



Federal Emergency Management Agency

Washington, D.C. 20472

May 24, 2013

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

The Honorable Daniel A. Corbin
Mayor, City of Killeen
P.O. Box 1329
Killeen, TX 76540

IN REPLY REFER TO:

Case No.: 13-06-2244P
Community Name: City of Killeen, TX
Community No.: 480031
Effective Date of
This Revision: **October 7, 2013**

Dear Mayor Corbin:

The Flood Insurance Study Report and Flood Insurance Rate Map for your community have been revised by this Letter of Map Revision (LOMR). Please use the enclosed annotated map panel revised by this LOMR for floodplain management purposes and for all flood insurance policies and renewals issued in your community.

Additional documents are enclosed that provide information regarding this LOMR. Please see the List of Enclosures below to determine which documents are included. Other attachments specific to this request may be included as referenced in the Determination Document. If you have any questions regarding floodplain management regulations for your community or the National Flood Insurance Program (NFIP) in general, please contact the Consultation Coordination Officer for your community. If you have any technical questions regarding this LOMR, please contact the Director, Mitigation Division of the Department of Homeland Security's Federal Emergency Management Agency (FEMA) in Denton, Texas, at (940) 898-5127, or the FEMA Map Information eXchange (FMIX) toll free at 1-877-336-2627 (1-877-FEMA MAP). Additional information about the NFIP is available on our Web site at <http://www.fema.gov/business/nfip>.

Sincerely,

Stuart W. Rooney, CFM, PMP, Program Specialist
Engineering Management Branch
Federal Insurance and Mitigation Administration

For: Luis Rodriguez, P.E., Chief
Engineering Management Branch
Federal Insurance and Mitigation Administration

List of Enclosures:

Letter of Map Revision Determination Document
Annotated Flood Insurance Rate Map
Annotated Flood Insurance Study Report

cc: Mr. Earl Abbott, CFM
Floodplain Administrator
City of Killeen

Mr. Daniel Lee Harris, P.E., CFM
Halff Associates, Inc.



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LETTER OF MAP REVISION DETERMINATION DOCUMENT

COMMUNITY AND REVISION INFORMATION		PROJECT DESCRIPTION	BASIS OF REQUEST
COMMUNITY	City of Killeen Bell County Texas	BRIDGE CHANNELIZATION	BASE MAP CHANGES FLOODWAY HYDRAULIC ANALYSIS HYDROLOGIC ANALYSIS NEW TOPOGRAPHIC DATA
	COMMUNITY NO.: 480031		
IDENTIFIER	Little Nolan / Trimmier Channelization	APPROXIMATE LATITUDE AND LONGITUDE: 31.086, -97.704 SOURCE: Precision Mapping Streets DATUM: NAD 83	
ANNOTATED MAPPING ENCLOSURES		ANNOTATED STUDY ENCLOSURES	
TYPE: FIRM* NO.: 48027C0280 E DATE: September 26, 2008		DATE OF EFFECTIVE FLOOD INSURANCE STUDY: September 26, 2008 PROFILES: 272P, 273P, 482P AND 483P FLOODWAY DATA TABLE: 6 SUMMARY OF DISCHARGES TABLE: 3	

Enclosures reflect changes to flooding sources affected by this revision.

* FIRM - Flood Insurance Rate Map; ** FBFM - Flood Boundary and Floodway Map; *** FHBM - Flood Hazard Boundary Map

FLOODING SOURCES AND REVISED REACHES

See Page 2 for Additional Flooding Sources

Trimmier Ditch - from confluence with Little Nolan Creek to approximately 350 feet upstream of South W. S. Young Drive

Little Nolan Creek - approximately 50 feet downstream of FM 2410 (Martin Luther King Junior Boulevard) to approximately 150 feet upstream of U.S. Highway 190

SUMMARY OF REVISIONS

Flooding Source	Effective Flooding	Revised Flooding	Increases	Decreases
Trimmier Ditch	Zone AE	Zone AE	YES	YES
	Floodway	Floodway	YES	YES
	BFEs*	BFEs	YES	YES
	Zone X (shaded)	Zone X (shaded)	YES	YES
Little Nolan Creek	Zone AE	Zone AE	YES	YES

