirements.
23. Regional and Case-By-Case Conditions. The activity must comply with any regional conditions that may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the State, Indian Tribe, or EPA in its Section 401 WQC, or by the State in its Coastal Zone Management Act consistency determination.
24. Use of Multiple NWPs. The use of more than one NWP for a single and complete project is prohibited, except when the acreage loss of waters of the United States authorized by the NWPs does not exceed the acreage limit of the NWP with the highest specified acreage limit. For example, if a road crossing over tidal waters is constructed under NWP 14, with associated bank stabilization authorized by NWP 13, the maximum acreage loss of waters of the United States for the total project cannot exceed 1/3 acre.
25. Transfer of NWP Verifications. If the permittee sells the property associated with a NWP verification, the permittee may transfer the NWP verification to the new owner by submitting a letter to the appropriate Corps district office to validate the transfer. A copy of the NWP verification must be attached to the letter, and the letter must contain the following statement and signature: "When the structures or work authorized by this NWP are still in existence at the time the property is transferred, the

terms and conditions of this NWP, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this NWP and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below."

(Transferee)

(Date)

26. **Compliance Certification.** Each permittee who received NWP verification from the Corps must submit a signed certification regarding the completed work and any required mitigation. The certification form must be forwarded to the Corps with the NWP verification letter and will include:

- a. A statement that the authorized work was done in accordance with the NWP authorization, including any general or specific conditions;
- b. A statement that any required mitigation was completed in accordance with the permit conditions; and
- c. The signature of the permittee certifying the completion of the work and mitigation.

27. **PCN.**

a. **Timing.** Where required by the terms of the NWP, the prospective permittee must notify the DE by submitting a PCN as early as possible. The DE must determine if the PCN is complete within 30 calendar days of the date of receipt and, as a general rule, will request additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the DE will notify the prospective permittee that the PCN is still incomplete and the PCN review process will not commence until all of the requested information has been received by the DE. The prospective permittee shall not begin the activity:

(1) Until notified in writing by the DE that the activity may proceed under the NWP with any special conditions imposed by the district or division engineer; or

(2) If 45 calendar days have passed from the DE's receipt of the complete PCN and the prospective permittee has not received written notice from the district or division engineer. However, if the permittee was required to notify the Corps pursuant to GC 17 that listed species or critical habitat might be affected or in the vicinity of the project, or to notify the Corps pursuant to GC 18 that the activity may have the potential to cause effects to historic properties, the permittee cannot begin the activity until receiving written notification from the Corps that is "no effect" on listed species or "no potential to cause effects" on historic properties, or that any consultation required under Section 7 of the ESA (see 33 CFR 330.4(f)) and/or Section 106 of the National Historic Preservation Act (see 33 CFR 330.4(g)) is completed. Also, work cannot begin under NWPs 21, 49, or 50 until the permittee has received written approval from the Corps. If the proposed activity requires a written waiver to exceed specified limits of an NWP, the permittee cannot begin the activity until the DE issues the waiver. If the district or division engineer notifies the permittee in writing that an individual permit is required within 45 calendar days of receipt of a complete PCN, the permittee cannot begin the activity until an individual permit has been obtained. Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

b. **Contents of PCN:** The PCN must be in writing and include the following information:

(1) Name, address and telephone numbers of the prospective permittee;

(2) Location of the proposed project;

(3) A description of the proposed project; the project's purpose; direct and indirect adverse environmental effects the project would cause; any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity. The description should be sufficiently detailed to allow the DE to determine that the adverse effects of the project will be minimal and to determine the need for compensatory mitigation. Sketches should be provided when necessary to show that the activity complies with the terms of the NWP. (Sketches usually clarify the project and when provided, result in a quicker decision.);

(4) The PCN must include a delineation of special aquatic sites and other waters of the United States on the project site.

Wetland delineations must be prepared in accordance with the current method required by the Corps. The permittee may ask the Corps to delineate the special aquatic sites and other waters of the United States, but there may be a delay if the Corps does the delineation, especially if the project site is large or contains many waters of the United States. Furthermore, the 45-day period will not start until the delineation has been submitted to or completed by the Corps, where appropriate;

(5) If the proposed activity will result in the loss of greater than 1/10 acre of wetlands and a PCN is required, the prospective permittee must submit a statement describing how the mitigation requirement will be satisfied. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan.

(6) If any listed species or designated critical habitat might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, for non-Federal applicants the PCN must include the name(s) of those endangered or threatened species that might be affected by the proposed work or utilize the designated critical habitat that may be affected by the proposed work. Federal applicants must provide documentation demonstrating compliance with the ESA; and
(7) For an activity that may affect a historic property listed on, determined to be eligible for listing on, or potentially eligible for listing on, the National Register of Historic Places, for non-Federal applicants the PCN must state which historic property may be affected by the proposed work or include a vicinity map indicating the location of the historic property. Federal applicants must provide documentation demonstrating compliance with Section 106 of the NHPA.

c. Form of PCN: The standard individual permit application form (Form ENG 4345) may be used, but the completed application form must clearly indicate that it is a PCN and must include all of the information required in paragraphs (b)(1) through (7) of this GC. A letter containing the required information may also be used.

d. Agency Coordination:

(1) The DE will consider any comments from Federal and State agencies concerning the proposed activity's compliance with the terms and conditions of the NWP and the need for mitigation to reduce the project's adverse environmental effects to a minimal level.

(2) For all NWP 48 activities requiring PCN and for other NWP activities requiring PCN to the DE that result in the loss of greater than 1/2 acre of waters of the United States, the DE will immediately provide (e.g., via facsimile transmission, overnight mail, or other expeditious manner) a copy of the PCN to the appropriate Federal or State offices (USFWS, State natural resource or water quality agency, EPA, SHPO, THPO, and, if appropriate, the NMFS). With the exception of NWP 37, these agencies will then have 10 calendar days from the date the material is transmitted to telephone or fax the DE notice that they intend to provide substantive, site-specific comments. If so contacted by an agency, the DE will wait an additional 15 calendar days before making a decision on the PCN. The DE will fully consider agency comments received within the specified time frame, but will provide no response to the resource agency, except as provided below. The DE will indicate in the administrative record associated with each PCN that the resource agencies' concerns were considered. For NWP 37, the emergency watershed protection and rehabilitation activity may proceed immediately in cases where there is an unacceptable hazard to life or a significant loss of property or economic hardship will occur. The DE will consider any comments received to decide whether the NWP 37 authorization should be modified, suspended, or revoked in accordance with the procedures at 33 CFR 330.5.

(3) In cases of where the prospective permittee is not a Federal agency, the DE will provide a response to NMFS within 30 calendar days of receipt of any Essential Fish Habitat conservation recommendations, as required by Section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act.

(4) Applicants are encouraged to provide the Corps multiple copies of PCNs to expedite agency coordination.

(5) For NWP 48 activities that require reporting, the DE will provide a copy of each report within 10 calendar days of receipt to the appropriate regional office of the NMFS.

e. DE's Decision: In reviewing the PCN for the proposed activity, the DE will determine whether the activity authorized by the NWP will result in more than minimal individual or cumulative adverse environmental effects or may be contrary to the public interest. If the proposed activity requires a PCN and will result in a loss of greater than 1/10 acre of wetlands, the prospective permittee should submit a mitigation proposal with the PCN. Applicants may also propose compensatory mitigation for projects with smaller impacts. The DE will consider any proposed compensatory mitigation the applicant has included in the proposal in determining whether the net adverse environmental effects to the aquatic environment of the proposed work are minimal. The compensatory mitigation proposal may be either conceptual or detailed. If the DE determines that the activity complies with the terms and conditions of the NWP and that the adverse effects on the aquatic environment are minimal, after considering mitigation, the DE will notify the permittee and include any conditions the DE deems necessary. The DE must approve any compensatory mitigation proposal before the permittee commences work. If the prospective permittee elects to submit a compensatory mitigation plan with the PCN, the DE will expeditiously review the proposed compensatory mitigation plan. The DE must review the plan within 45 calendar days of receiving a complete PCN and determine whether the proposed mitigation would ensure no more than minimal adverse effects on the aquatic environment. If the net adverse effects of the project on the aquatic environment (after consideration of the compensatory mitigation proposal) are determined by the DE to be minimal, the DE will provide a timely written response to the applicant. The response will state that the project can proceed under the terms and conditions of the NWP.

If the DE determines that the adverse effects of the proposed work are more than minimal, then the DE will notify the applicant either: (1) That the project does not qualify for authorization under the NWP and instruct the applicant on the procedures to seek authorization under an individual permit; (2) that the project is authorized under the NWP subject to the

applicant's submission of a mitigation plan that would reduce the adverse effects on the aquatic environment to the minimal level; or (3) that the project is authorized under the NWP with specific modifications or conditions. Where the DE determines that mitigation is required to ensure no more than minimal adverse effects occur to the aquatic environment, the activity will be authorized within the 45-day PCN period. The authorization will include the necessary conceptual or specific mitigation or a requirement that the applicant submit a mitigation plan that would reduce the adverse effects on the aquatic environment to the minimal level. When mitigation is required, no work in waters of the United States may occur until the DE has approved a specific mitigation plan.

28. Single and Complete Project. The activity must be a single and complete project. The same NWP cannot be used more than once for the same single and complete project.

Further Information

1. The DEs have authority to determine if an activity complies with the terms and conditions of a NWP.
2. The NWPs do not obviate the need to obtain other Federal, State, or local permits, approvals, or authorizations required by law.
3. The NWPs do not grant any property rights or exclusive privileges.
4. The NWPs do not authorize any injury to the property or rights of others.
5. The NWPs do not authorize interference with any existing or proposed Federal project.

**Section 401 Clean Water Act (CWA) Water Quality Certification (WQC)
For Nationwide Permits (NWP) Under Section 404 CWA In Oklahoma**
June 1, 2007

The Oklahoma Department of Environmental Quality (ODEQ) conditional WQC pursuant to Section 401 CWA dated May 11, 2007, was determined as follows:

The following five standard conditions are applicable to all issued NWPs

1. All spills of fuel or other pollutants in excess of 5 gallons shall be reported to the ODEQ, within 24 hours, to the pollution prevention hotline at 1-800-522-0206.
2. All fueling and servicing of vehicles and equipment shall be done above the Ordinary High Water Mark (OHWM).
3. Permittee shall provide access to the property for ODEQ inspection purposes.
4. Any material and fuels used in the project shall be stored and/or stockpiled above the OHWM and shall be removed from a likely flood zone prior to any predicted flood.
5. If a stormwater discharge permit for construction activities is required, one can be obtained from the ODEQ at (405) 702-8100.

NWPs 34 and 48 are denied in all waterways. NWP General Condition 19 does not allow discharges in Critical Resource Waters (CRWs) under NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, or 44. Tulsa District regional conditions require a PCN in all CRWs. See the back of this sheet for details.

Coordination of Pre-Construction Notifications (PCN): For activities under NWPs 19, 20, 23, 27, 33, or 37, located in CRWs; the PCN and other project information will be provided to the ODEQ for a 10-day review opportunity. If notified within the review period of ODEQs intent to comment, the Corps will wait an additional 5 days prior to verification of the NWP.

The Corps has determined that the ODEQ denial of WQC for NWPs 3, 13, 18, 41, 45, 46, 47, in CRWs; and 16, 49 and 50, in all waters, is **not** acceptable. Therefore, the Tulsa District will review requests for authorization of work under NWPs 3, 13, 18, 41, 45, 46, 47, in CRWs; and 16, 49 and 50, in all waters, and determine if issuance of a NWP is warranted. If so, a NWP will be issued provisionally. The permittee will be referred to ODEQ to obtain an individual WQC for the work. Work under the NWP could not begin until individual WQC is obtained from ODEQ.

Note 1: This WQC supersedes all previous WQCs for NWPs in the State of Oklahoma.

Note 2: Outstanding Resource Waters (ORWs), ORWs watersheds, and High Quality Waters as designated by Oklahoma have been designated as CRWs by the Corps and are thus subject to NWP General Condition 19. A complete list of CRWs is available on the Corps website:
<http://www.swt.usace.army.mil/permits/NPP.cfm>

Note 3: WQC is not required for the following NWPs issued under the sole authority of Section 10 of the Rivers and Harbors Act of 1899: 1, 2, 8, 9, 10, 11, 24, 28, and 35.

Tulsa District Nationwide Permit (NWP) Regional Conditions

For all discharges and activities proposed for authorization under any NWP into the waters of the United States listed below, including adjacent wetlands; applicants shall notify the Tulsa District Engineer in accordance with NWP General Condition (GC) 27. The Corps will coordinate a Pre-Construction Notification (PCN) with the resource agencies as specified in NWP GC 27(d) even if there is less than ½ acre impact on waters of the US.

Note. Under the specific terms of NWP 47 Pipeline Safety Program Designated Time Sensitive Inspections and Repairs, a PCN is not required for any activity that qualifies under the US Department of Transportation's, Pipeline and Hazardous Materials Safety Administration's Pipeline Safety Program.

(a) **Pitcher Plant Bogs:** Wetlands that are characterized by an organic surface soil layer and include vegetation such as pitcher plants (Sarracenia sp.), sundews (Drosera sp.), and sphagnum moss (Sphagnum sp.).

(b) **Bald Cypress-Tupelo Swamps:** Wetlands comprised predominantly of bald cypress trees (Taxodium distichum), and water tupelo trees (Nyssa aquatica), that are occasionally or regularly flooded by fresh water. Common associates include red maple (Acer rubrum), swamp privet (Forestiera acuminata), green ash (Fraxinus pennsylvanica) and water elm (Planera aquatica). Associated herbaceous species include lizard's tail (Saururus cernuus), water mermaid weed (Proserpinaca spp.), buttonbush (Cephalanthus occidentalis) and smartweed (Polygonum spp.). (Eyre, F. H. Forest Cover Types of the United States and Canada. 1980. Society of American Foresters, 5400 Grosvenor Lane, Bethesda, Maryland 20814-2198. Library of Congress Catalog Card No. 80-54185)

(c) **Designated Critical Resource Waters (CRW)** as defined in NWP GC 19 includes the following.

1. Outstanding Resource Waters (ORW) and their watersheds; and High Quality Waters (HQW) designated by the State of Oklahoma in Appendix A of the Water Quality Standards (OAC 785, Chapter 45) ORW include those waters in the supporting watershed, HQW do not. Both ORW and HQW include adjacent wetlands. The current list of CRW is available on the Corps website: <http://www.swt.usace.army.mil/permits/NPP.cfm>

2. Waters of the United States, including adjacent wetlands, designated as Critical Habitat for endangered species by the USFWS. Current information on endangered and threatened species and their habitat is available from the USFWS webpage: <http://www.fws.gov/endangered/>

The latest information on endangered species in Oklahoma can be obtained from the USFWS webpage: <http://www.fws.gov/southwest/es/oklahoma/spplist.htm>

The latest information on endangered species in Texas can be obtained from the USFWS webpage: <http://www.fws.gov/southwest/es/arlingontexas/documents.htm#TE>



January 30, 2012

Mr. David Manning
Chief, Regulatory Office
Department of the Army
Corps of Engineers, Tulsa District
1645 South 101st East Avenue
Tulsa, OK 74128-4609

Re: Corps Identification No. 2008-406: 90th Street Drainage Project, Bixby, Oklahoma

Dear Mr. Manning:

The City of Bixby, Oklahoma, has been experiencing flooding problems along 90th East Avenue due to insufficient roadway heights and culvert capacities along Fry Creek. During rain events exceeding 1 inch, Fry Creek consistently floods, leaving 90th East Avenue completely inundated and causing roadway overtopping at 89th East Avenue and 113th Street. Residences and sanitary sewer crossings in this area are affected by flood waters to varying degrees depending on the amount and rate of precipitation. During flooding events, area motorists who use 90th East Avenue to access main arterial streets are cut off. There are seven residences that become completely inaccessible during flood events; residents must wait for the waters to recede to leave or return to their properties. During flood events, emergency vehicles are unable to access these homes in a timely manner because of the road closures. The flood events also place a strain on sanitary sewer crossings in the area, leading to weakening of and/or damage to lines. The heavy discharge rate of water from these flooding events has also led to stream bank shearing and deterioration along Fry Creek.

The City of Bixby has requested funding under the Federal Emergency Management Agency (FEMA) Hazard Mitigation Grant Program (HMGP) to develop drainage system enhancements and flood control structures to address the recurring flooding in the project area (see Figures 1 and 2). Currently, the proposed project is authorized under Nationwide Permit (NWP) 14, which will expire on March 18, 2012. Two modifications to the proposed project have been made since the original coordination with your office in 2008 and 2009 (see attached correspondence): (1) creating a 0.11-acre energy dissipation basin by widening the channel overbank at the 113th Street culvert outflow, and (2) removing stream restoration previously proposed outside of the sewer line right-of-way. Neither of these modifications causes the proposed project to be ineligible for NWP 14. The City of Bixby plans to commence, or be under contract to commence, the proposed project by the date of modification or revocation of the NWP.

If you have any questions or need additional information, please contact me at (301) 820-3491 or brad.burford@urs.com.

Sincerely,

URS Group, Inc.

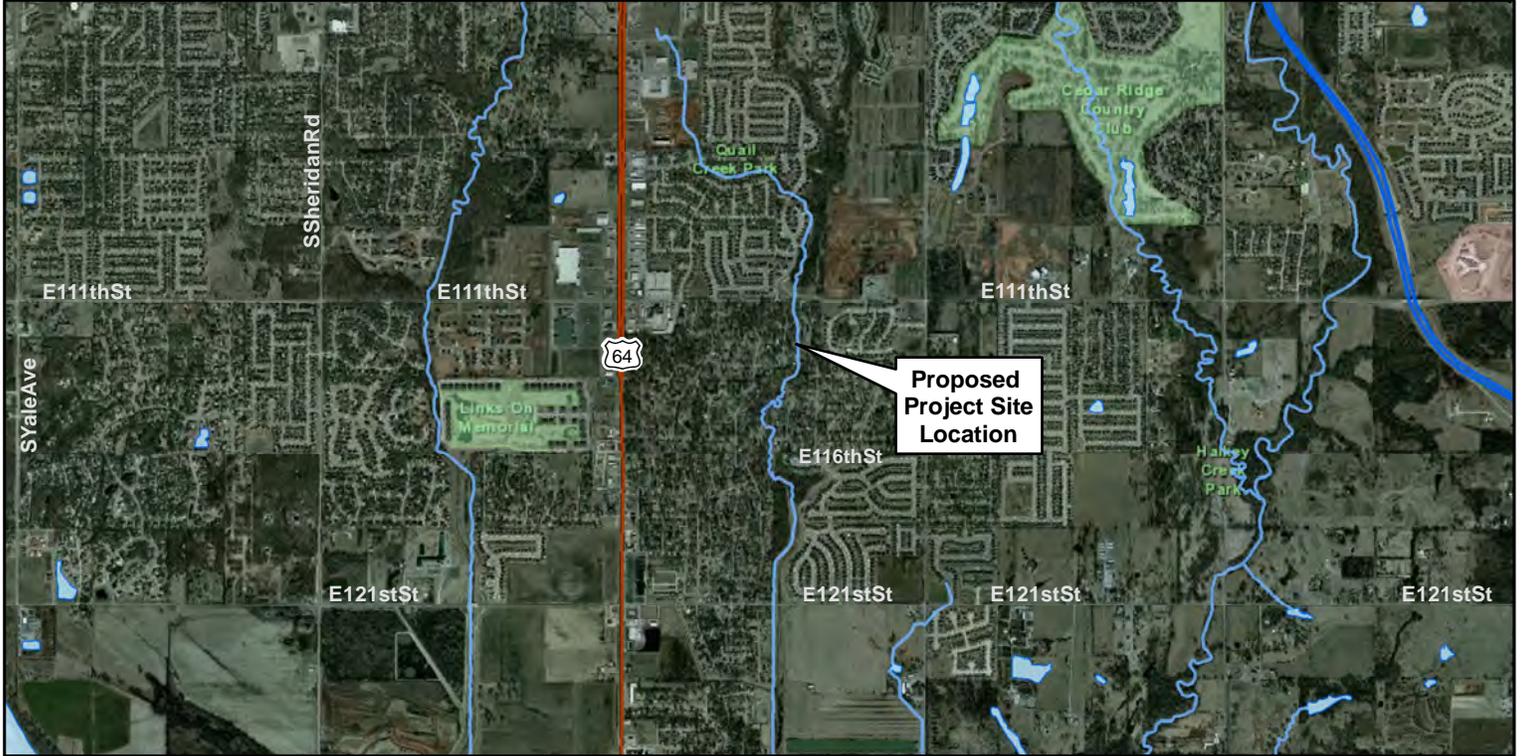
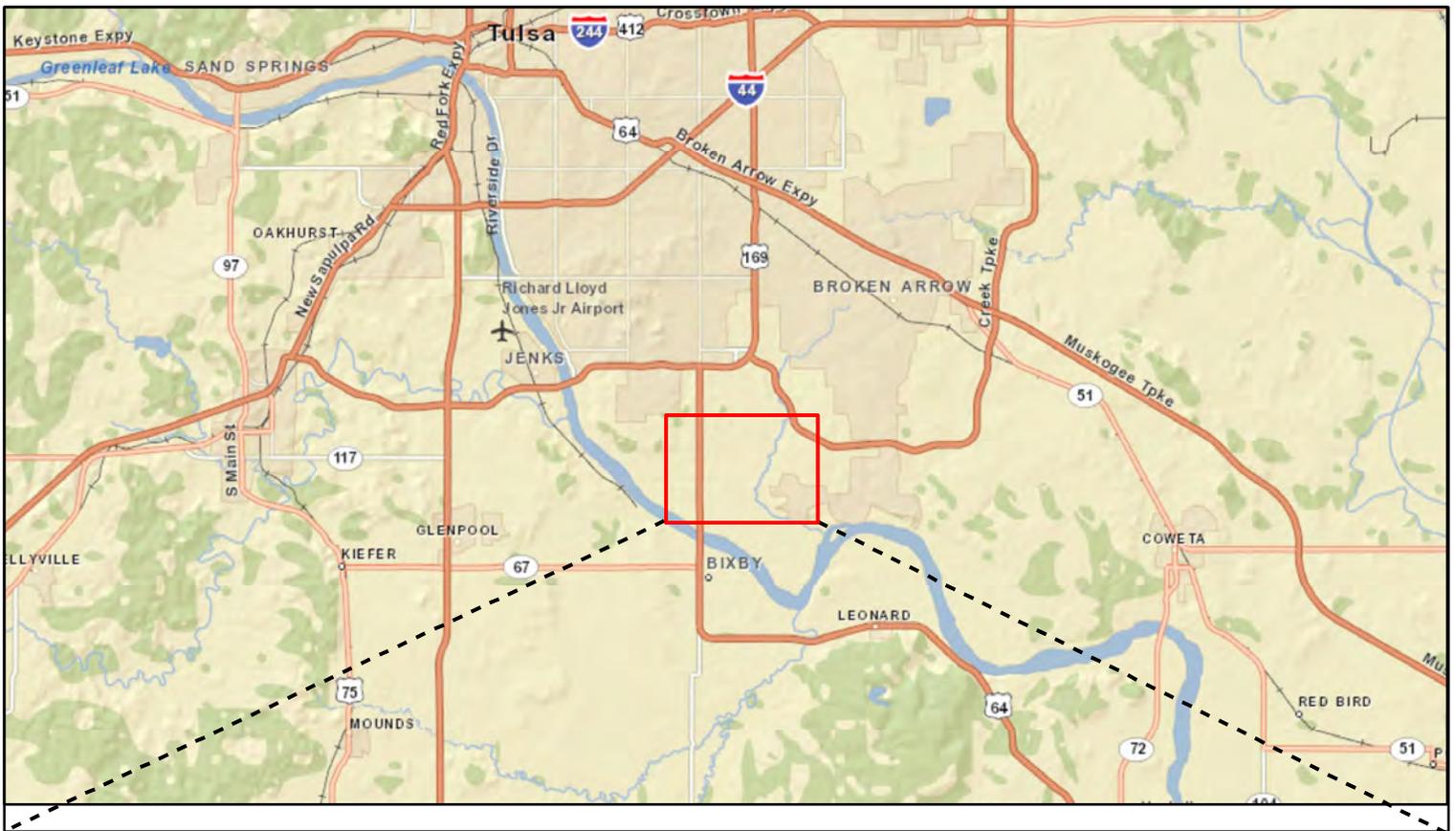
A handwritten signature in blue ink that reads "Bradley Burford". The signature is written in a cursive style with a long horizontal flourish at the end.

Brad Burford, AWB®, CWT
Environmental Scientist

BB:als

Attachments as noted

cc: Mike Verderosa, URS
Jeffrey Reidenauer, Ph.D., URS



Source: ESRI ArcGIS Online and data partners, including imagery from agencies supplied via the Content Sharing Program



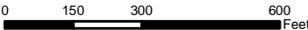
CLIENT		FEMA			TITLE		PROJECT VICINITY				
PROJ		90th Street Drainage Project			 12420 Milestone Center Drive Germantown, MD 20876		PROJ NO		15702509		
APPLICANT		City of Bixby, OK					SCALE		Not to Scale		
REVISION NO							DES BY		JK		
FILE		G:\Projects\Z_Short_Term_Projects\Bixby\MXD			CHK BY		BB		01/03/2012		
									01/03/2012		
									FIGURE		1



Legend

-  Proposed Project Area
-  Proposed Drop Structure/Sanitary Sewer Encasement

Source: Microsoft Corporation - Bing Maps and its data suppliers, 2009

CLIENT		FEMA		TITLE		PROJECT AREA		
PROJ		90th Street Drainage Project		 12420 Milestone Center Drive Germantown, MD 20876		PROJ NO		15702509
APPLICANT		City of Bixby, OK				FIGURE		2
REVISION NO		SCALE						
FILE		DES BY	JK	01/03/2012				
		CHK BY	BB	01/03/2012				

SHPO, OAS, and THPO Correspondence

CITY OF BIXBY

P.O. Box 70
116 W. Needles Ave.
BIXBY, OK 74008
(918) 366-4430
(918) 366-6373 (fax)

CITY MANAGER:
Micky Webb
ASSISTANT CITY MANAGER:
Mike Webster
CITY CLERK:
Cheryl Sasser
CITY TREASURER:
Rebecca K. Byers
PUBLIC WORKS DIRECTOR:
Beatriz Aamodt, P.E.
ACTING CITY ENGINEER:
Jarred Cottio, P.E.

CITY COUNCIL:
Ray Bowen, Mayor
Tom Daniels, Vice Mayor
Joe Williams
Steve Todoroff
Patty Ferree
CITY ATTORNEY:
Phil Frazier

date sent ?

Archeological Survey
University of Oklahoma
111 E Chesapeake, Bldg 134
Norman, OK 73019

The City of Bixby is making application for a HMGP grant from FEMA. The project is the enhancement of a drainage system along a present drainage ditch to retain storm water runoff to deliver flows in such a manner and at such a time to protect property in the area. The project will include the creation of a detention pond by the removal of two structures and the elevation of the adjacent streets. The project is located in Southwood Extended Amended, City of Bixby, Tulsa County, Section 36, Township 18 North, Range 13 East. Please address your comments concerning the project to City of Bixby, P O Box 70, Bixby, OK 74008. Should you have questions or need additional information please contact Jim Coffey at (918) 261-0423, fax (918) 299-0658, jkc Coffey@cox.net, or P O Box 70, Bixby, Ok 74008.

Sincerely,


Jim Coffey

JKC Enterprises LLC, Consultant



Oklahoma Archeological Survey

1000 North Lincoln Avenue
Tulsa, Oklahoma 74102-1000

July 10, 2008

Jim Coffey
City of Bixby
PO Box 70
116 W. Needles Ave.
Bixby, OK 74008

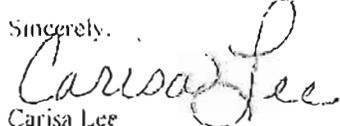
Re: City of Bixby, Detention pond, remove 2 structures, elevate adjacent streets. Legal Description: Section 36 T18N R13E, Tulsa County, Oklahoma.

Dear Mr. Coffey:

The Community Assistance Program staff of the Oklahoma Archeological Survey has reviewed the above referenced project in order to identify potential areas that may contain prehistoric or historic archaeological materials (historic properties). The location of your project has been crosschecked with the state site files containing approximately 18,000 archaeological sites that are currently recorded for the state of Oklahoma. No sites are listed as occurring within your project area, and based on the topographic and hydrologic setting, no archaeological materials are likely to be encountered. Thus an archaeological field inspection is not considered necessary. However, should construction activities expose buried archaeological materials such as chipped stone tools, pottery, bone, historic crockery, glass, metal items or building materials, this agency should be contacted immediately at (405) 325-7211. A member of our staff will be sent to evaluate the significance of these remains.

This environmental review and evaluation is performed in order to locate, record, and preserve Oklahoma's prehistoric and historic cultural heritage in cooperation with the State Historic Preservation Office, Oklahoma Historical Society. In addition to our review comments, under 36CFR Part 800.3 you are reminded of your responsibility to consult with the appropriate Native American tribe/groups to identify any concerns they may have pertaining to this undertaking and potential impacts to properties of traditional and/or ceremonial value. Thank you.

Sincerely,


Carisa Lee
Staff Archaeologist


Robert L. Brooks
State Archaeologist

ccy

Cc: SHPO

CITY OF BIXBY

P.O. Box 70
116 W. Needles Ave.
BIXBY, OK 74008
(918) 366-4430
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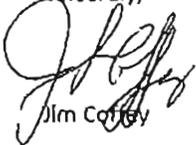
Oklahoma Historical Preservation Office

2704 Villa Prom

Oklahoma City, OK 73107

The City of Bixby is making application for a HMGP grant from FEMA. The project is the enhancement of a drainage system along a present drainage ditch to retain storm water runoff to deliver flows in such a manner and at such a time to protect property in the area. The project will include the creation of a detention pond by the removal of two structures and the elevation of the adjacent streets. The project is located in Southwood Extended Amended, City of Bixby, Tulsa County, Section 36, Township 18 North, Range 13 East. Please address your comments concerning the project to City of Bixby, P O Box 70, Bixby, OK 74008. Should you have questions or need additional information please contact Jim Coffey at (918) 261-0423, fax (918) 299-0658, jcoffey@cox.net, or P O Box 70, Bixby, Ok 74008.

Sincerely,



Jim Coffey

JKC Enterprises LLC, Consultant



FEMA

January 17, 2012

Dr. Bob L. Blackburn
Oklahoma Historical Society
Oklahoma History Center
State Historic Preservation Office
800 Nazih Zuhdi Drive
Oklahoma City, Oklahoma 73105-7917

Re: Request for Concurrence – Bixby, Oklahoma: 90th Street Drainage Project

Dear Dr. Blackburn:

The City of Bixby, Oklahoma has applied for federal funding through the Hazard Mitigation Grant Program (HMGP) from the Federal Emergency Management Agency (FEMA) for the development of drainage system enhancements that include the creation of a detention pond and the elevation of the adjacent streets. The creation of the detention pond requires the removal of two residential buildings. The project is located in the City of Bixby, Tulsa County, Section 36, Township 18 North, Range 13 East (Figures 1a, 1b and 2). The purpose of the project is to reduce repetitive flooding problems along S. 90th East Avenue from E. 111th Street through E. 116th Street. The proposed project will elevate the affected roadway 1 foot above the base flood elevation, creating an adjacent approximately 1-acre drainage detention pond, facilitating a higher runoff and making adjustments to the water channel in the project area.

The City would construct a detention facility, upgrade culvert conveyance to accommodate 100-year flows, elevate existing roadways above the 100-year flood level, construct/update 7 sanitary sewer encasements/drop structures, and stabilize stream banks. Specific project components include:

- Constructing an approximately 1-acre water detention facility located west of and adjacent to 90th East Avenue;
- Elevating 90th East Avenue and portions of 89th East Avenue and 113th Street above the 100-year flood event;
- Replacing an existing 36-inch reinforced concrete pipe (RCP) culvert with a triple 8-foot x 6-foot reinforced concrete box (RCB) at basin outlet on the 113th Street Bridge; Replacing an existing 42-inch RCP culvert with a triple 8-foot x 6-foot RCB at the Basin inlet on the 112th Street Bridge;
- Replacing/upgrading sanitary sewer lines and creating 7 sanitary sewer encasements/drop structures;
- Creating an energy dissipation and stilling Basin at the 113th Street culvert outflow;
- Stabilizing stream banks on Fry Creek downstream from 113th Street; and

- Demolishing two residences and removing any associated landscaping or paving.

The project area is comprised of suburban dwellings with associated manicured plots and lawns, interspersed with small areas of trees. A meandering network of paved roadways allows access to the many sub-divisions throughout the area. Fry Creek flows through the center of the project area. The proposed approximately 1-acre detention facility will require the demolition of an existing residence that will be acquired by the City of Bixby. All material excavated for the construction of the detention facility will be used to raise the surrounding roadways above the 100-year flood level. A second residence to be acquired by the City of Bixby will be demolished for construction of the proposed energy dissipation and stilling Basin downstream of the upgraded 113th Street culvert. Existing RCPs will be removed at 89th East Avenue (42-inch RCP) and E. 113th Street (36-inch RCP). Seven sewer line encasements/drop structure locations and areas of stream bank stabilization locations are proposed along with the removal and replacement of 5 existing driveway aprons and segments of driveways along the east side of S. 90th East Avenue. All project component locations are depicted in attached Figures 3a and 3b.

The removal of the two residences will be completed at the City of Bixby's expense and is not included in the grant application's project scope. The property acquisition for the residences has been contractually obligated to occur upon notice of grant award. Contingency contracts for sale have been executed between the City and the residential property owners. Local funds have been budgeted to complete this activity.

Specific project activities related to the demolition of the two residences include removal of any associated landscaping or paving, removal of debris, excavation of an approximately 1-acre detention facility and drainage ditches, and addition of fill material. Additional project activities involving built infrastructure include culvert replacements at 89th East Avenue and 113th Street to increase culvert conveyance to the 100-year flow; a proposed energy dissipation and stilling Basin downstream of the upstream of the upgraded E. 113th Street culvert; 7 sanitary sewer encasements or drop structures and the areas of stream bank stabilization locations; removal and replacement of 5 existing driveway aprons and lower driveway segments along the east side of S. 90th East Avenue; and the raising of sections of S. 90th East Avenue, S. 89th East Avenue, and E. 111th Street 1 foot and associated roadway reconstructed (Figures 3a, 3b).

Previous Section 106 Coordination

The City of Bixby notified the Oklahoma Historic Preservation Office (SHPO) and Oklahoma Archaeological Survey (OAS) in 2008 via letter of its intention to apply for an HMGP grant from FEMA to fund this project. The project is defined in these letters as including the "creation of a detention pond by the removal of two structures and the elevation of adjacent streets." There is no mention of the driveway replacements, the culvert replacements, or the sanitary sewer replacements.

The Oklahoma SHPO has not responded to the City of Bixby notification letters. The OAS replied to the City of Bixby in a letter dated July 10, 2008. OAS stated that, based on the hydrologic and topographic information provided, the state archaeological site files indicate no

sites are located within the project area. OAS further indicated that no archaeological materials are likely to be encountered and an archaeological field inspection is not considered necessary. The letter concluded that if archaeological materials are exposed during construction, the OAS is to be contacted immediately in order to evaluate their significance. A copy of the OAS letter was transmitted to the SHPO.

Area of Potential Effects (APE)

A URS Architectural Historian qualified under the *Secretary of the Interior's Professional Qualification Standards* (36 CFR Part 61) in the disciplines of history and architectural history, as well as a URS Archaeologist qualified under the *Secretary of the Interior's Professional Qualification Standards* (36 CFR Part 61) in the discipline of archaeology, conducted a desktop assessment of the project's potential to affect historic properties within the APE using Google Earth Professional, 2011. The above ground APE includes the project area encompassing the locations of all the proposed work to account for direct effects, and an approximate 200-foot buffer around the project area to assess indirect effects (Figure 4). The project area is a built-out 1970s-era medium-density suburban development characterized by many two-story residences, mature trees, and curvilinear roads; all of which combine to create view sheds of limited distance. A 200-foot buffer around this area would accommodate any views of the specific project locations, including residences to be demolished, which account for the proposed project's greatest impact to the above ground visual character of the area.

The archaeological APE is defined as the area of anticipated ground disturbance, including ingress/egress routes for heavy equipment and areas where utilities will be relocated and adjusted. Utilities are expected to be located in the right-of-way (ROW) within the defined archaeological APE. All heavy equipment will use existing roadways (Figure 5).

Bixby, Oklahoma 90th East Avenue & S. 111th Street Drainage Street Improvements & Property Acquisitions

Site Description. The project site consists of roughly 1.5 acres along a channelized natural drainage bounded on the north by S. 111th Street and on the south by E. 113th Street. The western boundary of the project area extends approximately 100 feet beyond the drainage channel and the eastern boundary extends approximately 50 feet beyond the eastern edge of S. 90th East Avenue. As stated previously, the project area is characterized by 1970s-era residential development. The building stock consists of ranch, split-level and two-story detached residences on separate parcels. The houses that will be demolished include a ranch style residence and a split-level style residence (Figure 6). Parcels in the APE include driveways, detached garages, and occasional outbuildings and in-ground pools. Streets are curvilinear, not curbed and no sidewalks are present. Above ground infrastructure improvements, such as the stream culverts and sewer line manhole collars or drop structures were likely part of the 1970's development (Figure 6).

Above Ground Resources. The Google Earth Professional analysis of the project site revealed that no above ground historic properties are apparent within the APE and the project site is not located within or near a National Register of Historic Places (NRHP)-listed property. The NRHP

Focus database includes no listings for Bixby, Oklahoma. The Oklahoma Historical Society's (SHPO) listing of architectural surveys in the state does not include an architectural survey of Bixby and the SHPO does not list Bixby as one of Oklahoma's Certified Local Governments (CLG). There is no indication of a local historic district or historic landmark program on the City's website and there are no listings for Historic American Buildings Survey (HABS) or Historic American Engineering Record (HAER) properties in Bixby. FEMA has determined that no aboveground historic properties are present within the APE.

Archaeological Resources. According to the previously referenced correspondence with the OAS, the project location was crosschecked with the Oklahoma state site files and no sites were listed for the project area. In addition, the OAS stated that "based on the topographic and hydrologic setting no archaeological materials are likely to be encountered." Considering the apparent high level of previous disturbance in the area, there appears to be low potential for the presence of archaeological resources. An archaeological field inspection is not considered necessary for this project. FEMA has determined there is a low potential for the presence of archaeological historic properties in the project's archaeological APE.

Summary of Effects to Historic Properties

The undertaking consists of the removal of two 1970s-era residences, development of a stormwater detention pond, construction of a proposed energy dissipation and stilling basin, raising and elevating roadway (increasing elevation approximately 1 foot) removal and replacement of two 1970s-era culverts, removal and replacement of 7 1970s-era sanitary sewer manhole collars or drop structures, and removal and replacement of 4 driveway lengths, as measured from the street and not-to-exceed more than 50 linear feet. FEMA has determined that no above ground historic properties are located within the above ground APE and there is a low potential for the presence of archaeological historic properties in the archaeological APE. Accordingly, FEMA has determined that the proposed undertaking will have no effect on historic properties. If archaeological resources become exposed during the project, FEMA will immediately contact the OAS and the SHPO.

FEMA requests SHPO concurrence with its findings and determinations as presented above. If you have any questions or need additional information, please contact Lawrence Frank of URS at (678) 808-8960 or Dorothy Weir, FEMA Environmental Specialist at (940)-383-7250.

Sincerely,



Kevin Jaynes, CHMM
Regional Environmental Officer
FEMA Region 6

Dr. Blackburn
January 17, 2012
Page 5

Enclosures: Figure 1a, 1b – Project Area Satellite Photo and USGS Map
Figure 2 – Project Site Plans
Figure 3a, 3b – Preliminary Construction Plans
Figure 4 – Above Ground APE
Figure 5 – Archaeological APE
Figure 6 – Photograph Log



FEMA

January 17, 2012

Dr. Robert L. Brooks
Oklahoma Archeological Survey
111 E. Chesapeake
Norman, OK 73019-5111

Re: Request for Concurrence – Bixby, Oklahoma: 90th Street Drainage Project

Dear Dr. Brooks:

The City of Bixby, Oklahoma has applied for federal funding through the Hazard Mitigation Grant Program (HMGP) from the Federal Emergency Management Agency (FEMA) for the development of drainage system enhancements that include the creation of a detention pond and the elevation of the adjacent streets. The creation of the detention pond requires the removal of two residential buildings. The project is located in the City of Bixby, Tulsa County, Section 36, Township 18 North, Range 13 East (Figures 1a, 1b and 2). The purpose of the project is to reduce repetitive flooding problems along S. 90th East Avenue from E. 111th Street through E. 116th Street. The proposed project will elevate the affected roadway 1 foot above the base flood elevation, creating an adjacent approximately 1-acre drainage detention pond, facilitating a higher runoff and making adjustments to the water channel in the project area.

The City would construct a detention facility, upgrade culvert conveyance to accommodate 100-year flows, elevate existing roadways above the 100-year flood level, construct/update 7 sanitary sewer encasements/drop structures, and stabilize stream banks. Specific project components include:

- Constructing an approximately 1-acre water detention facility located west of and adjacent to 90th East Avenue;
- Elevating 90th East Avenue and portions of 89th East Avenue and 113th Street above the 100-year flood event;
- Replacing an existing 36-inch reinforced concrete pipe (RCP) culvert with a triple 8-foot x 6-foot reinforced concrete box (RCB) at basin outlet on the 113th Street Bridge; Replacing an existing 42-inch RCP culvert with a triple 8-foot x 6-foot RCB at the Basin inlet on the 112th Street Bridge;
- Replacing/upgrading sanitary sewer lines and creating 7 sanitary sewer encasements/drop structures;
- Creating an energy dissipation and stilling Basin at the 113th Street culvert outflow;
- Stabilizing stream banks on Fry Creek downstream from 113th Street; and
- Demolishing two residences and removing any associated landscaping or paving.

The project area is comprised of suburban dwellings with associated manicured plots and lawns, interspersed with small areas of trees. A meandering network of paved roadways allows access to the many sub-divisions throughout the area. Fry Creek flows through the center of the project area. The proposed approximately 1-acre detention facility will require the demolition of an existing residence that will be acquired by the City of Bixby. All material excavated for the construction of the detention facility will be used to raise the surrounding roadways above the 100-year flood level. A second residence to be acquired by the City of Bixby will be demolished for construction of the proposed energy dissipation and stilling Basin downstream of the upgraded 113th Street culvert. Existing RCPs will be removed at 89th East Avenue (42-inch RCP) and E. 113th Street (36-inch RCP). Seven sewer line encasements/drop structure locations and areas of stream bank stabilization locations are proposed along with the removal and replacement of 5 existing driveway aprons and segments of driveways along the east side of S. 90th East Avenue. All project component locations are depicted in attached Figures 3a and 3b.