* BFEs - Base Flood Elevations

DETERMINATION

This document provides the determination from the Department of Homeland Security's Federal Emergency Management Agency (FEMA) regarding a request for a Letter of Map Revision (LOMR) for the area described above. Using the information submitted, we have determined that a revision to the flood hazards depicted in the Flood Insurance Study (FIS) report and/or National Flood Insurance Program (NFIP) map is warranted. This document revises the effective NFIP map, as indicated in the attached documentation. Please use the enclosed annotated map panels revised by this LOMR for floodplain management purposes and for all flood insurance policies and renewals in your community.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Information eXchange (FMIX) toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the Engineering Library, 847 South Pickett Street, Alexandria, VA 22304-4605. Additional Information about the NFIP is available on our Web site at <http://www.fema.gov/business/nfip>.


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13-06-2244P
102-I-A-C



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**LETTER OF MAP REVISION
DETERMINATION DOCUMENT (CONTINUED)**

OTHER FLOODING SOURCES AFFECTED BY THIS REVISION

FLOODING SOURCE AND REVISED REACH

Little Nolan Creek – approximately 50 feet downstream of FM 2410 (Martin Luther King Junior Boulevard) to approximately 150 feet upstream of U.S. Highway 190

SUMMARY OF REVISIONS

Flooding Source	Effective Flooding	Revised Flooding	Increases	Decreases
Little Nolan Creek	Floodway	Floodway	YES	YES
	BFEs*	BFEs	YES	YES
	Zone X (shaded)	Zone X (shaded)	YES	YES

* BFEs - Base Flood Elevations

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Information eXchange (FMIX) toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the Engineering Library, 847 South Pickett Street, Alexandria, VA 22304-4605. Additional Information about the NFIP is available on our Web site at <http://www.fema.gov/business/nfip>.

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LETTER OF MAP REVISION DETERMINATION DOCUMENT (CONTINUED)

COMMUNITY INFORMATION

APPLICABLE NFIP REGULATIONS/COMMUNITY OBLIGATION

We have made this determination pursuant to Section 206 of the Flood Disaster Protection Act of 1973 (P.L. 93-234) and in accordance with the National Flood Insurance Act of 1968, as amended (Title XIII of the Housing and Urban Development Act of 1968, P.L. 90-448), 42 U.S.C. 4001-4128, and 44 CFR Part 65. Pursuant to Section 1361 of the National Flood Insurance Act of 1968, as amended, communities participating in the NFIP are required to adopt and enforce floodplain management regulations that meet or exceed NFIP criteria. These criteria, including adoption of the FIS report and FIRM, and the modifications made by this LOMR, are the minimum requirements for continued NFIP participation and do not supersede more stringent State/Commonwealth or local requirements to which the regulations apply.

We provide the floodway designation to your community as a tool to regulate floodplain development. Therefore, the floodway revision we have described in this letter, while acceptable to us, must also be acceptable to your community and adopted by appropriate community action, as specified in Paragraph 60.3(d) of the NFIP regulations.

NFIP regulations Subparagraph 60.3(b)(7) requires communities to ensure that the flood-carrying capacity within the altered or relocated portion of any watercourse is maintained. This provision is incorporated into your community's existing floodplain management ordinances; therefore, responsibility for maintenance of the altered or relocated watercourse, including any related appurtenances such as bridges, culverts, and other drainage structures, rests with your community. We may request that your community submit a description and schedule of maintenance activities necessary to ensure this requirement.

COMMUNITY REMINDERS

We based this determination on the 1-percent-annual-chance discharges computed in the submitted hydrologic model. Future development of projects upstream could cause increased discharges, which could cause increased flood hazards. A comprehensive restudy of your community's flood hazards would consider the cumulative effects of development on discharges and could, therefore, indicate that greater flood hazards exist in this area.