The removal of the two residences will be completed at the City of Bixby's expense and is not included in the grant application's project scope. The property acquisition for the residences has been contractually obligated to occur upon notice of grant award. Contingency contracts for sale have been executed between the City and the residential property owners. Local funds have been budgeted to complete this activity.

Specific project activities related to the demolition of the two residences include removal of any associated landscaping or paving, removal of debris, excavation of an approximately 1-acre detention facility and drainage ditches, and addition of fill material. Additional project activities involving built infrastructure include culvert replacements at 89th East Avenue and 113th Street to increase culvert conveyance to the 100-year flow; a proposed energy dissipation and stilling Basin downstream of the upstream of the upgraded E. 113th Street culvert; 7 sanitary sewer encasements or drop structures and the areas of stream bank stabilization locations; removal and replacement of 5 existing driveway aprons and lower driveway segments along the east side of S. 90th East Avenue; and the raising of sections of S. 90th East Avenue, S. 89th East Avenue, and E. 111th Street 1 foot and associated roadway reconstructed (Figures 3a, 3b).

Previous Section 106 Coordination

The City of Bixby notified the Oklahoma Historic Preservation Office (SHPO) and Oklahoma Archaeological Survey (OAS) in 2008 via letter of its intention to apply for an HMGP grant from FEMA to fund this project. The project is defined in these letters as including the "creation of a detention pond by the removal of two structures and the elevation of adjacent streets." There is no mention of the driveway replacements, the culvert replacements, or the sanitary sewer replacements.

The Oklahoma SHPO has not responded to the City of Bixby notification letters. The OAS replied to the City of Bixby in a letter dated July 10, 2008. OAS stated that, based on the hydrologic and topographic information provided, the state archaeological site files indicate no sites are located within the project area. OAS further indicated that no archaeological materials are likely to be encountered and an archaeological field inspection is not considered necessary.

The letter concluded that if archaeological materials are exposed during construction, the OAS is to be contacted immediately in order to evaluate their significance. A copy of the OAS letter was transmitted to the SHPO.

Area of Potential Effects (APE)

A URS Architectural Historian qualified under the *Secretary of the Interior's Professional Qualification Standards* (36 CFR Part 61) in the disciplines of history and architectural history, as well as a URS Archaeologist qualified under the *Secretary of the Interior's Professional Qualification Standards* (36 CFR Part 61) in the discipline of archaeology, conducted a desktop assessment of the project's potential to affect historic properties within the APE using Google Earth Professional, 2011. The above ground APE includes the project area encompassing the locations of all the proposed work to account for direct effects, and an approximate 200-foot buffer around the project area to assess indirect effects (Figure 4). The project area is a built-out 1970s-era medium-density suburban development characterized by many two-story residences, mature trees, and curvilinear roads; all of which combine to create view sheds of limited distance. A 200-foot buffer around this area would accommodate any views of the specific project locations, including residences to be demolished, which account for the proposed project's greatest impact to the above ground visual character of the area.

The archaeological APE is defined as the area of anticipated ground disturbance, including ingress/egress routes for heavy equipment and areas where utilities will be relocated and adjusted. Utilities are expected to be located in the right-of-way (ROW) within the defined archaeological APE. All heavy equipment will use existing roadways (Figure 5).

Bixby, Oklahoma 90th East Avenue & S. 111th Street Drainage Street Improvements & Property Acquisitions

Site Description. The project site consists of roughly 1.5 acres along a channelized natural drainage bounded on the north by S. 111th Street and on the south by E. 113th Street. The western boundary of the project area extends approximately 100 feet beyond the drainage channel and the eastern boundary extends approximately 50 feet beyond the eastern edge of S. 90th East Avenue. As stated previously, the project area is characterized by 1970s-era residential development. The building stock consists of ranch, split-level and two-story detached residences on separate parcels. The houses that will be demolished include a ranch style residence and a split-level style residence (Figure 6). Parcels in the APE include driveways, detached garages, and occasional outbuildings and in-ground pools. Streets are curvilinear, not curbed and no sidewalks are present. Above ground infrastructure improvements, such as the stream culverts and sewer line manhole collars or drop structures were likely part of the 1970's development (Figure 6).

Above Ground Resources. The Google Earth Professional analysis of the project site revealed that no above ground historic properties are apparent within the APE and the project site is not located within or near a National Register of Historic Places (NRHP)-listed property. The NRHP Focus database includes no listings for Bixby, Oklahoma. The Oklahoma Historical Society's (SHPO) listing of architectural surveys in the state does not include an architectural survey of

Bixby and the SHPO does not list Bixby as one of Oklahoma's Certified Local Governments (CLG). There is no indication of a local historic district or historic landmark program on the City's website and there are no listings for Historic American Buildings Survey (HABS) or Historic American Engineering Record (HAER) properties in Bixby. FEMA has determined that no aboveground historic properties are present within the APE.

Archaeological Resources. According to the previously referenced correspondence with the OAS, the project location was crosschecked with the Oklahoma state site files and no sites were listed for the project area. In addition, the OAS stated that "based on the topographic and hydrologic setting no archaeological materials are likely to be encountered." Considering the apparent high level of previous disturbance in the area, there appears to be low potential for the presence of archaeological resources. An archaeological field inspection is not considered necessary for this project. FEMA has determined there is a low potential for the presence of archaeological historic properties in the project's archaeological APE.

Summary of Effects to Historic Properties

The undertaking consists of the removal of two 1970s-era residences, development of a stormwater detention pond, construction of a proposed energy dissipation and stilling basin, raising and elevating roadway (increasing elevation approximately 1 foot) removal and replacement of two 1970s-era culverts, removal and replacement of 7 1970s-era sanitary sewer manhole collars or drop structures, and removal and replacement of 4 driveway lengths, as measured from the street and not-to-exceed more than 50 linear feet. FEMA has determined that no above ground historic properties are located within the above ground APE and there is a low potential for the presence of archaeological historic properties in the archaeological APE. Accordingly, FEMA has determined that the proposed undertaking will have no effect on historic properties. If archaeological resources become exposed during the project, FEMA will immediately contact the OAS and the SHPO.

FEMA requests OAS concurrence with its findings and determinations as presented above. If you have any questions or need additional information, please contact Lawrence Frank of URS at (678) 808-8960 or Dorothy Weir, FEMA Environmental Specialist at (940)-383-7250.

Sincerely,


Kevin Jaynes, CHMM
Regional Environmental Officer
FEMA Region 6

Dr. Brooks
January 17, 2012
Page 5

Enclosures: Figure 1a, 1b – Project Area Satellite Photo and USGS Map
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FEMA

January 17, 2012

Chief A. D. Ellis
Principal Chief
Muscogee (Creek) Nation
P.O. Box 580
Okmulgee, OK 74447

Re: Request for THPO Concurrence – Bixby, Oklahoma: 90th Street Drainage Project

Dear Chief A.D. Ellis:

The City of Bixby, Oklahoma has applied for federal funding through the Hazard Mitigation Grant Program (HMGP) from the Federal Emergency Management Agency (FEMA) for the development of drainage system enhancements that include the creation of a detention pond and the elevation of the adjacent streets. The creation of the detention pond requires the removal of two residential buildings. The project is located in the City of Bixby, Tulsa County, Section 36, Township 18 North, Range 13 East (Figures 1a, 1b and 2). The purpose of the project is to reduce repetitive flooding problems along S. 90th East Avenue from E. 111th Street through E. 116th Street. The proposed project will elevate the affected roadway 1 foot above the base flood elevation, creating an adjacent approximately 1-acre drainage detention pond, facilitating a higher runoff and making adjustments to the water channel in the project area.

The City of Bixby has requested FEMA funding under the hazard mitigation grant program (HMGP) to develop drainage system enhancements and flood control structures to address the recurring flooding in the project area. The City would construct a detention facility, upgrade culvert conveyance to accommodate 100-year flows, elevate existing roadways above the 100-year flood level, construct/update seven sanitary sewer encasements/drop structures, and stabilize stream banks. Specific project components include:

- Constructing an approximately 1-acre water detention facility located west of and adjacent to 90th East Avenue;
- Elevating 90th East Avenue and portions of 89th East Avenue and 113th Street above the 100-year flood event;
- Replacing an existing 36-inch reinforced concrete pipe (RCP) culvert with a triple 8-foot x 6-foot reinforced concrete box (RCB) at Basin outlet on the 113th Street Bridge;
- Replacing an existing 42-inch RCP culvert with a triple 8-foot x 6-foot RCB culvert at the Basin inlet on 112th Street Bridge;
- Replacing/upgrading sanitary sewer lines and creating seven sanitary sewer encasements/drop structures;

- The creation of an energy dissipation and stilling Basin at the 113th Street culvert outflow;
- Stabilizing stream banks on Fry Creek downstream from 113th Street; and
- Demolishing two residences and removing any associated landscaping or paving.

The project area is comprised of suburban dwellings with associated manicured plots and lawns, interspersed with small areas of trees. A meandering network of paved roadways allows access to the many sub-developments throughout the area. Fry Creek flows through the center of the project area. The proposed approximately 1-acre detention facility will require the demolition of an existing residence that will be acquired by the City of Bixby. All material excavated for the construction of the detention facility will be used to raise the surrounding roadways above the 100-year flood level. A second residence to be acquired by the City of Bixby will be cleared for construction of the proposed energy dissipation and stilling Basin downstream of the upgraded 113th Street culvert. Existing RCPs will be removed at 89th East Avenue (42-inch RCP) and East 113th Street (36-inch RCP). Seven sewer line encasements/drop structure locations and areas of stream bank stabilization locations are proposed along with the removal and replacement of 5 existing driveway aprons and segments of driveways along the east side of South 90th East Avenue. All project component locations are depicted in attached Figures 3a and 3b.

The removal of the two residences will be completed at the City of Bixby's expense and is not included in the grant application's project scope. The property acquisition for the residences has been contractually obligated to occur upon notice of grant award. Contingency contracts for sale have been executed between the City and the residential property owners. Local funds have been budgeted to complete this activity.

Specific project activities related to the demolition of the two residences include removal of any associated landscaping or paving, removal of debris, excavation of a detention pond and drainage ditches, and addition of fill material. Additional project activities involving built infrastructure include culvert replacements at 89th East Avenue and 113th Street to increase culvert conveyance to the 100-year flow; seven sanitary sewer encasements or drop structures and the areas of stream bank stabilization locations; removal and replacement of 5 existing driveway aprons and lower driveway segments along the east side of S. 90th East Avenue; and the raising of sections of S. 90th East Avenue, South 89th East Avenue, and East 111th Street 1 foot and the associated roadway reconstruction. (Figures 3a, 3b).

Previous Section 106 Coordination

The City of Bixby notified the Oklahoma Historic Preservation Office (SHPO) and Oklahoma Archaeological Survey (OAS) in 2008 via letter of its intention to apply for an HMGP grant from FEMA to fund this project. These letters are not dated. The project is defined in these letters as including the "creation of a detention pond by the removal of two structures and the elevation of adjacent streets." There is no mention of the driveway replacements, the culvert replacements, or the sanitary sewer replacements. The Oklahoma SHPO has not responded to the City of Bixby notification letters.

The OAS replied to the City of Bixby in a letter dated July 10, 2008. OAS stated that, based on the hydrologic and topographic information provided, the state archaeological site files indicate no sites are located within the project area. OAS further indicated that no archaeological materials are likely to be encountered and an archaeological field inspection is not considered necessary. The letter concluded that if archaeological materials are exposed during construction, OAS is to be contacted immediately in order to evaluate their significance. The OAS letter was copied to the SHPO.

Area of Potential Effects (APE)

A URS Architectural Historian qualified under the *Secretary of the Interior's Professional Qualification Standards* (36 CFR Part 61) in the disciplines of history and historic architecture, and a URS Archaeologist qualified under the *Secretary of the Interior's Professional Qualification Standards* (36 CFR Part 61) in the discipline of archaeology, conducted a desktop assessment of the project's potential to affect historic properties within the APE using Google Earth Professional, 2011. The above ground APE includes the project area encompassing the locations of all the proposed work to account for direct effects, and an approximate 200-foot buffer around the project area to assess indirect effects (Figure 4). The project area is a built-out 1970s era medium density suburban development characterized by many two-story houses, mature trees, and curvilinear roads; all of which combine to create view sheds of limited distance. A 200-foot buffer around this area would accommodate any views of the specific project locations, including houses to be demolished, which account for the proposed project's greatest impact to the above ground visual character of the area.

The archaeological APE is defined as the area of anticipated ground disturbance, including ingress/ egress routes for heavy equipment and areas where utilities will be relocated and adjusted. Utilities are expected to be located in the right-of-way (ROW) within the defined archaeological APE. All heavy equipment will use existing roadways (Figure 5).

Bixby, Oklahoma 90th East. Avenue & S. 111th Street Drainage Street Improvements & Property Acquisitions

Site Description. The project site consists of roughly 1.5 acres along a channelized natural drainage bounded on the north by S. 111th Street and on the south by E. 113th Street. The western boundary of the project area extends approximately 100 feet beyond the drainage channel and the eastern boundary extends approximately 50 feet beyond the eastern edge of S. 90th East Avenue. As stated previously, the project area is characterized by 1970s-era residential development. The building stock consists of ranch, split-level and two-story detached houses on separate parcels. The houses that will be demolished are a ranch house and a split-level house (Figure 6). Parcels in the APE include driveways, detached garages, and occasional outbuildings and in-ground pools. Streets are curvilinear, not curbed and no sidewalks are present. Above ground infrastructure improvements, such as the stream culverts and sewer line manhole collars or drop structures were likely part of the 1970's development (Figure 6).

Above-ground Resources. The Google Earth Professional analysis of the project site revealed that no above-ground historic properties are apparent within the APE and the project site is not located within or near a National Register of Historic Places (NRHP)-listed property. The NRHP Focus database has no listings for Bixby, Oklahoma. The Oklahoma Historical Society's (SHPO) listing of architectural surveys in the state does not include an architectural survey of Bixby and the SHPO does not list Bixby as one of Oklahoma's Certified Local Governments (CLG). There is no indication of a local historic district or historic landmark program on the City's website and there are no listings for Historic American Building Survey (HABS) or Historic American Engineering Record (HAER) properties in Bixby. FEMA has determined that no above-ground historic properties are present within the APE.

Archaeological Resources. According to the previously referenced correspondence with the OAS, the project location was crosschecked with the Oklahoma state site files and no sites were listed for the project area. In addition, the OAS stated that "based on the topographic and hydrologic setting no archaeological materials are likely to be encountered." Considering the apparent high level of previous disturbance in the area, there appears to be low potential for archaeological resources. An archaeological field inspection is not considered necessary for this project. FEMA has determined there is a low potential for the presence of archaeological properties in the project's archaeological APE.

Summary of Effects to Historic Properties

The undertaking consists of the removal of two 1970s-era residences, development of a stormwater detention pond, raising and elevating roadway (increasing elevation approximately one foot) removal and replacement of two 1970s-era culverts, removal and replacement of 7 1970s-era sanitary sewer manhole collars or drop structures, and removal and replacement of 4 driveway lengths, as measured from the street and not-to-exceed more than 50 linear feet. FEMA has determined that no above-ground historic properties are located within the above ground APE and there is a low potential for the presence of archaeological resources in the archaeological APE. Accordingly, FEMA has determined that the proposed undertaking will have no effect on historic properties. If archaeological resources become exposed during the project, FEMA will immediately contact the Muscogee (Creek) Nation Tribal Historic Preservation Officer (THPO), OAS and the SHPO.

FEMA requests THPO concurrence with its findings and determinations as presented above. If you have any questions or need additional information, please contact Lawrence Frank of URS at (678) 808-8960 or Dorothy Weir, FEMA Environmental Specialist, at (940) 383-7250.

Sincerely,



Kevin Jaynes, CHMM
Regional Environmental Officer
FEMA Region 6

Chief A.D. Ellis
January 17, 2012
Page 5

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cc: Mr. Ted Isham, Tribal Historic Preservation Officer
Cultural Preservation Office
Muscogee (Creek) Nation
P.O. Box 580
Okmulgee, OK 74447



FEMA

January 17, 2012

Chief John Red Eagle
Principal Chief
Osage Nation
627 Grandview
Pawhuska, Oklahoma 74056

Re: Request for THPO Concurrence – Bixby, Oklahoma: 90th Street Drainage Project

Dear Chief John Red Eagle:

The City of Bixby, Oklahoma has applied for federal funding through the Hazard Mitigation Grant Program (HMGP) from the Federal Emergency Management Agency (FEMA) for the development of drainage system enhancements that include the creation of a detention pond and the elevation of the adjacent streets. The creation of the detention pond requires the removal of two residential buildings. The project is located in the City of Bixby, Tulsa County, Section 36, Township 18 North, Range 13 East (Figures 1a, 1b and 2). The purpose of the project is to reduce repetitive flooding problems along S. 90th East Avenue from E. 111th Street through E. 116th Street. The proposed project will elevate the affected roadway 1 foot above the base flood elevation, creating an adjacent approximately 1-acre drainage detention pond, facilitating a higher runoff and making adjustments to the water channel in the project area.

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- Replacing an existing 42-inch RCP culvert with a triple 8-foot x 6-foot RCB culvert at the Basin inlet on 112th Street Bridge;
- Replacing/upgrading sanitary sewer lines and creating seven sanitary sewer encasements/drop structures;

- The creation of an energy dissipation and stilling Basin at the 113th Street culvert outflow;
- Stabilizing stream banks on Fry Creek downstream from 113th Street; and
- Demolishing two residences and removing any associated landscaping or paving.

The project area is comprised of suburban dwellings with associated manicured plots and lawns, interspersed with small areas of trees. A meandering network of paved roadways allows access to the many sub-developments throughout the area. Fry Creek flows through the center of the project area. The proposed approximately 1-acre detention facility will require the demolition of an existing residence that will be acquired by the City of Bixby. All material excavated for the construction of the detention facility will be used to raise the surrounding roadways above the 100-year flood level. A second residence to be acquired by the City of Bixby will be cleared for construction of the proposed energy dissipation and stilling Basin downstream of the upgraded 113th Street culvert. Existing RCPs will be removed at 89th East Avenue (42-inch RCP) and East 113th Street (36-inch RCP). Seven sewer line encasements/drop structure locations and areas of stream bank stabilization locations are proposed along with the removal and replacement of 5 existing driveway aprons and segments of driveways along the east side of South 90th East Avenue. All project component locations are depicted in attached Figures 3a and 3b.

The removal of the two residences will be completed at the City of Bixby's expense and is not included in the grant application's project scope. The property acquisition for the residences has been contractually obligated to occur upon notice of grant award. Contingency contracts for sale have been executed between the City and the residential property owners. Local funds have been budgeted to complete this activity.

Specific project activities related to the demolition of the two residences include removal of any associated landscaping or paving, removal of debris, excavation of a detention pond and drainage ditches, and addition of fill material. Additional project activities involving built infrastructure include culvert replacements at 89th East Avenue and 113th Street to increase culvert conveyance to the 100-year flow; seven sanitary sewer encasements or drop structures and the areas of stream bank stabilization locations; removal and replacement of 5 existing driveway aprons and lower driveway segments along the east side of S. 90th East Avenue; and the raising of sections of S. 90th East Avenue, South 89th East Avenue, and East 111th Street 1 foot and the associated roadway reconstruction. (Figures 3a, 3b).

Previous Section 106 Coordination

The City of Bixby notified the Oklahoma Historic Preservation Office (SHPO) and Oklahoma Archaeological Survey (OAS) in 2008 via letter of its intention to apply for an HMGP grant from FEMA to fund this project. These letters are not dated. The project is defined in these letters as including the "creation of a detention pond by the removal of two structures and the elevation of adjacent streets." There is no mention of the driveway replacements, the culvert replacements, or the sanitary sewer replacements. The Oklahoma SHPO has not responded to the City of Bixby notification letters.

The OAS replied to the City of Bixby in a letter dated July 10, 2008. OAS stated that, based on the hydrologic and topographic information provided, the state archaeological site files indicate no sites are located within the project area. OAS further indicated that no archaeological materials are likely to be encountered and an archaeological field inspection is not considered necessary. The letter concluded that if archaeological materials are exposed during construction, OAS is to be contacted immediately in order to evaluate their significance. The OAS letter was copied to the SHPO.

Area of Potential Effects (APE)

A URS Architectural Historian qualified under the *Secretary of the Interior's Professional Qualification Standards* (36 CFR Part 61) in the disciplines of history and historic architecture, and a URS Archaeologist qualified under the *Secretary of the Interior's Professional Qualification Standards* (36 CFR Part 61) in the discipline of archaeology, conducted a desktop assessment of the project's potential to affect historic properties within the APE using Google Earth Professional, 2011. The above ground APE includes the project area encompassing the locations of all the proposed work to account for direct effects, and an approximate 200-foot buffer around the project area to assess indirect effects (Figure 4). The project area is a built-out 1970s era medium density suburban development characterized by many two-story houses, mature trees, and curvilinear roads; all of which combine to create view sheds of limited distance. A 200-foot buffer around this area would accommodate any views of the specific project locations, including houses to be demolished, which account for the proposed project's greatest impact to the above ground visual character of the area.

The archaeological APE is defined as the area of anticipated ground disturbance, including ingress/ egress routes for heavy equipment and areas where utilities will be relocated and adjusted. Utilities are expected to be located in the right-of-way (ROW) within the defined archaeological APE. All heavy equipment will use existing roadways (Figure 5).

Bixby, Oklahoma 90th East. Avenue & S. 111th Street Drainage Street Improvements & Property Acquisitions

Site Description. The project site consists of roughly 1.5 acres along a channelized natural drainage bounded on the north by S. 111th Street and on the south by E. 113th Street. The western boundary of the project area extends approximately 100 feet beyond the drainage channel and the eastern boundary extends approximately 50 feet beyond the eastern edge of S. 90th East Avenue. As stated previously, the project area is characterized by 1970s-era residential development. The building stock consists of ranch, split-level and two-story detached houses on separate parcels. The houses that will be demolished are a ranch house and a split-level house (Figure 6). Parcels in the APE include driveways, detached garages, and occasional outbuildings and in-ground pools. Streets are curvilinear, not curbed and no sidewalks are present. Above ground infrastructure improvements, such as the stream culverts and sewer line manhole collars or drop structures were likely part of the 1970's development (Figure 6).

Above-ground Resources. The Google Earth Professional analysis of the project site revealed that no above-ground historic properties are apparent within the APE and the project site is not located within or near a National Register of Historic Places (NRHP)-listed property. The NRHP Focus database has no listings for Bixby, Oklahoma. The Oklahoma Historical Society's (SHPO) listing of architectural surveys in the state does not include an architectural survey of Bixby and the SHPO does not list Bixby as one of Oklahoma's Certified Local Governments (CLG). There is no indication of a local historic district or historic landmark program on the City's website and there are no listings for Historic American Building Survey (HABS) or Historic American Engineering Record (HAER) properties in Bixby. FEMA has determined that no above-ground historic properties are present within the APE.

Archaeological Resources. According to the previously referenced correspondence with the OAS, the project location was crosschecked with the Oklahoma state site files and no sites were listed for the project area. In addition, the OAS stated that "based on the topographic and hydrologic setting no archaeological materials are likely to be encountered." Considering the apparent high level of previous disturbance in the area, there appears to be low potential for archaeological resources. An archaeological field inspection is not considered necessary for this project. FEMA has determined there is a low potential for the presence of archaeological properties in the project's archaeological APE.

Summary of Effects to Historic Properties

The undertaking consists of the removal of two 1970s-era residences, development of a stormwater detention pond, raising and elevating roadway (increasing elevation approximately one foot) removal and replacement of two 1970s-era culverts, removal and replacement of 7 1970s-era sanitary sewer manhole collars or drop structures, and removal and replacement of 4 driveway lengths, as measured from the street and not-to-exceed more than 50 linear feet. FEMA has determined that no above-ground historic properties are located within the above ground APE and there is a low potential for the presence of archaeological resources in the archaeological APE. Accordingly, FEMA has determined that the proposed undertaking will have no effect on historic properties. If archaeological resources become exposed during the project, FEMA will immediately contact the Osage Nation Tribal Historic Preservation Officer (THPO), OAS and the SHPO.

FEMA requests THPO concurrence with its findings and determinations as presented above. If you have any questions or need additional information, please contact Lawrence Frank of URS at (678) 808-8960 or Dorothy Weir, FEMA Environmental Specialist, at (940) 383-7250.

Sincerely,


Kevin Jaynes, CHMM
Regional Environmental Officer
FEMA Region 6

Chief John Red Eagle

January 17, 2012

Page 5

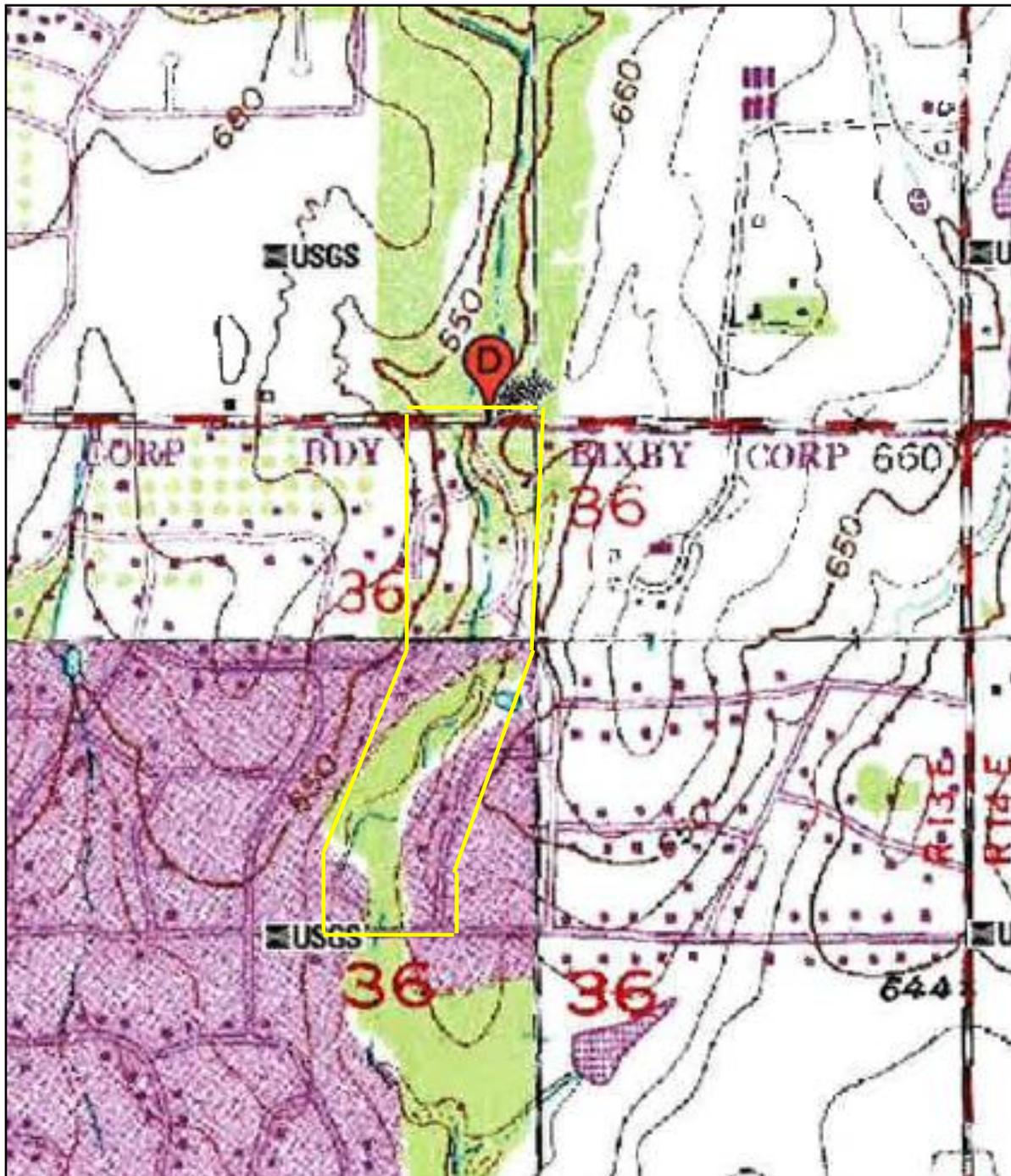
Enclosures: Figure 1a, 1b – Project Area Satellite Photo and USGS Maps
Figure 2 – Project Site Plans
Figure 3a, 3b – Preliminary Construction Plans
Figure 4 – Above Ground APE
Figure 5 – Archaeological APE
Figure 6 – Photograph Log

cc: Dr. Andrea Hunter, Tribal Historic Preservation Officer
Osage Nation Historic Preservation Office
627 Grandview
Pawhuska, Oklahoma 74056



Approximate Project Area

PROJ Bixby, Oklahoma 90 th Street Drainage Project	Satellite Photo Project Location Map	
SCALE N/A		
SOURCE Google Earth Professional, 2011		



North

Approximate Project Area



PROJ Bixby, Oklahoma 90th Street Drainage Project

SCALE Not to scale

SOURCE Acme Mapper 2.0

USGS Map Project Location Map



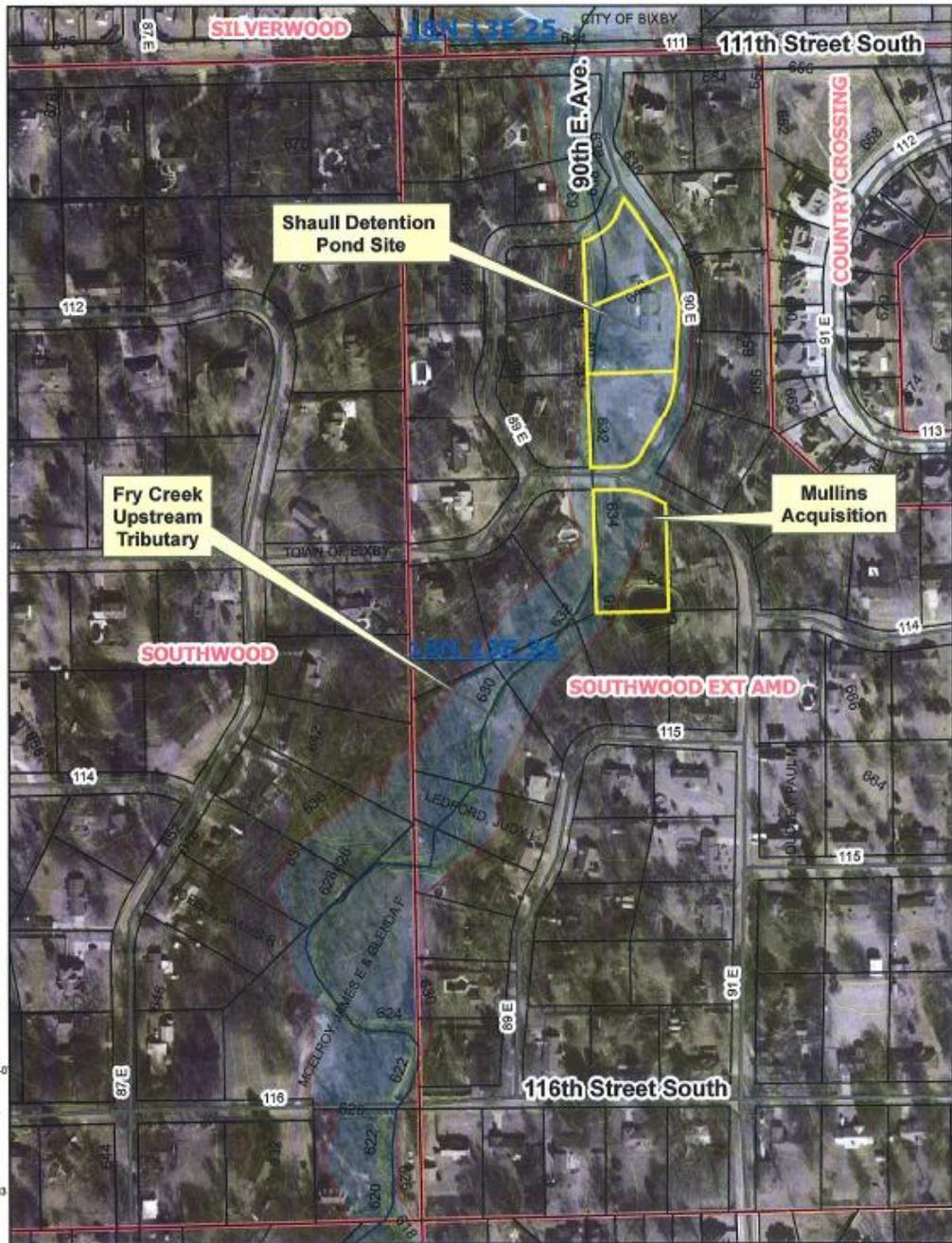
PROJECT NO. 15702509

FIGURE NO. 1b

N

Note: Floodplain data is approximate only and is represented only for comparison with FEMA Floodplain data.

Floodplain data represents post-2001 LOMR for Fry Creek Ditch Channel Improvements (Corps of Engineers project).



0 165 330 660 990 1,320 Feet

City of Bixby ~ Planning
Printed 07/01/2008

PROJ Bixby, Oklahoma 90th Street Drainage Project

SCALE See above

SOURCE USGS 7.5' Series Quad: Salt Lake City North

Project Site Plans



PROJECT NO. 15702509

FIGURE NO. 2

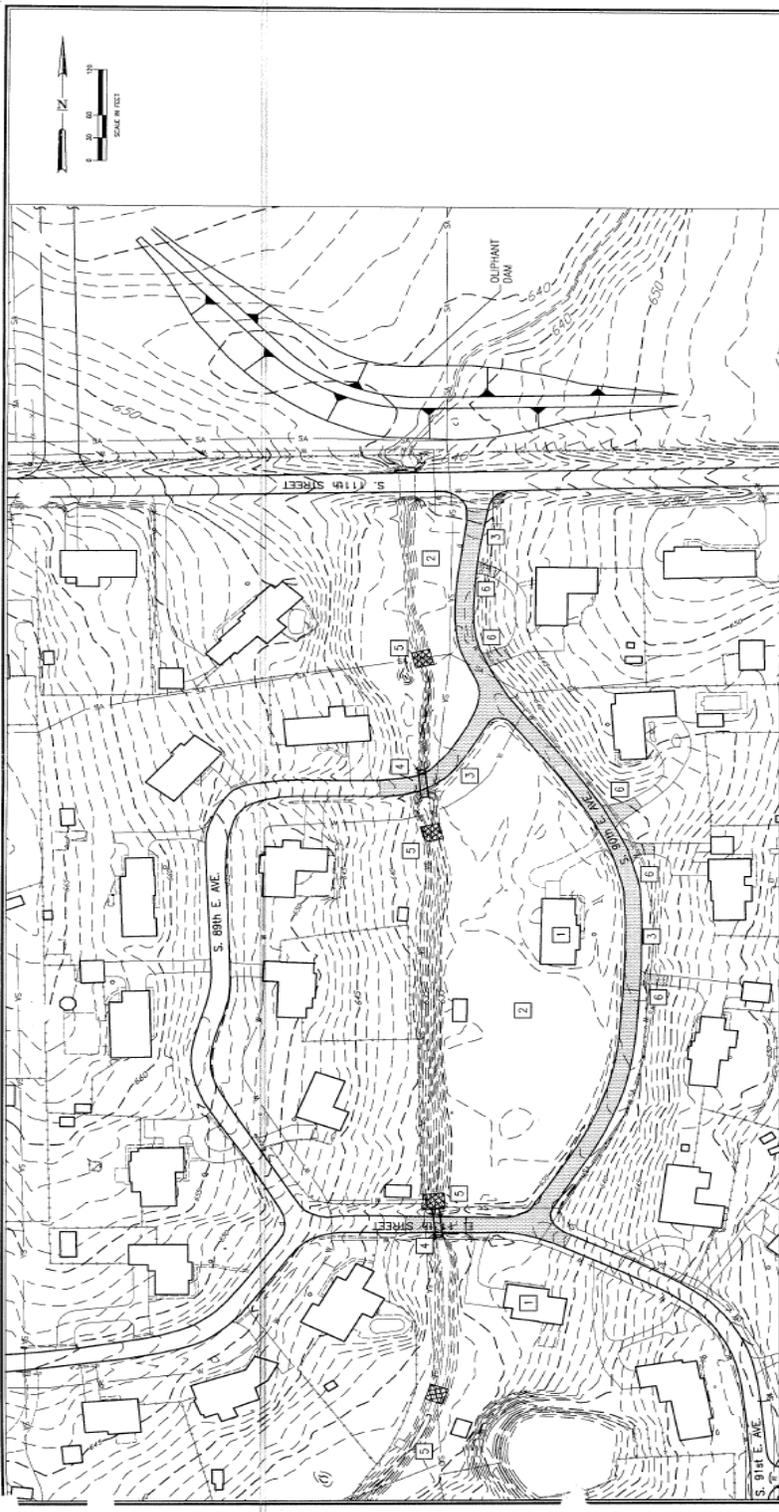


Exhibit 'A'

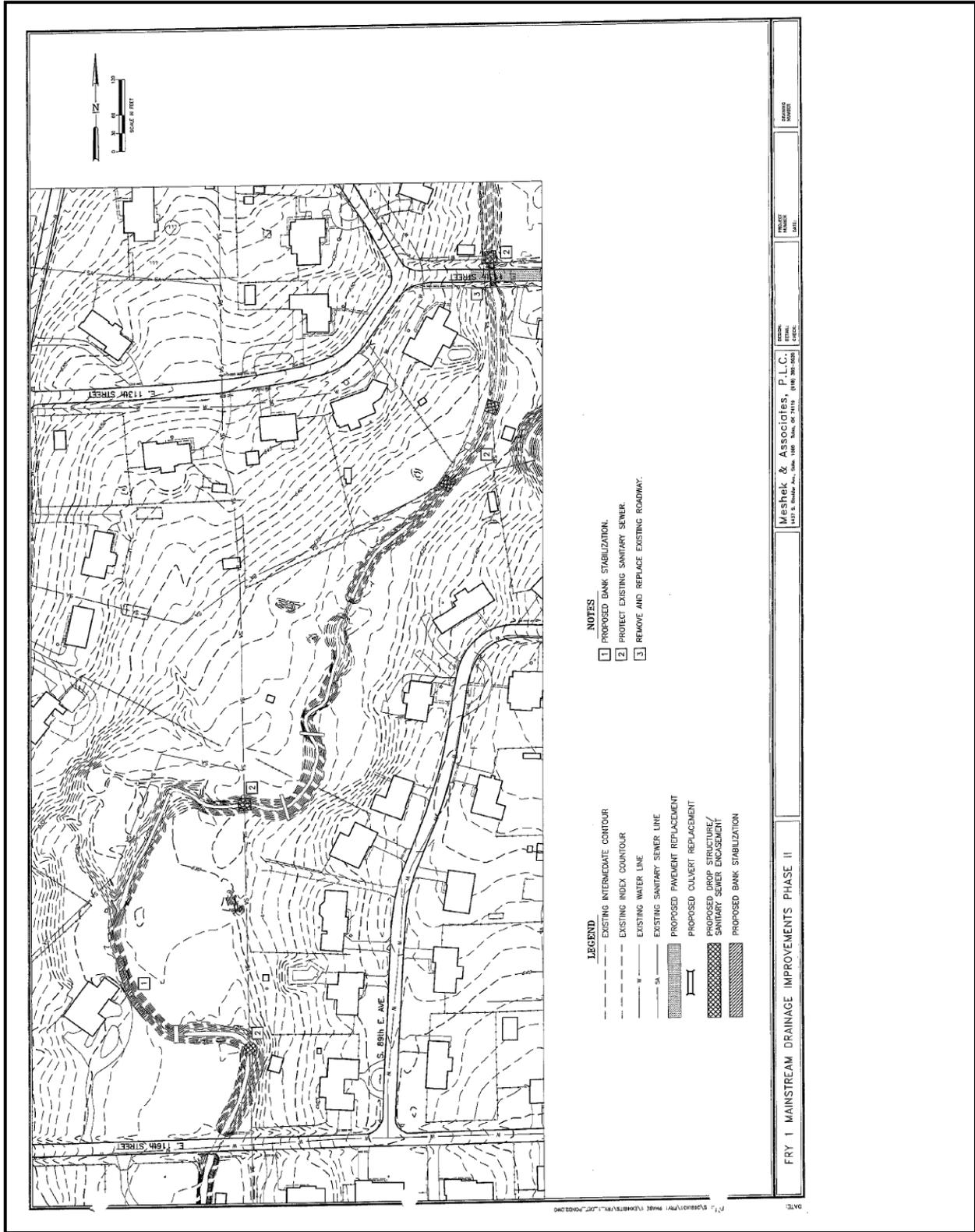
- LEGEND**
- EXISTING INTERMEDIATE CONTOUR
 - EXISTING INDEX CONTOUR
 - EXISTING WATER LINE
 - EXISTING SANITARY SEWER LINE
 - PROPOSED PAVEMENT REPLACEMENT
 - PROPOSED CULVERT REPLACEMENT
 - PROPOSED DROP STRUCTURE/ SANITARY SEWER ENCASMENT
- NOTES**
- 1 HOUSE TO BE ACQUIRED.
 - 2 STORMWATER DETENTION AREA.
 - 3 RAISE AND RECONSTRUCT ROADWAY.
 - 4 CULVERT REPLACEMENT.
 - 5 REPLACE EXISTING SANITARY SEWER.
 - 6 REMOVE AND REPLACE EXISTING DRIVEWAY.