Your community must regulate all proposed floodplain development and ensure that any permits required by Federal or State/Commonwealth law have been obtained. State/Commonwealth or community officials, based on knowledge of local conditions and in the interest of safety, may set higher standards for construction or may limit development in floodplain areas. If your State/Commonwealth or community has adopted more restrictive or comprehensive floodplain management criteria, those criteria take precedence over the minimum NFIP requirements.

We will not print and distribute this LOMR to primary users, such as local insurance agents or mortgage lenders; instead, the community will serve as a repository for the new data. We encourage you to disseminate the information in this LOMR by preparing a news release for publication in your community's newspaper that describes the revision and explains how your community will provide the data and help interpret the NFIP maps. In that way, interested persons, such as property owners, insurance agents, and mortgage lenders, can benefit from the information.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Information eXchange (FMIX) toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the Engineering Library, 847 South Pickett Street, Alexandria, VA 22304-4605. Additional Information about the NFIP is available on our Web site at <http://www.fema.gov/business/nfip>.

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**LETTER OF MAP REVISION
DETERMINATION DOCUMENT (CONTINUED)**

We have designated a Consultation Coordination Officer (CCO) to assist your community. The CCO will be the primary liaison between your community and FEMA. For information regarding your CCO, please contact:

Mr. Frank Pagano
Director, Mitigation Division
Federal Emergency Management Agency, Region VI
Federal Regional Center, Room 206
800 North Loop 288
Denton, TX 76209
(940) 898-5127

STATUS OF THE COMMUNITY NFIP MAPS

We will not physically revise and republish the FIRM and FIS report for your community to reflect the modifications made by this LOMR at this time. When changes to the previously cited FIRM panel and FIS report warrant physical revision and republication in the future, we will incorporate the modifications made by this LOMR at that time.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Information eXchange (FMIX) toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the Engineering Library, 847 South Pickett Street, Alexandria, VA 22304-4605. Additional Information about the NFIP is available on our Web site at <http://www.fema.gov/business/nfip>.

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LETTER OF MAP REVISION DETERMINATION DOCUMENT (CONTINUED)

PUBLIC NOTIFICATION OF REVISION

A notice of changes will be published in the *Federal Register*. This information also will be published in your local newspaper on or about the dates listed below and through FEMA's Flood Hazard Mapping Web site at https://www.floodmaps.fema.gov/fhm/Scripts/bfe_main.asp.

LOCAL NEWSPAPER

Name: *The Killeen Daily Herald*
Dates: 05/31/2013 and 06/07/2013

Within 90 days of the second publication in the local newspaper, a citizen may request that we reconsider this determination. Any request for reconsideration must be based on scientific or technical data. Therefore, this letter will be effective only after the 90-day appeal period has elapsed and we have resolved any appeals that we receive during this appeal period. Until this LOMR is effective, the revised BFEs presented in this LOMR may be changed.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Information eXchange (FMIX) toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the Engineering Library, 847 South Pickett Street, Alexandria, VA 22304-4605. Additional Information about the NFIP is available on our Web site at <http://www.fema.gov/business/nfip>.

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13-06-2244P
102-I-A-C

TABLE 3 – SUMMARY OF DISCHARGES (continued)