FRY 1 MAINSTREAM DETENTION POND

Meshek & Associates, P.L.L.C.
 1437 S. Boulder Ave., Suite 1000, Tulsa, OK 74119 (918) 251-5000

PROJECT NUMBER: 15702509
 SHEET NUMBER: 3a

PROJ Bixby, Oklahoma 90 th Street Drainage Project	Preliminary Construction Plans	PROJECT NO. 15702509
SCALE See above		FIGURE NO. 3a
SOURCE City of Bixby, Oklahoma	URS	

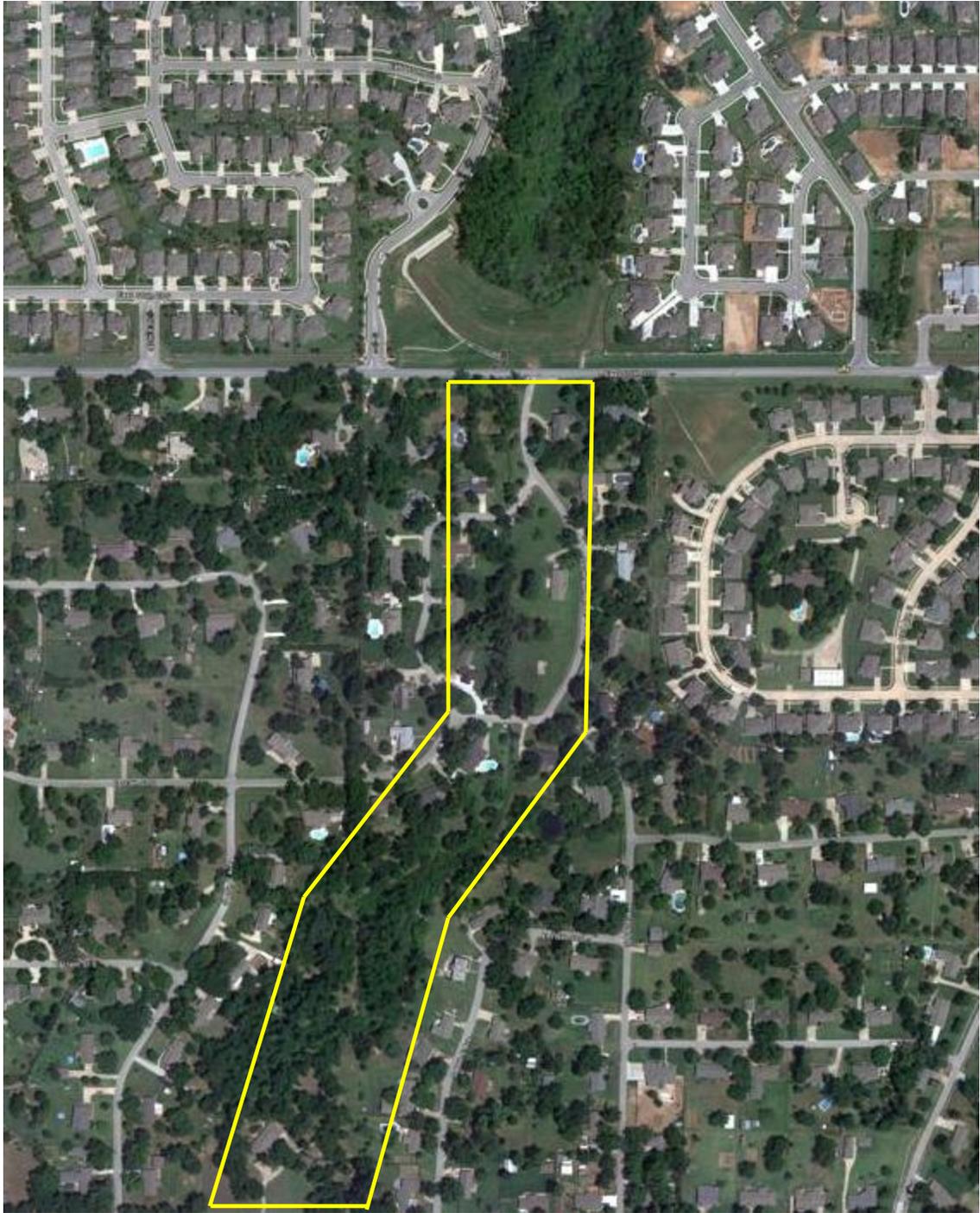


PROJ	Bixby, Oklahoma 90 th Street Drainage Project
SCALE	See above
SOURCE	City of Bixby, Oklahoma

Preliminary Construction Plans

URS

PROJECT NO.	15702509
FIGURE NO.	3b



↑ North

PROJ Bixby, Oklahoma 90th Street Drainage Project

Above Ground APE

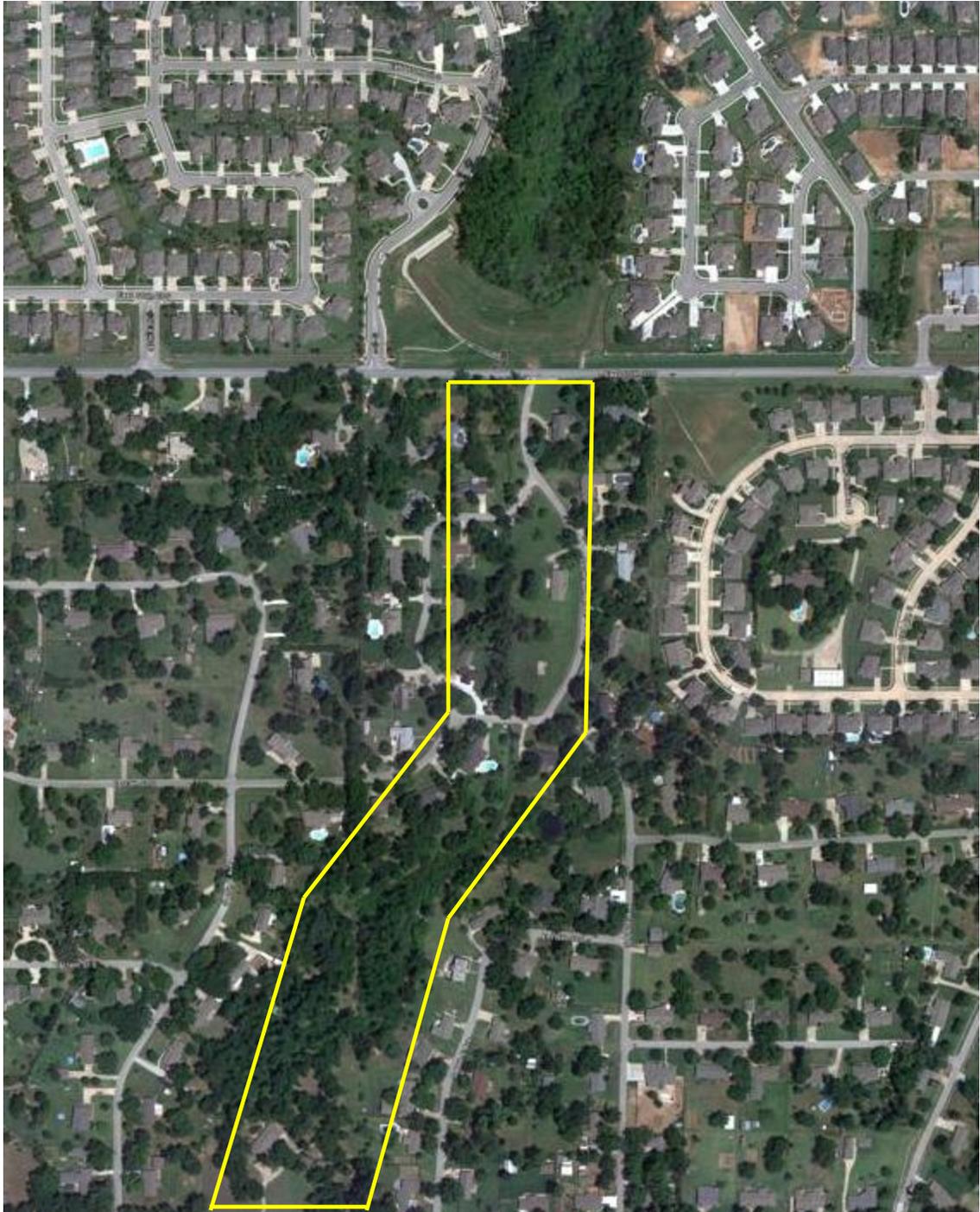
SCALE N/A

SOURCE Google Earth Professional, 2011



PROJECT NO. 15702509

FIGURE NO. 4



↑ North

PROJ Bixby, Oklahoma 90 th Street Drainage Project	Archaeological APE	
SCALE N/A		PROJECT NO. 15702509
SOURCE Google Earth Professional, 2011		FIGURE NO. 5



Subapplicant Name:
City of Bixby, Oklahoma

Site Location:
90th East Avenue & S. 111th Street

Date
9/30/11

Photo No.
1

Direction:
Facing west

Description:
Front elevation of 90th
East Avenue house (to
be demolished)

Author: City of Bixby



Date
9/30/11

Photo No.
2

Direction:
Facing south

Description:
Front elevation of E.
113th Street house (to
be demolished)

Author: City of Bixby





Subapplicant Name:
City of Bixby, Oklahoma

Site Location:
90th East Avenue & S. 111th Street

Date
9/30/11

Photo No.
3

Direction:
Facing south

Description:
Section of S. 111th Street culvert (north end) and view of drainage channel

Author: City of Bixby



Date
9/30/11

Photo No.
4

Direction:
Facing West

Description:
Sanitary sewer

Author: City of Bixby



February 8, 2012

Timothy G. Baugh, Ph.D.
Historical Archaeologist /
Section 106 Program Coordinator
State Historic Preservation Office
Oklahoma History Center
800 Nazih Zuhdi Drive
Oklahoma City, OK 73105-7917

RE: SHPO ID 0602-12

Dear Dr. Baugh:

Enclosed, please find a revised version of Figure 6 for FEMA's consultation submittal for a proposed Hazard Mitigation Grant Program (HMGP) Acquisition and Demolition project in Bixby, OK (OK SHPO ID 0602-12). I am hopeful that this revision addresses the concerns you outlined via email and on the telephone this week.

Please do not hesitate to contact me directly with any questions, sir. FEMA looks forward to receiving a final response from your office, and we appreciate the time you and your staff have already committed to this effort.

Sincerely,

Michael Verderosa
Senior Architectural Historian



Subapplicant Name:

City of Bixby, Oklahoma

Date	Data Point	Photo No.
9/30/11		1

Direction Photo Taken:

Facing west

Description:

Front elevation of
11270 S. 90th E. Avenue
Bixby, OK 74008

House to be Demolished

Date of Construction:

1970

Author: FEMA



Date	Data Point	Photo No.
9/30/11		2

Direction Photo Taken:

Facing south

Description:

Front elevation of
8944 E. 113th Street
Bixby, OK 74008

House to be Demolished

Date of Construction:

1971

Author: FEMA





Subapplicant Name:
City of Bixby, Oklahoma

Site Location:
90th E. Avenue & 111th St. S.

Date	Data Point	Photo No.
9/30/11		3

Direction Photo Taken:

Facing south

Description:

Section of 111th Street South culvert (north end) and view of drainage channel

Date of Construction:
1998



Author: FEMA

Date	Data Point	Photo No.
		4

Direction Photo Taken:

Description:

Sanitary sewer looking west

Date of Construction:
1998



Author: FEMA

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Oklahoma Archeological Survey

THE UNIVERSITY OF OKLAHOMA

January 24, 2012

Kevin Jaynes
FEMA
909 N. Loop 288
Denton, Texas 76209

Re: Proposed Bixby, Oklahoma 90th Street Drainage Project. Legal Description: Section 36 T18N R13E, Tulsa County, Oklahoma.

Dear Mr. Jaynes:

The Community Assistance Program staff of the Oklahoma Archeological Survey has reviewed the above referenced project in order to identify potential areas that may contain prehistoric or historic archaeological materials (historic properties). The location of your project has been crosschecked with the state site files containing approximately 18,000 archaeological sites that are currently recorded for the state of Oklahoma. No sites are listed as occurring within your project area, and based on the topographic and hydrologic setting; no archaeological materials are likely to be encountered. Thus an archaeological field inspection is not considered necessary. However, should construction activities expose buried archaeological materials such as chipped stone tools, pottery, bone, historic crockery, glass, metal items or building materials, this agency should be contacted immediately at (405) 325-7211. A member of our staff will be sent to evaluate the significance of these remains.

This environmental review and evaluation is performed in order to locate, record, and preserve Oklahoma's prehistoric and historic cultural heritage in cooperation with the State Historic Preservation Office, Oklahoma Historical Society, and you must also have a letter from that office to document your consultation pursuant to Section 106 of the National Historic Preservation Act. In addition to our review comments, under 36CFR Part 800.3 you are reminded of your responsibility to consult with the appropriate Native American tribe/groups to identify any concerns they may have pertaining to this undertaking and potential impacts to properties of traditional and/or ceremonial value.

Sincerely,

Fabiola E. Silva
Staff Archaeologist

Robert L. Brooks
State Archaeologist

:ls

Cc: SHPO





Oklahoma Historical Society
State Historic Preservation Office

Founded May 27, 1893

Oklahoma History Center • 800 Nazih Zuhdi Drive • Oklahoma City, OK 73105-7917
(405) 521-6249 • Fax (405) 522-0816 • www.okhistory.org/shpo/shpom.htm

February 8, 2012

Mr. Kevin Jaynes
Regional Environmental Officer
FEMA Region 6
909 North Loop, #288
Denton, TX 76209

RE: File #0602-12; Bixby, Oklahoma, 90th Street Drainage Project, Section 36 T18N R13E, Tulsa County

Dear Mr. Jaynes:

We have reviewed the documentation submitted on the referenced project. Additionally, we spoke with your consultant, Mr. Michael Verderosa on February 7th, 2012, and we no longer require copies of the 2008 letter from the City of Bixby. Our database clearly shows that we received no letters from the City of Bixby concerning this project in 2008 or any other year. Additionally, FEMA has not delegated the City of Bixby the authority to initiate the Section 106 process with our office.

We find that, after receiving the legal location for your project from the Oklahoma Archeological Survey and the explanation provided by Mr. Verderosa concerning the four specific areas of potential effect outlined in yellow in Figure 2, we are still unable to complete the review of your project without the following additional information:

The dates of construction for the two residences scheduled for demolition as part of this project. We do not need nor do we request photographs of buildings that are less than forty-five (45) years old. We simply need the dates of construction and exact addresses of such properties. While perhaps we could have established an approximate construction date from the photographs, trees obscured one of the houses so much that this was not possible.

If you should have any questions concerning this request, please contact me at 405/521-6381.

Thank you for the opportunity to review this project. Please reference the above underlined file number when responding.

Sincerely,

Timothy G. Baugh, Ph.D.
Historical Archaeologist

TGB:pm



Oklahoma Historical Society

Founded May 27, 1893

State Historic Preservation Office

Oklahoma History Center • 800 Nazih Zuhdi Drive • Oklahoma City, OK 73105-7917
(405) 521-6249 • Fax (405) 522-0816 • www.okhistory.org/shpo/shpom.htm

February 1, 2012

Mr. Kevin Jaynes
Regional Environmental Officer
FEMA Region 6
909 North Loop #288
Denton, TX 76209

RE: File #0602-12; Bixby, Oklahoma 90th Street Drainage Project, Tulsa County

Dear Mr. Jaynes:

We have reviewed the documentation submitted on the referenced project. We find that we are unable to complete the review of your project without the following additional information:

- (1) What are the dates of construction for the three culverts at 89th, 112th, and 113th Streets?
- (2) What are the addresses and construction dates for the two residences that will be demolished?
- (3) Our database indicates we have not received any letters concerning this project from the City of Bixby. Could you please provide a copy of the 2008 letter mentioned on Page 2 of your letter under "Previous Section 106 Coordination?" Additionally, has FEMA delegated authority to the City of Bixby to initiate the Section 106 review and compliance process?

If you should have any questions concerning this request, please contact me at 405/521-6381.

Thank you for the opportunity to review this project. Please reference the above underlined file number when responding.

Sincerely,

Timothy G. Baugh, Ph.D.
Historical Archaeologist

TGB:pm



FEMA

February 28, 2012

Dr. Timothy G. Baugh, Ph.D.
Oklahoma Historical Society
Oklahoma History Center
State Historic Preservation Office
800 Nazih Zuhdi Drive
Oklahoma City, Oklahoma 73105-7917

Re: Request for Concurrence – Bixby, Oklahoma: 90th Street Drainage Project, Tulsa County, OK, File #0602-12

Dear Dr. Baugh:

This letter is in response to your request for additional information dated February 8, 2012, in regard to the above referenced project. FEMA's original consultation letter was sent to your office on January 17, 2012.

Two residences are scheduled for demolition as part of this drainage project. The addresses are 11270 S. 90th E. Avenue, Bixby, OK 74008, and 8944 E. 113th Street, Bixby, OK 74008. The structure on S. 90th E. Avenue was constructed in 1970. The structure on E. 113th Street was constructed in 1971. A revised Figure 6: Photographic Log with these details is enclosed.

FEMA has determined that the proposed undertaking will have no effect on historic properties. If archaeological resources become exposed during the project, FEMA will immediately contact the OAS and the SHPO.

FEMA requests SHPO concurrence with its findings and determinations as presented above and in the January 17, 2012 letter. If you have any questions or need additional information, please contact Lawrence Frank of URS at (678) 808-8960 or Dorothy Weir, FEMA Environmental Specialist at (940) 435-9275.

Sincerely,

A handwritten signature in blue ink, appearing to read "Kevin Jaynes".

Kevin Jaynes, CHMM
Regional Environmental Officer
FEMA Region 6

Enclosures: Revised Figure 6 – Photograph Log



Oklahoma Historical Society

Founded May 27, 1893

State Historic Preservation Office

Oklahoma History Center • 800 Nazih Zuhdi Drive • Oklahoma City, OK 73105-7917
(405) 521-6249 • Fax (405) 522-0816 • www.okhistory.org/shpo/shpom.htm

March 2, 2012

Mr. Kevin James, CHMM
Regional Environmental Officer
FEMA Region 6; USDHS
909 N. Loop 288
Denton, TX 76209

RE: File #0602-12; Bixby FEMA Project for 90th Street Drainage & Detention Pond; Section 36
T18N R13E

Dear Mr. James:

We have received and reviewed the documentation concerning the referenced project in Tulsa County. Additionally, we have examined the information contained in the Oklahoma Landmarks Inventory (OLI) files and other materials on historic resources available in our office. We find that there are no historic properties affected by the referenced project.

Thank you for the opportunity to comment on this project. We look forward to working with you in the future.

If you have any questions, please contact Timothy G. Baugh, Ph.D., Historical Archaeologist, at 405/521-6381.

Should further correspondence pertaining to this project be necessary, please reference the above underlined file number. Thank you.

Sincerely,


Melvena Heisch
Deputy State Historic
Preservation Officer

MH:bh

USFWS Correspondence



January 18, 2012

Mr. Ken Frazier
Field Supervisor
U.S. Fish and Wildlife Service, Division of Ecological Services Field Office
9014 East 21st Street
Tulsa, OK 74129

Re: Request for Project Review –90th Street Drainage Project, Bixby, Oklahoma

Dear Mr. Frazier:

The City of Bixby, Oklahoma, has been experiencing flooding problems along 90th East Avenue due to insufficient roadway heights and culvert capacities along Fry Creek. During rain events exceeding 1 inch, Fry Creek consistently floods – leaving 90th East Avenue completely inundated and causing roadway overtopping at 89th East Avenue and 113th Street. Residences and sanitary sewer crossings in this area are affected by flood waters to varying degrees depending on the amount and rate of precipitation.

During flooding events, area motorists who use 90th East Avenue to access main arterial streets are cut off. There are seven residences whose only access becomes completely inaccessible during flood events; residents must wait for the waters to recede to leave or regain access to their properties. During flood events, emergency vehicles are unable to access these homes in a timely manner because of the road closures. The flood events place a strain on sanitary sewer crossings within the area, leading to weakening of and/or damage to lines. The heavy discharge rate of water from these flooding events has also led to stream bank shearing and deterioration.

The City of Bixby has requested FEMA funding under the Hazard Mitigation Grant Program (HMGP) to develop drainage system enhancements and flood control structures to address the recurring flooding in the project area. The City would construct a detention facility, upgrade culvert conveyance to accommodate 100-year flows, elevate existing roadways above the 100-year flood level, construct/update seven sanitary sewer encasements/drop structures, and stabilize stream banks. Specific project components include:

- Constructing a 1.5-acre water detention facility located west of and adjacent to 90th East Avenue,
- Elevating 90th East Avenue and portions of 89th East Avenue and 113th Street above the 100-year flood event,
- Replacing an existing 36-inch reinforced concrete pipe (RCP) culvert with a triple 8-foot x 6-foot reinforced concrete box (RCB) at Basin outlet on 113th Street Bridge,

- Replacing an existing 42-inch RCP culvert with a triple 8-foot x 6-foot RCB culvert at the Basin inlet on 112th Street Bridge,
- Replacing/upgrading sanitary sewer lines and creating seven sanitary sewer encasements/drop structures,
- The creation of an energy dissipation and stilling basin at the 113th Street culvert outflow,
- Stabilizing of stream bank on Fry Creek downstream from 113th Street, and
- Demolishing two houses and removing any associated landscaping or paving.

The project area is located in the City of Bixby, Tulsa County, Oklahoma (Figures 1 and 2), and is comprised of suburban dwellings with associated manicured plots and lawns, interspersed with small areas of trees. A meandering network of paved roadways allows access to the many sub-developments throughout the area. Fry Creek flows through the center of the project area. The proposed 1.5-acre detention facility will require the demolition of an existing residence that will be acquired by the City of Bixby. All material excavated for the construction of the detention facility will be used to raise the surrounding roadways above the 100-year flood level. A second residence to be acquired by the City of Bixby will be cleared for construction of a proposed energy dissipation and stilling basin downstream of the upgraded 113th Street culvert. Existing RCPs will be removed at 89th East Avenue (42-inch RCP) and East 113th Street (36-inch RCP). Seven sewer line encasements/drop structure locations and areas of stream bank stabilization locations are proposed along with the removal and replacement of 5 existing driveway aprons and segments of driveways along the east side of south 90th East Avenue. All project component locations are depicted in Figures 3 through 5 (attached).