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (sq. mile)	PEAK DISCHARGES (cfs)			
		10% Annual Chance	2 % Annual Chance	1% Annual Chance	0.2% Annual Chance
LITTLE ELM CREEK (continued)					
Old Highway 81	3.70	1,615	2,537	2,969	3,884
Brewster Rd.	2.10	1,036	1,639	1,928	2,565
LITTLE ELM CREEK TRIBUTARY NO. 1					
Cross Section A	7.27	1,794	2,903	3,489	4,831
Cross Section F	4.91	1,359	2,186	2,620	3,599
Bob White Rd.	3.17	1,055	1,729	2,055	2,754
Cross Section K	2.28	995	1,594	1,883	2,522
Cross Section L	1.88	813	1,299	1,536	2,067
SE HK Dodgen Loop	1.48	640	1,018	1,203	1,622
EH Avenue	0.79	440	686	805	1,068
State Hwy 53	0.51	375	585	685	903
16 th Street	0.21	176	274	321	424
LITTLE ELM CREEK TRIBUTARY NO. 2					
Cross Section A	1.48	960	1,490	1,800	2,380
Cross Section B	1.44	930	1,420	1,730	2,300
Pegasus Dr.	1.32	827	1,298	1,532	2,035
Cross Section F	1.07	675	1,051	1,240	1,652
Cross Section H	0.83	540	821	964	1,281
Center Street	0.37	269	426	501	667
LITTLE NOLAN CREEK					
Above Nolan Creek confluence	11.06	11,500	16,420	18,840	23,780
Downstream of Business U.S. Hwy 190	10.65	11,900	16,980	19,440	24,500
Downstream of Twin Creek Dr.	9.64	11,500	16,300	18,600	23,550
At Trimmier Road Ditch confluence	9.18	10,810	15,330	17,580	22,140
Downstream of West Bound U.S. Hwy 190 Service Rd.	4.93	5,220	7,630	8,870	11,390
180 feet downstream of Old Florence Ditch confluence	4.25	4,870	7,220	8,400	10,770
Above confluence with Old Florence Ditch	2.51	3,050	4,540	5,280	6,770
Downstream of Onion Rd.	2.07	2,810	4,150	4,830	6,170
Downstream of Detention Structure	0.86	1,330	1,930	2,220	2,790
West Trimmier Road	0.67	1,150	1,630	1,870	2,350

REVISED DATA

REVISED BY LOMR
EFFECTIVE: April 22, 2013

¹Current effective discharges upstream of Onion Rd. are from LOMR 05-06-0514P. All other discharges are from new study.

TABLE 3 – SUMMARY OF DISCHARGES (continued)

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (sq. mile)	PEAK DISCHARGES (cfs)			
		10% Annual Chance	2 % Annual Chance	1% Annual Chance	0.2% Annual Chance
TRIMMIER CREEK					
2.44 miles downstream of East Trimmier Rd.	8.20	8,424	12,227	13,987	17,822
At Trimmier Trib 1 confluence	8.12	8,413	12,209	13,966	17,789
Upstream of Trimmier Trib 1 confluence	7.80	8,363	12,129	13,874	17,650
1930 feet upstream of Trimmier Trib 1 confluence	7.66	8,340	12,092	13,831	17,586
2700 feet downstream of Chaparral Creek confluence	7.51	8,314	12,051	13,783	17,520
Approximately 5800 feet downstream of E Trimmier Rd.	7.00	8,201	11,874	13,579	17,258
2075 feet upstream of Chaparral Creek confluence	2.88	3,578	5,052	5,740	7,262
Downstream of Trimmier Rd.	2.33	3,304	4,625	5,246	6,661
2180 feet downstream of Stagecoach Rd.	1.28	1,594	2,306	2,636	3,390
2900 feet upstream of Stagecoach Rd.	0.93	1,149	1,652	1,885	2,418
TRIMMIER ROAD DITCH					
Above Nolan Creek confluence	4.11	5,830	8,110	9,150	11,160
Downstream of US HWY 190	3.22	4,670	6,470	7,260	8,890
Downstream of Trimmier Rd.	2.33	3,750	5,250	6,000	7,460
Downstream of Florence Road Ditch	1.78	2,890	4,070	4,650	5,740
Upstream from Florence Road Ditch	1.19	1,830	2,600	2,950	3,630
Downstream of FM 440	0.84	1,440	2,090	2,410	3,040
Downstream from confluence with TD-2	0.51	970	1,380	1,590	2,000
Upstream from confluence with TD-2	0.31	610	860	1,000	1,240
TURTLE CREEK					
Leon River	0.83	820	1,200	1,425	1,880
Beal Street	0.60	650	960	1,130	1,500
Highway 317 (North Main)	0.38	475	690	820	1,080
Montrose Place	0.24	340	500	590	780