URS has been retained by FEMA to prepare an Environmental Assessment for the proposed project. In compliance with the National Environmental Policy Act (NEPA) of 1969, as amended, URS requests that your agency review the proposed project and provide comments and any available information on resources under your agency's jurisdiction within the project area. If you have any questions or need additional information, please contact Brad Burford of URS at (301) 820-3491.

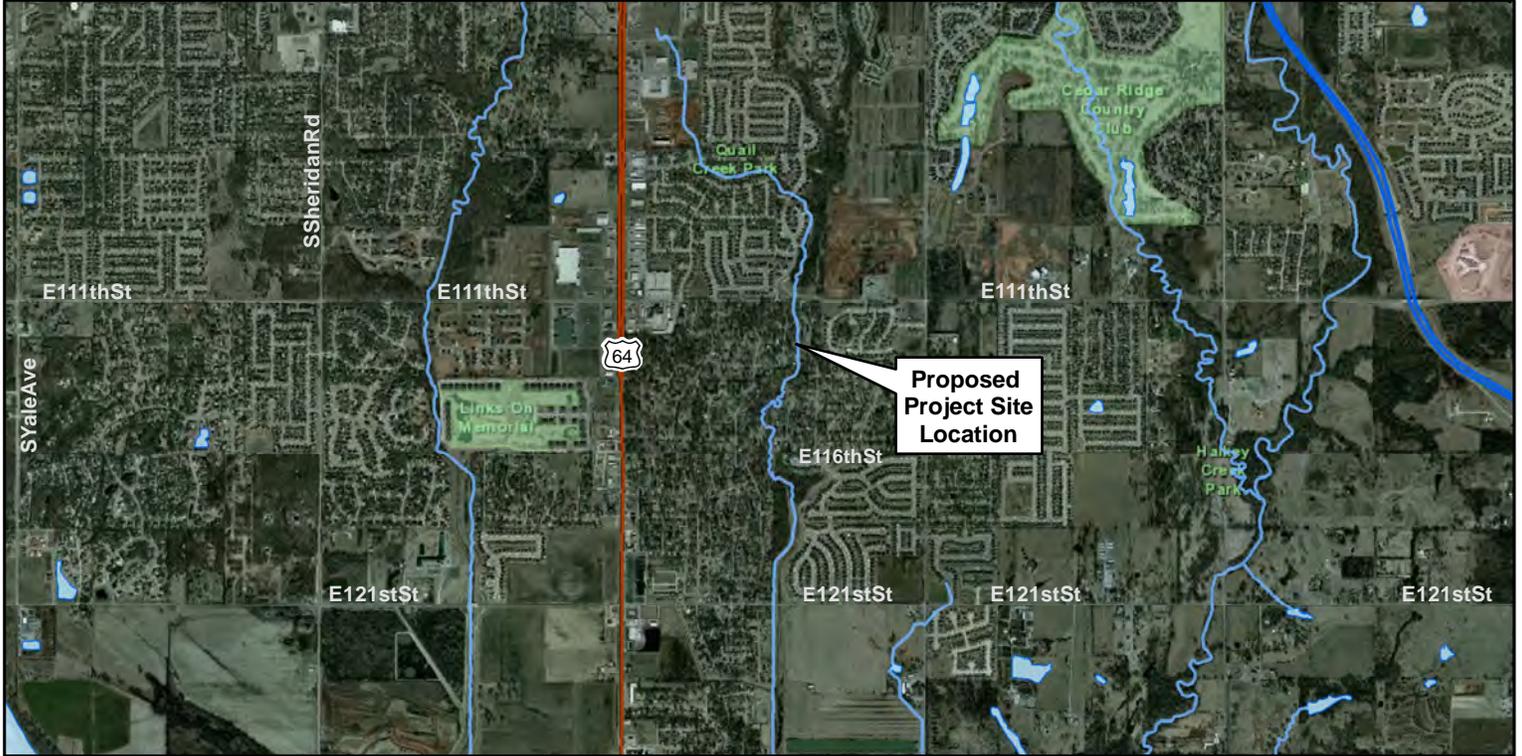
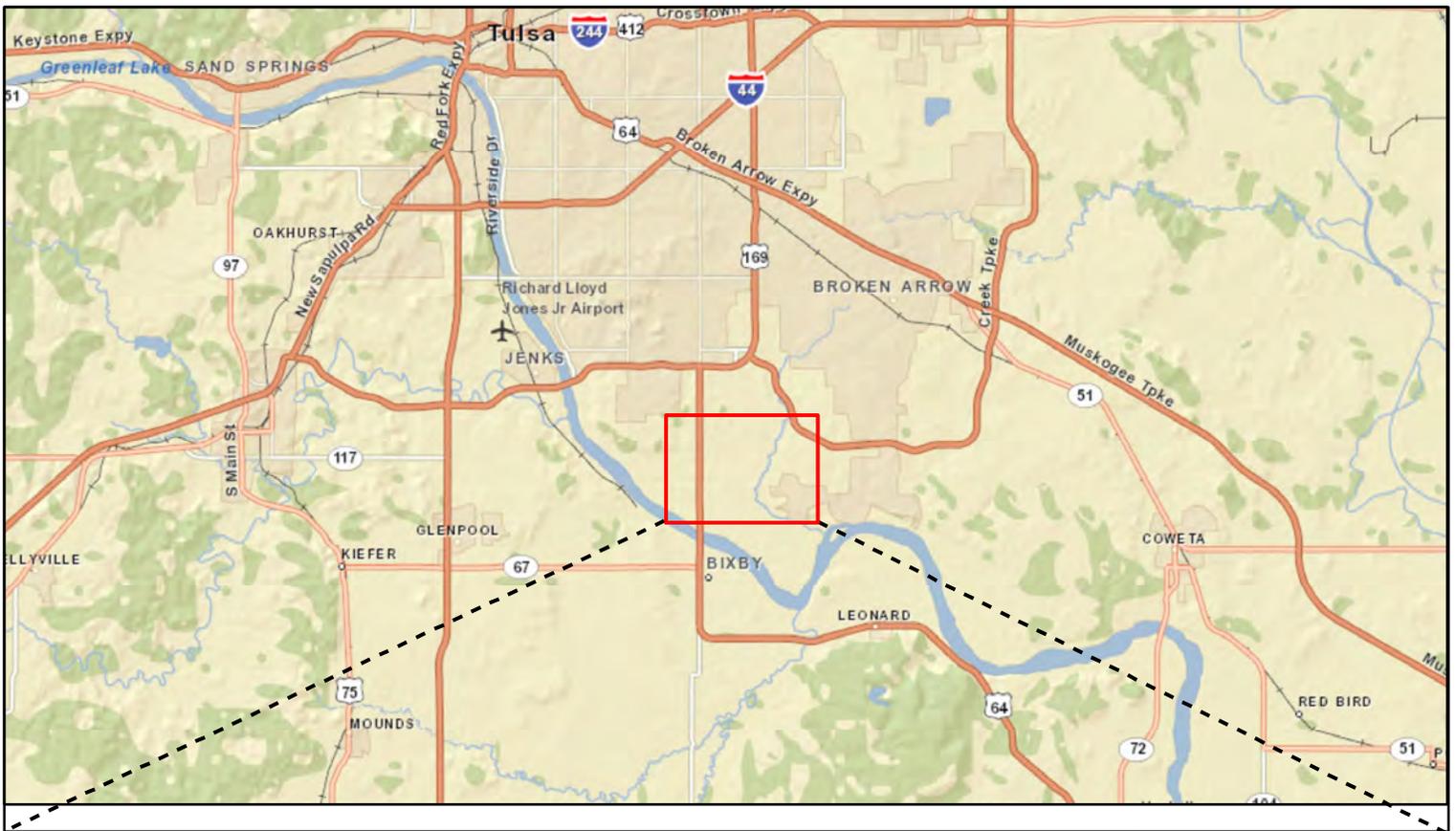
Sincerely,



Brad Burford, AWB®, CWT
URS Group, Inc.

Attachments as noted

cc: Mike Verderosa, URS
Jeffrey Reidenauer, Ph.D., URS



Source: ESRI ArcGIS Online and data partners, including imagery from agencies supplied via the Content Sharing Program



CLIENT		FEMA			TITLE		PROJECT VICINITY			
PROJ		90th Street Drainage Project			 12420 Milestone Center Drive Germantown, MD 20876		PROJ NO		15702509	
APPLICANT		City of Bixby, OK					SCALE		Not to Scale	
REVISION NO							DES BY		JK	
FILE		G:\Projects\Z_Short_Term_Projects\Bixby\MXD			CHK BY		BB		01/03/2012	
									FIGURE <h1 style="font-size: 2em; margin: 0;">1</h1>	



Source: Microsoft Corporation - Bing Maps and its data suppliers, 2009

	Legend
	<ul style="list-style-type: none"> Proposed Project Area Proposed Drop Structure/Sanitary Sewer Encasement Stream Bank Restoration

CLIENT FEMA		TITLE PROJECT AREA	
PROJ 90th Street Drainage Project		<p>12420 Milestone Center Drive Germantown, MD 20876</p>	PROJ NO 15702509
APPLICANT City of Bixby, OK	SCALE 0 150 300 600 Feet		FIGURE 2
REVISION NO	DES BY JK	01/03/2012	
FILE G:\Projects\Z_Short_Term_Projects\Bixby\MXD	CHK BY BB	01/03/2012	

Burford, Brad

From: David_Martinez@fws.gov
Sent: Friday, February 10, 2012 3:29 PM
To: Burford, Brad
Subject: Request for Project Review: 90th Street Drainage Project, Bixby, OK

Mr. Brad Burford
URS Group, Inc.
12420 Milestone Center Drive, Suite 150
Germantown, MD 20876

Dear Mr. Burford

The U.S. Fish and Wildlife Service (Service) has received your request to review the subject project. Based on an initial review of the submitted materials, the Service does not yet have all information needed to complete a review and provide the comments you requested on the project.

I would like to suggest that you consider resubmitting the review request through the Service's online project review system. We launched this system over the last several months and are now receiving a majority of review requests through this system. The system offers advantages by being clearer in the range of project information needed to complete a review and also in a faster average response time we are able to provide for project proponents. Most proponents have found the online process easy to complete, and staff here are happy to provide assistance with the system, should you have questions.

The system may be found at our website, <http://www.fws.gov/southwest/es/oklahoma/>. Once at that home page, you will see a series of menu choices down the left side of the page. One of those choices, "Project Reviews," will take you into the online review request system. Completion of the system process will require you to do things like define your project area, and complete various blanks and tables. One part will ask you to make your own evaluation of the project's potential effects on listed species. Fact sheets posted elsewhere on the homepage will help you make your evaluation, by describing the habitats used by the listed species. For example, your project may be in a county inhabited by endangered least terns, but because the terns inhabit major rivers, you could conclude no effect on endangered terns if your project area is not in or next to a major river like the Arkansas River. Once you complete the process, the system will describe the process of submitting your package for Service review, if necessary, and receiving response letters from the Service.

I encourage you to try submitting the Bixby project through the Service's new online system, and to use this for future projects submitted by URS as well.

David Martinez
Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
Oklahoma Ecological Services Field Office
9014 E. 21st Street
Tulsa, OK 74129

918-382-4508 (office voice)
918-581-7467 (fax)
david_martinez@fws.gov (e-mail)

Burford, Brad

From: Burford, Brad
Sent: Friday, February 10, 2012 4:49 PM
To: 'OKProjectReview@fws.gov'
Subject: Project 02EKOK00-2012-SLI-0246
Attachments: Combined Package.pdf

Dear Mr. Martinez,

Please find attached the requested documents as per your email dated February 10, 2012.

Bradley B. Burford, AWB[®], CWT

URS Corporation

12420 Milestone Center Drive

Suite 150

Germantown, MD 20876

(Office): 301-820-3000

(Direct): 301-820-3491

(Fax): 301-820-3009

This e-mail and any attachments contain URS Corporation confidential information that may be proprietary or privileged. If you receive this message in error or are not the intended recipient, you should not retain, distribute, disclose or use any of this information and you should destroy the e-mail and any attachments or copies.



United States Department of Interior
Fish and Wildlife Service

Project name: Bixby, OK 90th East Ave Drainage Project

Official Species-list: *Bixby, OK 90th East Ave Drainage Project*

Oklahoma Ecological Services Field Office

Following is an official U.S. Fish and Wildlife Service species-list from the Oklahoma Ecological Services Field Office. The species-list identifies listed and proposed species and designated and proposed critical habitat that may be affected by the project "Bixby, OK 90th East Ave Drainage Project". You may use this list to meet the requirements of section 7(c) of the Endangered Species Act of 1973, as amended (ESA).

This species-list has been generated by the Service's on-line Information, Planning, and Conservation (IPaC) decision support system based on project type and location information you provided on February 10, 2012, 1:21 PM. This information is summarized below.

Please reference our tracking number, 02EKOK00-2012-SLI-0246, in future reference to this project to assist in expediting the process.

Newer information based on updated surveys, changes in the abundance and distribution of listed species, changed habitat conditions, or other factors could change this list. Please feel free to contact the office(s) identified below if you need more current information or assistance regarding the potential presence of federally proposed, listed, or candidate species, or proposed or designated critical habitat. Please note that under the ESA, a species-list is valid for 90 days. Therefore, the Service recommends that you visit the IPaC site at regular intervals during project planning and implementation for updates to species-lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive this list. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

This list below only addresses federally proposed, listed, or candidate species and federally designated critical habitat. Please contact the appropriate State agencies for information regarding State species of special designation. Also, please feel free to contact the office(s) identified below if you would like information on other important trust resources (such as migratory birds) in your project area.

From:

Brad Burford AWB, CWT
URS Group, Inc.
12420 Milestone Center Drive, Suite 150
Germantown, MD 20876
Office: (301)-820-3491 Fax: (301)-820-3009 Email: brad.burford@urs.com

To:

U.S. Fish and Wildlife Service
Oklahoma Ecological Services Field Office
9014 E 21st Street
Tulsa, Oklahoma 74129

February 13, 2012

Re:

Online Project Review Request
Bixby, OK 90th East Avenue Drainage Project, Tulsa County

We have reviewed the referenced project using the Oklahoma Ecological Services Field Office's online project review process and have followed all guidance and instructions in completing the review. We completed our review on February 10, 2012 and are submitting our project review package in accordance with the instructions for further review.

Our proposed action consists of:

See attached project description.

The location of the project and the action area are identified on the enclosed map

See Figures 1 and 2 attached.

The project is expected to be completed Start Date: Will commence upon FEMA grant approval. E

This project review is needed for

The City of Bixby has requested FEMA funding under the Hazard Mitigation Grant Program

The enclosed project review package provides the information about the species and critical habitat considered in our review, and the species conclusions table included in the package identifies our determinations for the resources that may be affected by the project.

For additional information, please contact Brad Burford at the address listed above.

Sincerely,

Brad Burford
Environmental Scientist

Enclosures:

1) ENTIRE PROJECT REVIEW PACKAGE:

- Species Conclusion Table
- IPaC Species List and Action Area map
- This letter (Online Project Review Request Letter)
- (Optional) Additional maps

2) Other relevant project data/documents



United States Department of Interior
Fish and Wildlife Service

Project name: Bixby, OK 90th East Ave Drainage Project

This Species-list document is provided by:

OKLAHOMA ECOLOGICAL SERVICES FIELD OFFICE

9014 EAST 21ST STREET

TULSA, OK 74129

(918) 581-7458

<http://www.fws.gov/southwest/es/Oklahoma/>

TAILS consultation code: 02EKOK00-2012-SLI-0246

Project type: Land - Drainage



United States Department of Interior
Fish and Wildlife Service

Project name: Bixby, OK 90th East Ave Drainage Project

Project location map:



Project coordinates: MULTIPOLYGON (((-95.8771355 36.0026396, -95.8746893 36.0026825, -95.8752901 35.999893, -95.8766205 35.9986485, -95.8771355 35.9974039, -95.8773071 35.9962881, -95.8786804 35.9964169, -95.8785517 35.9978331, -95.8773071 35.9986056, -95.8768351 35.9994639, -95.8770926 36.0002793, -95.8771355 36.0026396)))

Project counties: Tulsa, OK



United States Department of Interior
Fish and Wildlife Service

Project name: Bixby, OK 90th East Ave Drainage Project

Endangered Species Act Species-list

American Burying beetle (*Nicrophorus americanus*)

Listing Status: Endangered

Least tern (*Sterna antillarum*)

Population: interior pop.

Listing Status: Endangered

Piping Plover (*Charadrius melodus*)

Population: except Great Lakes watershed

Listing Status: Threatened

Whooping crane (*Grus americana*)

Population: except where EXPN

Listing Status: Endangered



U.S. Fish and Wildlife Service

Natural Resources of Concern

This resource list is to be used for planning purposes only — it is not an official species-list.

Endangered Species Act species-list information for your project is available online and listed below for the following FWS Field Offices:

OKLAHOMA ECOLOGICAL SERVICES FIELD OFFICE
9014 EAST 21ST STREET
TULSA, OK 74129
(918) 581-7458
<http://www.fws.gov/southwest/es/Oklahoma/>

Project Name:

Bixby, OK 90th East Avenue Drainage Project



Natural Resources of Concern

Endangered Species Act Species-list

There are a total of 4 species in your species-list

Species that may be affected by your project:

Birds			
Least tern (<i>Sterna antillarum</i>) Population: interior pop.	Endangered	species info	Oklahoma Ecological Services Field Office
Piping Plover (<i>Charadrius melodus</i>) Population: except Great Lakes watershed	Threatened	species info	Oklahoma Ecological Services Field Office
Whooping crane (<i>Grus americana</i>) Population: except where EXPN	Endangered	species info	Oklahoma Ecological Services Field Office
Insects			
American Burying beetle (<i>Nicrophorus americanus</i>)	Endangered	species info	Oklahoma Ecological Services Field Office

FWS National Wildlife Refuges

There are no refuges found within the vicinity of your project.

FWS Migratory Birds

Not yet available through IPaC.

FWS Delineated Wetlands

Not yet available through IPaC.

Species Conclusions Table

Project Name: Bixby, OK 90th East Avenue Drainage Project

Date: 02/10/2012

Species / Resource Name	Conclusion	ESA Section 7	Notes / Documentation
American Burying Beetle (<i>Nicrophorus americanus</i>)	No potential habitat present.	No effect	This species requires tall grass prairies, woodlands, and forests. No such areas exist in the project area. The project is located in an area of suburban dwellings with associated manicured plots and lawns, interspersed with small areas of trees. Activities will be conducted in this landscape as well as in the Fry drainage ditch.
Least Tern (<i>Sterna antillarum</i>)	No potential habitat present.	No effect	This species uses sparsely vegetated sandy beach areas along major rivers and coastal watersheds. The project is located in an area of suburban dwellings with associated manicured plots and lawns, interspersed with small areas of trees. Activities will be conducted in this landscape as well as in the Fry drainage ditch.
Piping Plover (<i>Charadrius melodus</i>)	No potential habitat present.	No effect	This species uses sparsely vegetated sandy beach areas along major rivers and coastal watersheds. The project is located in an area of suburban dwellings with associated manicured plots and lawns, interspersed with small areas of trees. Activities will be conducted in this landscape as well as in the Fry drainage ditch.
Whooping Crane (<i>Grus Americana</i>)	No potential habitat present.	No effect	This species requires freshwater wetlands, and coastal brackish wetlands. No such areas are present within the project area. The project is located in an area of suburban dwellings with associated manicured plots and lawns, interspersed with small areas of trees. Activities will be conducted in this landscape as well as in the Fry drainage ditch.

Remember to save a copy of this form once you have filled it out. This table is part of your project review package.

Project Description

The City of Bixby, Oklahoma, has been experiencing flooding problems along 90th East Avenue due to insufficient roadway heights and culvert capacities along Fry Creek. During rain events exceeding 1 inch, Fry Creek consistently floods – leaving 90th East Avenue completely inundated and causing roadway overtopping at 89th East Avenue and East 113th Street. Residences and sanitary sewer crossings in this area are affected by flood waters to varying degrees depending on the amount and rate of precipitation.