REVISED DATA

**REVISED TO
REFLECT LOMR
EFFECTIVE: October 7, 2013**

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (NAVD)	WITHOUT FLOODWAY (NAVD)	WITH FLOODWAY (NAVD)	INCREASE
Trimmer Road								
Ditch								
A	4,446	267	1,541	6.02	822.4	822.4	822.4	0.0
B	5,575	560	2,149	3.38	834.7	834.7	834.7	0.0
C	6,036	403	1,361	5.34	835.0	835.0	835.0	0.0
D	6,146	518	3,221	3.22	837.0	837.0	837.0	0.0
E	11,375	170	1,036	5.79	867.8	867.8	868.8	1.0
F	11,737	200	678	8.85	869.4	869.4	869.4	0.0
G	15,191	220	667	4.42	900.3	900.3	901.0	0.7
H	15,599	80	281	8.57	901.4	901.4	901.5	0.1
I	19,115	131	502	4.80	933.7	933.7	934.1	0.4
J	19,814	55	286	5.56	937.9	937.9	938.6	0.7
K	20,622	140	278	5.71	947.1	947.1	947.7	0.6
L	21,191	243	456	3.49	952.2	952.2	952.9	0.7
M	22,310	29	110	9.13	964.9	964.9	965.1	0.2
REVISED DATA					REVISED TO REFLECT LOMR EFFECTIVE: October 7, 2013			

¹Feet above mouth

Note: In some cases the 100-year discharge is contained in the channel at the floodway elevation.

FEDERAL EMERGENCY MANAGEMENT AGENCY

BELL COUNTY, TX
AND INCORPORATED AREAS

FLOODWAY DATA

TRIMMIER ROAD DITCH

TABLE 6

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (NAVD)	WITHOUT FLOODWAY (NAVD)	WITH FLOODWAY (NAVD)	INCREASE
Little Nolan Creek								
A	2,651	252	2,853	6.81	760.6	760.6	761.5	0.9
B	3,623	317	2,538	7.66	764.3	764.3	765.1	0.8
C	4,523	292	2,613	7.44	768.9	768.9	769.7	0.8
D	6,767	225	2,365	8.22	776.0	776.0	776.8	0.8
E	6,937	221	2,832	6.87	779.2	779.2	779.4	0.2
F	7,527	319	3,203	6.07	779.7	779.7	780.5	0.8
G	9,592	724	5,907	3.15	786.6	786.6	787.4	0.8
H	9,707	598	4,997	3.73	787.2	787.2	787.9	0.7
I	11,235	197	1,715	10.25	791.0	791.0	791.2	0.2
J	12,218	232	2,038	8.62	796.6	796.6	796.6	0.0
K	13,900	235	1,317	6.74	804.2	804.2	804.2	0.0
L	14,096	130	1,411	6.73	804.9	804.9	805.0	0.1
M	14,189	125	1,655	7.13	805.3	805.3	805.4	0.1
N	14,297	129	1,795	7.00	805.7	805.7	805.8	0.1
O	14,399	156	1,496	5.95	806.6	806.6	806.7	0.1
P	17,946	135	1,455	5.77	823.9	823.9	824.6	0.7
Q	17,999	135	1,507	5.58	824.1	824.1	825.0	0.9
R	19,762	530	4,381	1.21	836.4	836.4	837.2	0.8
S	19,818	525	4,540	1.16	836.4	836.4	837.2	0.8
T	24,148	107	726	6.65	858.3	858.3	859.1	0.8
U	24,700	97	362	8.05	858.5	858.5	858.5	0.0
V	30,600	63	208	9.01	901.9	901.9	901.9	0.0

¹Feet above mouth

Note: In some cases the 100-year discharge is contained in the channel at the floodway elevation.

REVISED BY LOMR
EFFECTIVE: April 22, 2013

REVISED TO

REFLECT LOMR
EFFECTIVE: October 7, 2013

REVISED DATA

FEDERAL EMERGENCY MANAGEMENT AGENCY

BELL COUNTY, TX
AND INCORPORATED AREAS

FLOODWAY DATA

LITTLE NOLAN CREEK

TABLE 6