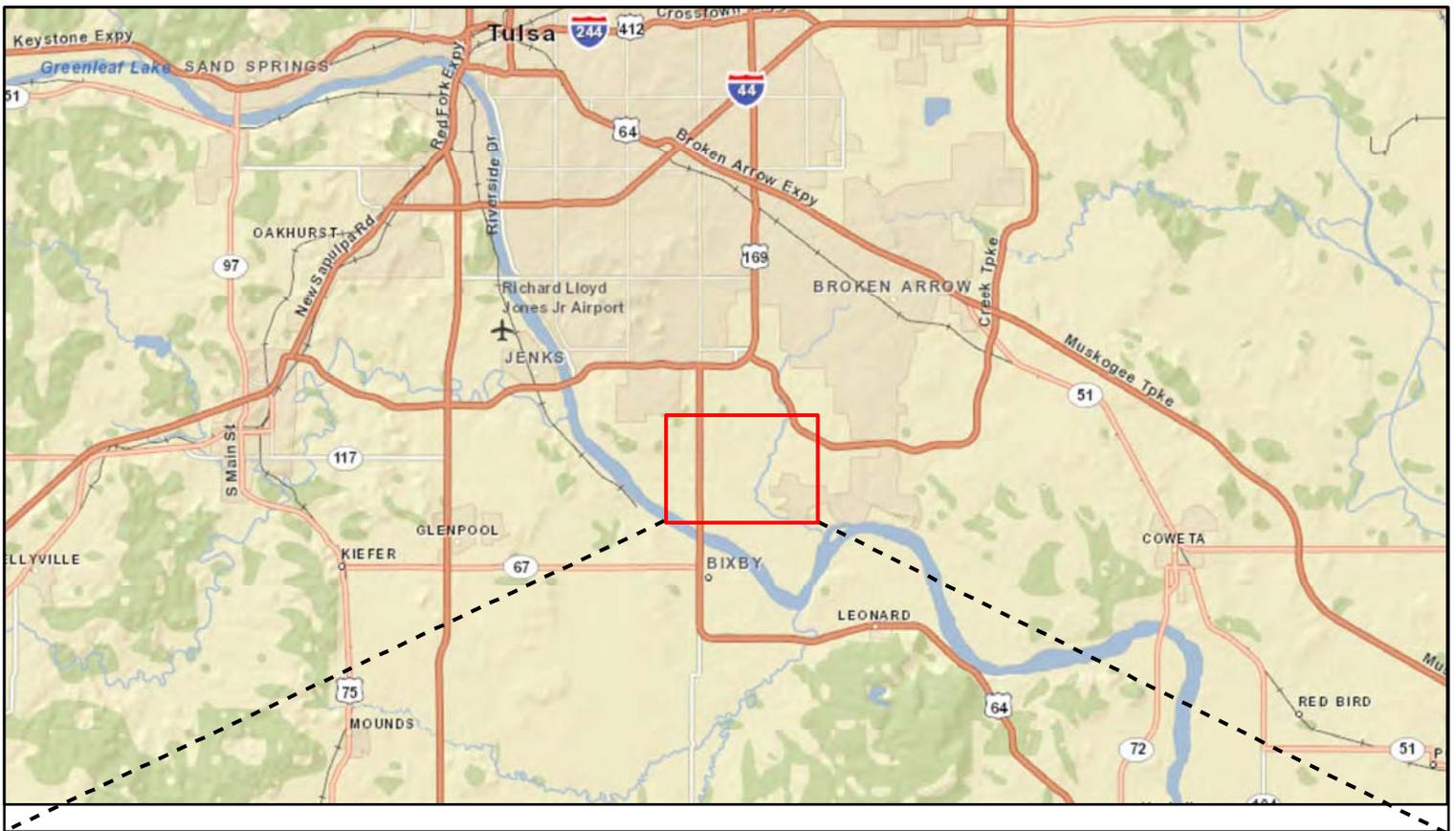
During flooding events, area motorists who use 90th East Avenue to access main arterial streets are cut off. There are seven residences whose only access becomes completely inaccessible during flood events; residents must wait for the waters to recede to leave or regain access to their properties. During flood events, emergency vehicles are unable to access these homes in a timely manner because of the road closures. The flood events place a strain on sanitary sewer crossings within the area, leading to weakening of and/or damage to lines. The heavy discharge rate of water from these flooding events has also led to stream bank shearing and deterioration.

The City of Bixby has requested FEMA funding under the Hazard Mitigation Grant Program (HMGP) to develop drainage system enhancements and flood control structures to address the recurring flooding in the project area. The City would construct a detention facility, upgrade culvert conveyance to accommodate 100-year flows, elevate existing roadways above the 100-year flood level, construct/update seven sanitary sewer encasements/drop structures, and stabilize stream banks. Specific project components include:

- Constructing a 1.5-acre water detention facility located west of and adjacent to 90th East Avenue,
- Elevating 90th East Avenue and portions of 89th East Avenue and East 113th Street above the 100-year flood event,
- Replacing an existing 36-inch reinforced concrete pipe (RCP) culvert with a triple 8-foot x 6-foot reinforced concrete box (RCB) at Basin outlet on East 113th Street Bridge,
- Replacing an existing 42-inch RCP culvert with a triple 8-foot x 6-foot RCB culvert at the Basin inlet on 89th East Avenue Street Bridge,
- Replacing/upgrading sanitary sewer lines and creating seven sanitary sewer encasements/drop structures,
- The creation of a 0.11-acre energy dissipation area at the East 113th Street culvert outflow,
- Stabilizing of stream bank within sewer line right-of-ways, and
- Demolishing two houses and removing any associated landscaping or paving.

The project area is located in the City of Bixby, Tulsa County, Oklahoma (Figures 1 and 2 attached), and is comprised of suburban dwellings with associated manicured plots and lawns, interspersed with small areas of trees. A meandering network of paved roadways allows access to the many sub-developments throughout the area. Fry Creek flows through the center of the project area. The proposed 1.5-acre detention facility will require the demolition of an existing residence that will be acquired by the City of Bixby. All material excavated for the construction of the detention facility will be used to raise the surrounding roadways above the 100-year flood level. A second residence to be acquired by the City of Bixby will be cleared for construction of a proposed 0.11-acre energy dissipation area downstream of the upgraded 113th Street culvert. Existing RCPs will be removed at

89th East Avenue (42-inch RCP) and East 113th Street (36-inch RCP). Seven sewer line encasements/drop structure and related stream bank stabilization locations are proposed along with the removal and replacement of 5 existing driveway aprons and segments of driveways along the east side of south 90th East Avenue. All project component locations are depicted in Figure 2 (attached).



Source: ESRI ArcGIS Online and data partners, including imagery from agencies supplied via the Content Sharing Program



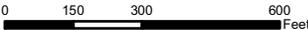
CLIENT		FEMA		TITLE		PROJECT VICINITY				
PROJ		90th Street Drainage Project		 12420 Milestone Center Drive Germantown, MD 20876		PROJ NO		15702509		
APPLICANT		City of Bixby, OK				SCALE		Not to Scale		
REVISION NO						DES BY		JK		
FILE		G:\Projects\Z_Short_Term_Projects\Bixby\MXD		CHK BY		BB		01/03/2012		
								FIGURE		1



Legend

-  Proposed Project Area
-  Proposed Drop Structure/Sanitary Sewer Encasement

Source: Microsoft Corporation - Bing Maps and its data suppliers, 2009

CLIENT		FEMA		TITLE		PROJECT AREA			
PROJ		90th Street Drainage Project		 12420 Milestone Center Drive Germantown, MD 20876		PROJ NO		15702509	
APPLICANT		City of Bixby, OK				FIGURE		2	
REVISION NO		SCALE				DES BY		JK	01/03/2012
FILE		G:\Projects\Z_Short_Term_Projects\Bixby\MXD		CHK BY		BB		01/03/2012	

Oklahoma Department of Wildlife Conservation Correspondence



January 18, 2012

Mr. William Ray
Oklahoma Department of Wildlife Conservation
P.O. Box 53465
Oklahoma City, OK 73152

Re: Request for Project Review –90th Street Drainage Project, Bixby, Oklahoma

Dear Mr. Ray:

The City of Bixby, Oklahoma, has been experiencing flooding problems along 90th East Avenue due to insufficient roadway heights and culvert capacities along Fry Creek. During rain events exceeding 1 inch, Fry Creek consistently floods – leaving 90th East Avenue completely inundated and causing roadway overtopping at 89th East Avenue and 113th Street. Residences and sanitary sewer crossings in this area are affected by flood waters to varying degrees depending on the amount and rate of precipitation.

During flooding events, area motorists who use 90th East Avenue to access main arterial streets are cut off. There are seven residences whose only access becomes completely inaccessible during flood events; residents must wait for the waters to recede to leave or regain access to their properties. During flood events, emergency vehicles are unable to access these homes in a timely manner because of the road closures. The flood events place a strain on sanitary sewer crossings within the area, leading to weakening of and/or damage to lines. The heavy discharge rate of water from these flooding events has also led to stream bank shearing and deterioration.

The City of Bixby has requested FEMA funding under the Hazard Mitigation Grant Program (HMGP) to develop drainage system enhancements and flood control structures to address the recurring flooding in the project area. The City would construct a detention facility, upgrade culvert conveyance to accommodate 100-year flows, elevate existing roadways above the 100-year flood level, construct/update seven sanitary sewer encasements/drop structures, and stabilize stream banks. Specific project components include:

- Constructing a 1.5-acre water detention facility located west of and adjacent to 90th East Avenue,
- Elevating 90th East Avenue and portions of 89th East Avenue and 113th Street above the 100-year flood event,
- Replacing an existing 36-inch reinforced concrete pipe (RCP) culvert with a triple 8-foot x 6-foot reinforced concrete box (RCB) at Basin outlet on 113th Street Bridge,
- Replacing an existing 42-inch RCP culvert with a triple 8-foot x 6-foot RCB culvert at the Basin inlet on 112th Street Bridge,

- Replacing/upgrading sanitary sewer lines and creating seven sanitary sewer encasements/drop structures,
- The creation of an energy dissipation and stilling basin at the 113th Street culvert outflow,
- Stabilizing of stream bank on Fry Creek downstream from 113th Street, and
- Demolishing two houses and removing any associated landscaping or paving.

The project area is located in the City of Bixby, Tulsa County, Oklahoma (Figures 1 and 2), and is comprised of suburban dwellings with associated manicured plots and lawns, interspersed with small areas of trees. A meandering network of paved roadways allows access to the many sub-developments throughout the area. Fry Creek flows through the center of the project area. The proposed 1.5-acre detention facility will require the demolition of an existing residence that will be acquired by the City of Bixby. All material excavated for the construction of the detention facility will be used to raise the surrounding roadways above the 100-year flood level. A second residence to be acquired by the City of Bixby will be cleared for construction of a proposed energy dissipation and stilling basin downstream of the upgraded 113th Street culvert. Existing RCPs will be removed at 89th East Avenue (42-inch RCP) and East 113th Street (36-inch RCP). Seven sewer line encasements/drop structure locations and areas of stream bank stabilization locations are proposed along with the removal and replacement of 5 existing driveway aprons and segments of driveways along the east side of south 90th East Avenue. All project component locations are depicted in Figures 3 through 5 (attached).

URS has been retained by FEMA to prepare an Environmental Assessment for the proposed project. In compliance with the National Environmental Policy Act (NEPA) of 1969, as amended, URS requests that your agency review the proposed project and provide comments and any available information on resources under your agency's jurisdiction within the project area. If you have any questions or need additional information, please contact Brad Burford of URS at (301) 820-3491.

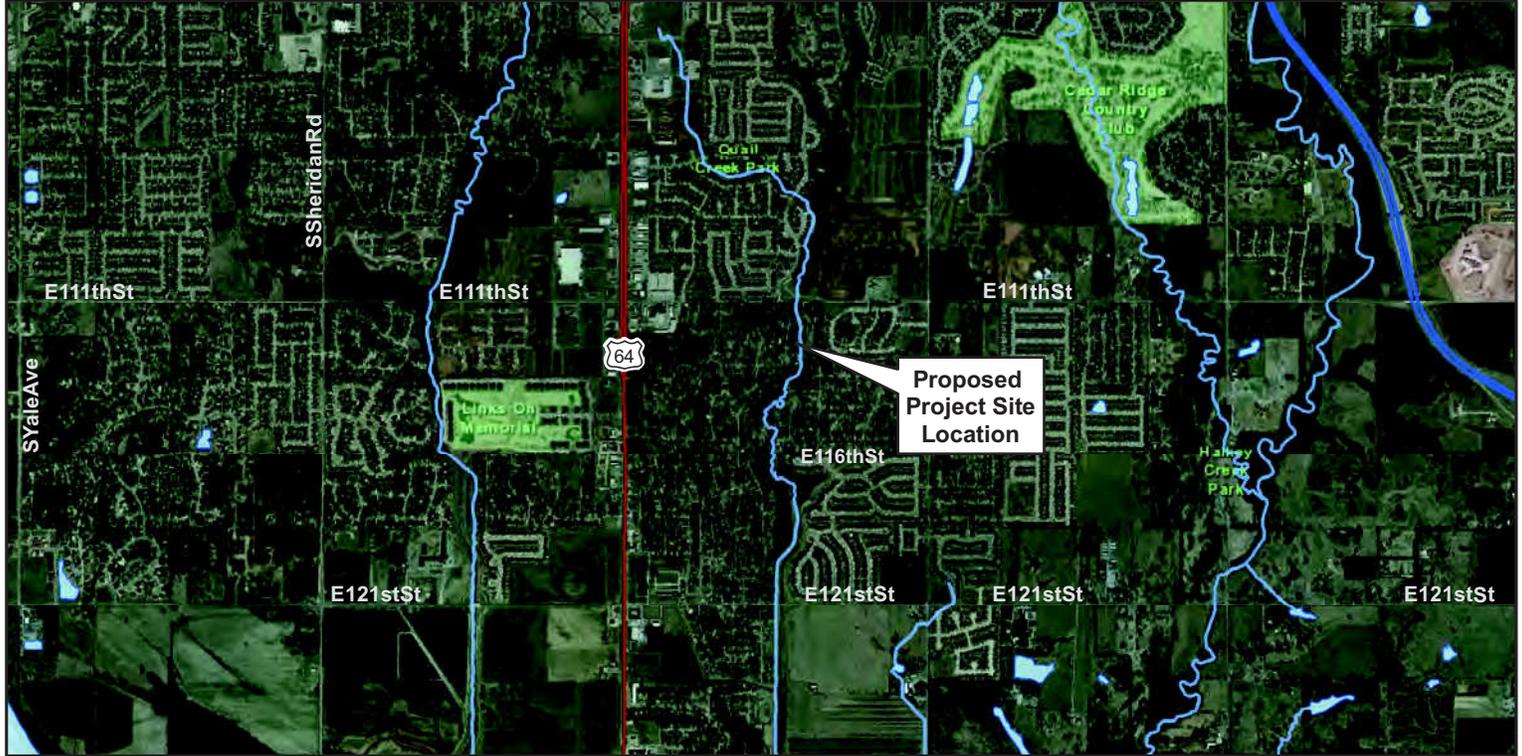
Sincerely,



Brad Burford, AWB®, CWT
URS Group, Inc.

Attachments as noted

cc: Mike Verderosa, URS
Jeffrey Reidenauer, Ph.D., URS



Source: ESRI ArcGIS Online and data partners, including imagery from agencies supplied via the Content Sharing Program



CLIENT		FEMA		TITLE		PROJECT VICINITY				
PROJ		90th Street Drainage Project		 12420 Milestone Center Drive Germantown, MD 20876		PROJ NO		15702509		
APPLICANT		City of Bixby, OK				SCALE		Not to Scale		
REVISION NO						DES BY		JK		
FILE		G:\Projects\Z_Short_Term_Projects\Bixby\MXD		CHK BY		BB		01/03/2012		
								FIGURE		1



Source: Microsoft Corporation - Bing Maps and its data suppliers, 2009

Legend

- Proposed Project Area
- Proposed Drop Structure/Sanitary Sewer Encasement
- Stream Bank Restoration

N

CLIENT		FEMA		TITLE		PROJECT AREA			
PROJ		90th Street Drainage Project		 12420 Milestone Center Drive Germantown, MD 20876		PROJ NO		15702509	
APPLICANT		City of Bixby, OK				FIGURE		2	
REVISION NO		SCALE				DES BY		JK	01/03/2012
FILE		G:\Projects\Z_Short_Term_Projects\Bixby\MXD		CHK BY		BB		01/03/2012	

Burford, Brad

From: David_Martinez@fws.gov
Sent: Friday, February 10, 2012 3:29 PM
To: Burford, Brad
Subject: Request for Project Review: 90th Street Drainage Project, Bixby, OK

Mr. Brad Burford
URS Group, Inc.
12420 Milestone Center Drive, Suite 150
Germantown, MD 20876

Dear Mr. Burford

The U.S. Fish and Wildlife Service (Service) has received your request to review the subject project. Based on an initial review of the submitted materials, the Service does not yet have all information needed to complete a review and provide the comments you requested on the project.

I would like to suggest that you consider resubmitting the review request through the Service's online project review system. We launched this system over the last several months and are now receiving a majority of review requests through this system. The system offers advantages by being clearer in the range of project information needed to complete a review and also in a faster average response time we are able to provide for project proponents. Most proponents have found the online process easy to complete, and staff here are happy to provide assistance with the system, should you have questions.

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I encourage you to try submitting the Bixby project through the Service's new online system, and to use this for future projects submitted by URS as well.

David Martinez
Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
Oklahoma Ecological Services Field Office
9014 E. 21st Street
Tulsa, OK 74129

918-382-4508 (office voice)
918-581-7467 (fax)
david_martinez@fws.gov (e-mail)

Burford, Brad

From: Burford, Brad
Sent: Friday, February 10, 2012 4:49 PM
To: 'OKProjectReview@fws.gov'
Subject: Project 02EKOK00-2012-SLI-0246
Attachments: Combined Package.pdf

Dear Mr. Martinez,

Please find attached the requested documents as per your email dated February 10, 2012.

Bradley B. Burford, AWB[®], CWT

URS Corporation

12420 Milestone Center Drive

Suite 150

Germantown, MD 20876

(Office): 301-820-3000

(Direct): 301-820-3491

(Fax): 301-820-3009

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United States Department of Interior
Fish and Wildlife Service

Project name: Bixby, OK 90th East Ave Drainage Project

Official Species-list: *Bixby, OK 90th East Ave Drainage Project*

Oklahoma Ecological Services Field Office

Following is an official U.S. Fish and Wildlife Service species-list from the Oklahoma Ecological Services Field Office. The species-list identifies listed and proposed species and designated and proposed critical habitat that may be affected by the project "Bixby, OK 90th East Ave Drainage Project". You may use this list to meet the requirements of section 7(c) of the Endangered Species Act of 1973, as amended (ESA).

This species-list has been generated by the Service's on-line Information, Planning, and Conservation (IPaC) decision support system based on project type and location information you provided on February 10, 2012, 1:21 PM. This information is summarized below.

Please reference our tracking number, 02EKOK00-2012-SLI-0246, in future reference to this project to assist in expediting the process.

Newer information based on updated surveys, changes in the abundance and distribution of listed species, changed habitat conditions, or other factors could change this list. Please feel free to contact the office(s) identified below if you need more current information or assistance regarding the potential presence of federally proposed, listed, or candidate species, or proposed or designated critical habitat. Please note that under the ESA, a species-list is valid for 90 days. Therefore, the Service recommends that you visit the IPaC site at regular intervals during project planning and implementation for updates to species-lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive this list. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

This list below only addresses federally proposed, listed, or candidate species and federally designated critical habitat. Please contact the appropriate State agencies for information regarding State species of special designation. Also, please feel free to contact the office(s) identified below if you would like information on other important trust resources (such as migratory birds) in your project area.

From:

Brad Burford AWB, CWT
URS Group, Inc.
12420 Milestone Center Drive, Suite 150
Germantown, MD 20876
Office: (301)-820-3491 Fax: (301)-820-3009 Email: brad.burford@urs.com

To:

U.S. Fish and Wildlife Service
Oklahoma Ecological Services Field Office
9014 E 21st Street
Tulsa, Oklahoma 74129

February 13, 2012

Re:

Online Project Review Request
Bixby, OK 90th East Avenue Drainage Project, Tulsa County

We have reviewed the referenced project using the Oklahoma Ecological Services Field Office's online project review process and have followed all guidance and instructions in completing the review. We completed our review on February 10, 2012 and are submitting our project review package in accordance with the instructions for further review.

Our proposed action consists of:

See attached project description.

The location of the project and the action area are identified on the enclosed map

See Figures 1 and 2 attached.

The project is expected to be completed Start Date: Will commence upon FEMA grant approval. E

This project review is needed for

The City of Bixby has requested FEMA funding under the Hazard Mitigation Grant Program

The enclosed project review package provides the information about the species and critical habitat considered in our review, and the species conclusions table included in the package identifies our determinations for the resources that may be affected by the project.

For additional information, please contact Brad Burford at the address listed above.

Sincerely,

Brad Burford
Environmental Scientist

Enclosures:

1) ENTIRE PROJECT REVIEW PACKAGE:

- Species Conclusion Table
- IPaC Species List and Action Area map
- This letter (Online Project Review Request Letter)
- (Optional) Additional maps

2) Other relevant project data/documents



United States Department of Interior
Fish and Wildlife Service

Project name: Bixby, OK 90th East Ave Drainage Project

This Species-list document is provided by:

OKLAHOMA ECOLOGICAL SERVICES FIELD OFFICE

9014 EAST 21ST STREET

TULSA, OK 74129

(918) 581-7458

<http://www.fws.gov/southwest/es/Oklahoma/>

TAILS consultation code: 02EKOK00-2012-SLI-0246

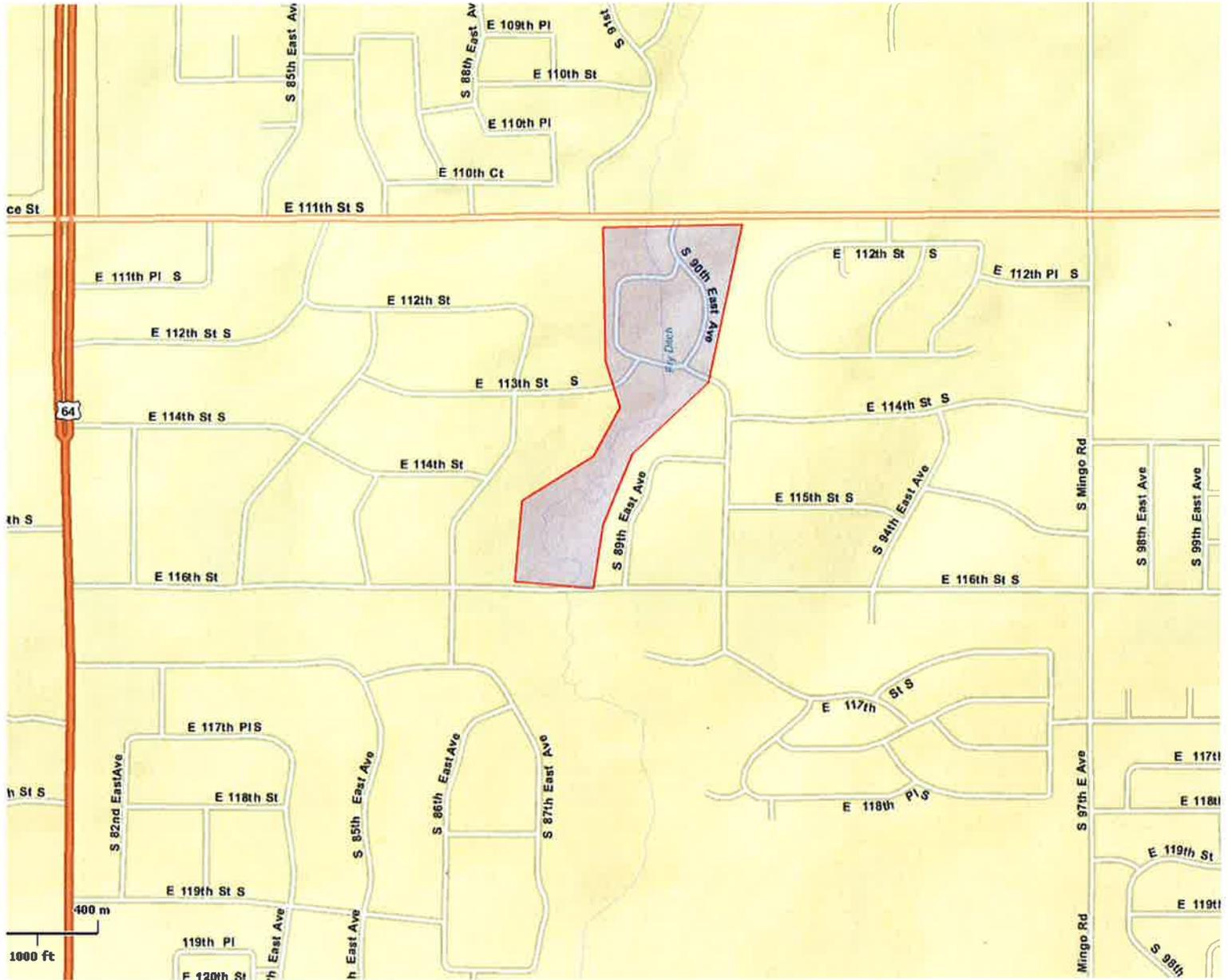
Project type: Land - Drainage



United States Department of Interior
Fish and Wildlife Service

Project name: Bixby, OK 90th East Ave Drainage Project

Project location map:



Project coordinates: MULTIPOLYGON (((-95.8771355 36.0026396, -95.8746893 36.0026825, -95.8752901 35.999893, -95.8766205 35.9986485, -95.8771355 35.9974039, -95.8773071 35.9962881, -95.8786804 35.9964169, -95.8785517 35.9978331, -95.8773071 35.9986056, -95.8768351 35.9994639, -95.8770926 36.0002793, -95.8771355 36.0026396)))

Project counties: Tulsa, OK



United States Department of Interior
Fish and Wildlife Service

Project name: Bixby, OK 90th East Ave Drainage Project

Endangered Species Act Species-list

American Burying beetle (*Nicrophorus americanus*)

Listing Status: Endangered

Least tern (*Sterna antillarum*)

Population: interior pop.

Listing Status: Endangered

Piping Plover (*Charadrius melodus*)

Population: except Great Lakes watershed

Listing Status: Threatened

Whooping crane (*Grus americana*)

Population: except where EXPN

Listing Status: Endangered



U.S. Fish and Wildlife Service

Natural Resources of Concern

This resource list is to be used for planning purposes only — it is not an official species-list.

Endangered Species Act species-list information for your project is available online and listed below for the following FWS Field Offices:

OKLAHOMA ECOLOGICAL SERVICES FIELD OFFICE
9014 EAST 21ST STREET
TULSA, OK 74129
(918) 581-7458
<http://www.fws.gov/southwest/es/Oklahoma/>

Project Name:

Bixby, OK 90th East Avenue Drainage Project



Natural Resources of Concern

Endangered Species Act Species-list

There are a total of 4 species in your species-list

Species that may be affected by your project:

Birds			
Least tern (<i>Sterna antillarum</i>) Population: interior pop.	Endangered	species info	Oklahoma Ecological Services Field Office
Piping Plover (<i>Charadrius melodus</i>) Population: except Great Lakes watershed	Threatened	species info	Oklahoma Ecological Services Field Office
Whooping crane (<i>Grus americana</i>) Population: except where EXPN	Endangered	species info	Oklahoma Ecological Services Field Office
Insects			
American Burying beetle (<i>Nicrophorus americanus</i>)	Endangered	species info	Oklahoma Ecological Services Field Office

FWS National Wildlife Refuges

There are no refuges found within the vicinity of your project.

FWS Migratory Birds

Not yet available through IPaC.

FWS Delineated Wetlands

Not yet available through IPaC.

Species Conclusions Table

Project Name: Bixby, OK 90th East Avenue Drainage Project

Date: 02/10/2012

Species / Resource Name	Conclusion	ESA Section 7	Notes / Documentation
American Burying Beetle (<i>Nicrophorus americanus</i>)	No potential habitat present.	No effect	This species requires tall grass prairies, woodlands, and forests. No such areas exist in the project area. The project is located in an area of suburban dwellings with associated manicured plots and lawns, interspersed with small areas of trees. Activities will be conducted in this landscape as well as in the Fry drainage ditch.
Least Tern (<i>Sterna antillarum</i>)	No potential habitat present.	No effect	This species uses sparsely vegetated sandy beach areas along major rivers and coastal watersheds. The project is located in an area of suburban dwellings with associated manicured plots and lawns, interspersed with small areas of trees. Activities will be conducted in this landscape as well as in the Fry drainage ditch.
Piping Plover (<i>Charadrius melodus</i>)	No potential habitat present.	No effect	This species uses sparsely vegetated sandy beach areas along major rivers and coastal watersheds. The project is located in an area of suburban dwellings with associated manicured plots and lawns, interspersed with small areas of trees. Activities will be conducted in this landscape as well as in the Fry drainage ditch.
Whooping Crane (<i>Grus Americana</i>)	No potential habitat present.	No effect	This species requires freshwater wetlands, and coastal brackish wetlands. No such areas are present within the project area. The project is located in an area of suburban dwellings with associated manicured plots and lawns, interspersed with small areas of trees. Activities will be conducted in this landscape as well as in the Fry drainage ditch.

Remember to save a copy of this form once you have filled it out. This table is part of your project review package.

Project Description

The City of Bixby, Oklahoma, has been experiencing flooding problems along 90th East Avenue due to insufficient roadway heights and culvert capacities along Fry Creek. During rain events exceeding 1 inch, Fry Creek consistently floods – leaving 90th East Avenue completely inundated and causing roadway overtopping at 89th East Avenue and East 113th Street. Residences and sanitary sewer crossings in this area are affected by flood waters to varying degrees depending on the amount and rate of precipitation.

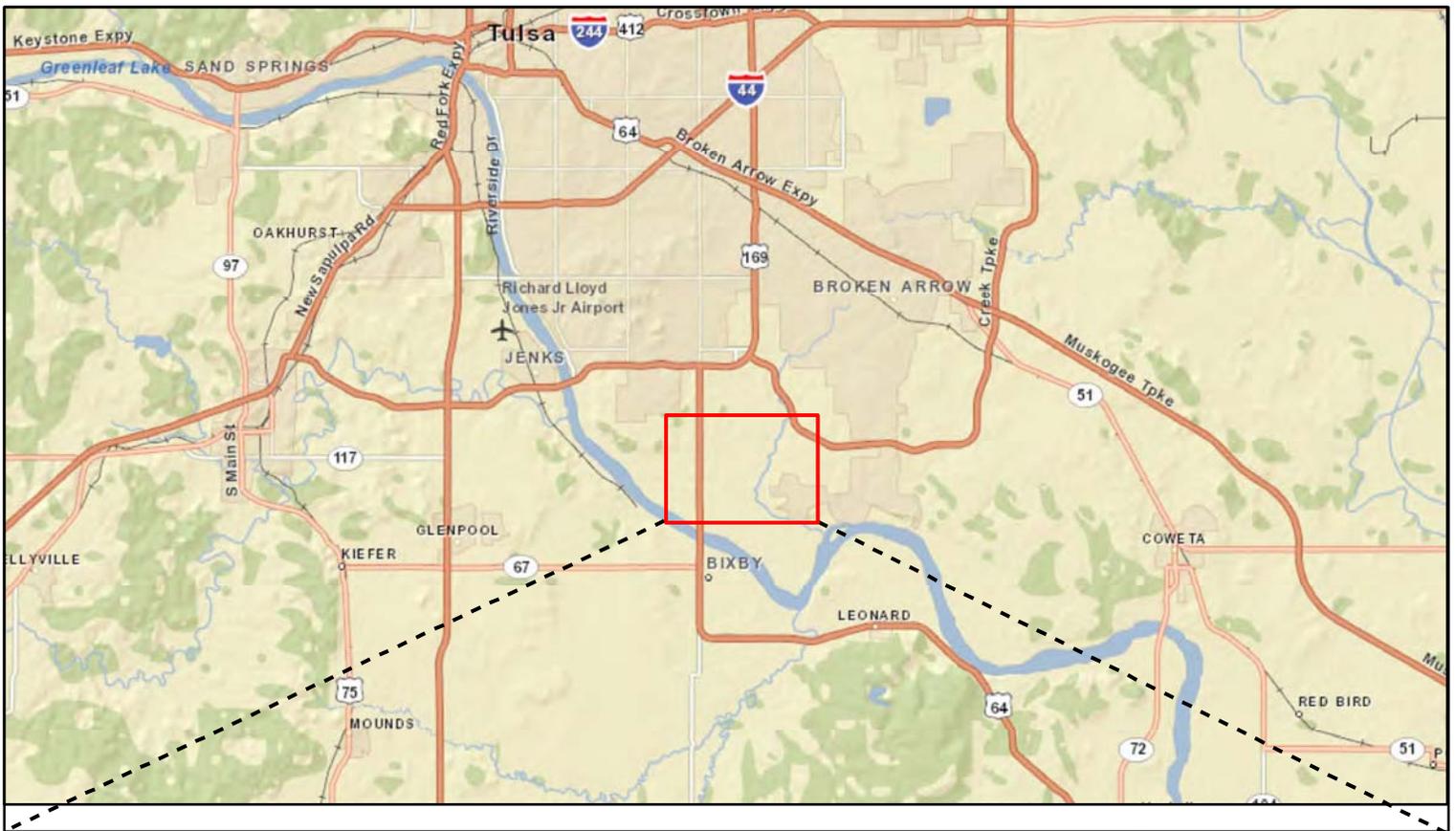
During flooding events, area motorists who use 90th East Avenue to access main arterial streets are cut off. There are seven residences whose only access becomes completely inaccessible during flood events; residents must wait for the waters to recede to leave or regain access to their properties. During flood events, emergency vehicles are unable to access these homes in a timely manner because of the road closures. The flood events place a strain on sanitary sewer crossings within the area, leading to weakening of and/or damage to lines. The heavy discharge rate of water from these flooding events has also led to stream bank shearing and deterioration.

The City of Bixby has requested FEMA funding under the Hazard Mitigation Grant Program (HMGP) to develop drainage system enhancements and flood control structures to address the recurring flooding in the project area. The City would construct a detention facility, upgrade culvert conveyance to accommodate 100-year flows, elevate existing roadways above the 100-year flood level, construct/update seven sanitary sewer encasements/drop structures, and stabilize stream banks. Specific project components include:

- Constructing a 1.5-acre water detention facility located west of and adjacent to 90th East Avenue,
- Elevating 90th East Avenue and portions of 89th East Avenue and East 113th Street above the 100-year flood event,
- Replacing an existing 36-inch reinforced concrete pipe (RCP) culvert with a triple 8-foot x 6-foot reinforced concrete box (RCB) at Basin outlet on East 113th Street Bridge,
- Replacing an existing 42-inch RCP culvert with a triple 8-foot x 6-foot RCB culvert at the Basin inlet on 89th East Avenue Street Bridge,
- Replacing/upgrading sanitary sewer lines and creating seven sanitary sewer encasements/drop structures,
- The creation of a 0.11-acre energy dissipation area at the East 113th Street culvert outflow,
- Stabilizing of stream bank within sewer line right-of-ways, and
- Demolishing two houses and removing any associated landscaping or paving.

The project area is located in the City of Bixby, Tulsa County, Oklahoma (Figures 1 and 2 attached), and is comprised of suburban dwellings with associated manicured plots and lawns, interspersed with small areas of trees. A meandering network of paved roadways allows access to the many sub-developments throughout the area. Fry Creek flows through the center of the project area. The proposed 1.5-acre detention facility will require the demolition of an existing residence that will be acquired by the City of Bixby. All material excavated for the construction of the detention facility will be used to raise the surrounding roadways above the 100-year flood level. A second residence to be acquired by the City of Bixby will be cleared for construction of a proposed 0.11-acre energy dissipation area downstream of the upgraded 113th Street culvert. Existing RCPs will be removed at

89th East Avenue (42-inch RCP) and East 113th Street (36-inch RCP). Seven sewer line encasements/drop structure and related stream bank stabilization locations are proposed along with the removal and replacement of 5 existing driveway aprons and segments of driveways along the east side of south 90th East Avenue. All project component locations are depicted in Figure 2 (attached).



Source: ESRI ArcGIS Online and data partners, including imagery from agencies supplied via the Content Sharing Program



CLIENT		FEMA		TITLE		PROJECT VICINITY				
PROJ		90th Street Drainage Project		 12420 Milestone Center Drive Germantown, MD 20876		PROJ NO		15702509		
APPLICANT		City of Bixby, OK				SCALE		FIGURE		1
REVISION NO		Not to Scale				DES BY		JK		01/03/2012
FILE		G:\Projects\Z_Short_Term_Projects\Bixby\MXD		CHK BY		BB		01/03/2012		



Legend

- Proposed Project Area
- Proposed Drop Structure/Sanitary Sewer Encasement

Source: Microsoft Corporation - Bing Maps and its data suppliers, 2009

CLIENT		FEMA		TITLE		PROJECT AREA			
PROJ		90th Street Drainage Project		12420 Milestone Center Drive Germantown, MD 20876		PROJ NO		15702509	
APPLICANT		City of Bixby, OK				FIGURE		2	
REVISION NO		SCALE	0 150 300 600 Feet			DES BY		JK	01/03/2012
FILE		G:\Projects\Z_Short_Term_Projects\Bixby\MXD		CHK BY		BB		01/03/2012	

Burford, Brad

From: FWSDDevelopment@fws.gov
Sent: Friday, February 10, 2012 5:18 PM
To: Burford, Brad
Subject: Thank you for contacting the US Fish and Wildlife Service

Thank you for contacting us at the US Fish and Wildlife Service. This response confirms that we have received your submission and this email is your return receipt. If the OKESFO determines that the package is not complete, or additional coordination is necessary, we will contact your office.

If you have submitted an online concurrence letter, please save a copy of this return receipt for future reference. Please allow 35 business days from this return receipt's date for us to review your information. If after 35 business days we have not contacted your office, consider your section 7 consultation complete.

Burford, Brad

From: Chris_Tanner@fws.gov
Sent: Tuesday, March 13, 2012 1:48 PM
To: Burford, Brad
Subject: 90th St Drainage Project Bixby, OK

Mr. Burford,

The U.S. Fish and Wildlife Service (Service) received your letter dated February 13, 2012, requesting concurrence with your "no effect" determination on impacts to federally-listed threatened or endangered species as a result of the 90th Street Drainage Project in Bixby, Oklahoma. Since URS has determined that there is "no effect" to Federally-listed threatened or endangered species, no concurrence by the Service is required. Please maintain a complete record of all materials supporting your "no effect" determination as it does not provide exemption from section 9 of the ESA (which prohibits unauthorized take of federally-listed species).

The Service recommends that URS contact the U.S. Army Corps of Engineers (ACOE) to determine if permits are required in regards to this project. Additionally, the Service would like to be informed if any changes to the submitted project occur.

If you have any other questions or concerns regarding this matter please feel free to contact me directly at the number listed below.

Christopher D. Tanner
Fish & Wildlife Biologist
U.S. Fish and Wildlife Services
Oklahoma Ecological Services Field Office
9014 E. 21st Street
Tulsa, OK 74129

Phone: (918) 382-4517
Fax: (918) 581-7467
Email: Chris_Tanner@fws.gov

Oklahoma Department of Wildlife Conservation Correspondence



January 18, 2012

Mr. William Ray
Oklahoma Department of Wildlife Conservation
P.O. Box 53465
Oklahoma City, OK 73152

Re: Request for Project Review –90th Street Drainage Project, Bixby, Oklahoma

Dear Mr. Ray:

The City of Bixby, Oklahoma, has been experiencing flooding problems along 90th East Avenue due to insufficient roadway heights and culvert capacities along Fry Creek. During rain events exceeding 1 inch, Fry Creek consistently floods – leaving 90th East Avenue completely inundated and causing roadway overtopping at 89th East Avenue and 113th Street. Residences and sanitary sewer crossings in this area are affected by flood waters to varying degrees depending on the amount and rate of precipitation.

During flooding events, area motorists who use 90th East Avenue to access main arterial streets are cut off. There are seven residences whose only access becomes completely inaccessible during flood events; residents must wait for the waters to recede to leave or regain access to their properties. During flood events, emergency vehicles are unable to access these homes in a timely manner because of the road closures. The flood events place a strain on sanitary sewer crossings within the area, leading to weakening of and/or damage to lines. The heavy discharge rate of water from these flooding events has also led to stream bank shearing and deterioration.

The City of Bixby has requested FEMA funding under the Hazard Mitigation Grant Program (HMGP) to develop drainage system enhancements and flood control structures to address the recurring flooding in the project area. The City would construct a detention facility, upgrade culvert conveyance to accommodate 100-year flows, elevate existing roadways above the 100-year flood level, construct/update seven sanitary sewer encasements/drop structures, and stabilize stream banks. Specific project components include:

- Constructing a 1.5-acre water detention facility located west of and adjacent to 90th East Avenue,
- Elevating 90th East Avenue and portions of 89th East Avenue and 113th Street above the 100-year flood event,
- Replacing an existing 36-inch reinforced concrete pipe (RCP) culvert with a triple 8-foot x 6-foot reinforced concrete box (RCB) at Basin outlet on 113th Street Bridge,
- Replacing an existing 42-inch RCP culvert with a triple 8-foot x 6-foot RCB culvert at the Basin inlet on 112th Street Bridge,

- Replacing/upgrading sanitary sewer lines and creating seven sanitary sewer encasements/drop structures,
- The creation of an energy dissipation and stilling basin at the 113th Street culvert outflow,
- Stabilizing of stream bank on Fry Creek downstream from 113th Street, and
- Demolishing two houses and removing any associated landscaping or paving.

The project area is located in the City of Bixby, Tulsa County, Oklahoma (Figures 1 and 2), and is comprised of suburban dwellings with associated manicured plots and lawns, interspersed with small areas of trees. A meandering network of paved roadways allows access to the many sub-developments throughout the area. Fry Creek flows through the center of the project area. The proposed 1.5-acre detention facility will require the demolition of an existing residence that will be acquired by the City of Bixby. All material excavated for the construction of the detention facility will be used to raise the surrounding roadways above the 100-year flood level. A second residence to be acquired by the City of Bixby will be cleared for construction of a proposed energy dissipation and stilling basin downstream of the upgraded 113th Street culvert. Existing RCPs will be removed at 89th East Avenue (42-inch RCP) and East 113th Street (36-inch RCP). Seven sewer line encasements/drop structure locations and areas of stream bank stabilization locations are proposed along with the removal and replacement of 5 existing driveway aprons and segments of driveways along the east side of south 90th East Avenue. All project component locations are depicted in Figures 3 through 5 (attached).

URS has been retained by FEMA to prepare an Environmental Assessment for the proposed project. In compliance with the National Environmental Policy Act (NEPA) of 1969, as amended, URS requests that your agency review the proposed project and provide comments and any available information on resources under your agency's jurisdiction within the project area. If you have any questions or need additional information, please contact Brad Burford of URS at (301) 820-3491.

Sincerely,



Brad Burford, AWB®, CWT
URS Group, Inc.

Attachments as noted

cc: Mike Verderosa, URS
Jeffrey Reidenauer, Ph.D., URS



Source: ESRI ArcGIS Online and data partners, including imagery from agencies supplied via the Content Sharing Program



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APPLICANT		City of Bixby, OK				SCALE		Not to Scale		
REVISION NO						DES BY		JK		
FILE		G:\Projects\Z_Short_Term_Projects\Bixby\MXD		CHK BY		BB		01/03/2012		
								FIGURE		1



Source: Microsoft Corporation - Bing Maps and its data suppliers, 2009

Legend

-  Proposed Project Area
-  Proposed Drop Structure/Sanitary Sewer Encasement
-  Stream Bank Restoration



CLIENT		FEMA		TITLE		PROJECT AREA		
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APPLICANT		City of Bixby, OK				FIGURE		2
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			CHK BY	BB	01/03/2012			