



Federal Emergency Management Agency

Washington, D.C. 20472

LETTER OF MAP REVISION DETERMINATION DOCUMENT

COMMUNITY AND REVISION INFORMATION		PROJECT DESCRIPTION	BASIS OF REQUEST
COMMUNITY	Town of Huntersville Mecklenburg County North Carolina	STREAM RESTORATION	FLOODWAY HYDRAULIC ANALYSIS UPDATED TOPOGRAPHIC DATA
	COMMUNITY NO.: 370478		
IDENTIFIER	Torrence Creek Tributary 1 Stream Restoration	APPROXIMATE LATITUDE AND LONGITUDE: 35.416, -80.876 SOURCE: Precision Mapping Streets DATUM: NAD 83	
ANNOTATED MAPPING ENCLOSURES		ANNOTATED STUDY ENCLOSURES	
TYPE: FIRM*	NO.: 3710463100K DATE: September 2, 2015	DATE OF EFFECTIVE FLOOD INSURANCE STUDY: September 2, 2015	
TYPE: FIRM*	NO.: 3710463000K DATE: September 2, 2015	PROFILES: 264P AND 265P	
TYPE: FIRM*	NO.: 3710464000K DATE: September 2, 2015	FLOODWAY DATA TABLE: 22	
TYPE: FIRM*	NO.: 3710464100K DATE: September 2, 2015		

Enclosures reflect changes to flooding sources affected by this revision.

* FIRM - Flood Insurance Rate Map

FLOODING SOURCE AND REVISED REACH

Torrence Creek Tributary 1 - from the confluence with Torrence Creek to approximately 250 feet upstream of Interstate 77 (I-77)

SUMMARY OF REVISIONS

Flooding Source	Effective Flooding	Revised Flooding	Increases	Decreases
Torrence Creek Tributary 1	Zone AE	Zone AE	YES	YES
	BFEs*	BFEs	YES	YES
	Floodway	Floodway	YES	YES
	Zone X (shaded)	Zone X (shaded)	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 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 toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 3601 Eisenhower Avenue, Suite 500, Alexandria, VA 22304-6426. Additional Information about the NFIP is available on our website at <https://www.fema.gov/national-flood-insurance-program>.

Patrick "Rick" F. Sacbabit, P.E., Branch Chief
Engineering Services Branch
Federal Insurance and Mitigation Administration



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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 flood discharges computed in the FIS for your community without considering subsequent changes in watershed characteristics that could increase flood discharges. Future development of projects upstream could cause increased flood discharges, which could cause increased flood hazards. A comprehensive restudy of your community's flood hazards would consider the cumulative effects of development on flood discharges subsequent to the publication of the FIS report for your community and could, therefore, establish greater flood hazards in this area.

Your community must regulate all proposed floodplain development and ensure that permits required by Federal and/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.

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 toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 3601 Eisenhower Avenue, Suite 500, Alexandria, VA 22304-6426. Additional Information about the NFIP is available on our website at <https://www.fema.gov/national-flood-insurance-program>.

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LETTER OF MAP REVISION DETERMINATION DOCUMENT (CONTINUED)

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.

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. Jesse Munoz
Director, Mitigation Division
Federal Emergency Management Agency, Region IV
Koger Center - Rutgers Building, 3003 Chamblee Tucker Road
Atlanta, GA 30341
(770) 220-5406

STATUS OF THE COMMUNITY NFIP MAPS

We are currently processing a Physical Map Revision (PMR) that will revise the FIRM and FIS report for a portion of Mecklenburg County, not including the area impacted by this LOMR. We will not physically revise and republish the FIRM and FIS report for your community to incorporate the modifications made by this LOMR at this time. Preliminary copies of the revised FIRM and FIS report, which have been updated by the PMR, were submitted to your community for review on August 30, 2016. We will incorporate the modifications made by this LOMR into the new FIS report before they become effective.

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 toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 3601 Eisenhower Avenue, Suite 500, Alexandria, VA 22304-6426. Additional Information about the NFIP is available on our website at <https://www.fema.gov/national-flood-insurance-program>.

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Engineering Services Branch
Federal Insurance and Mitigation Administration



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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 website at

https://www.floodmaps.fema.gov/fhm/bfe_status/bfe_main.asp

LOCAL NEWSPAPER

Name: *Huntersville Herald Weekly*

Dates: January 11, 2018 and January 18, 2018

Within 90 days of the second publication in the local newspaper, any interested party 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 flood hazard determination 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 toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 3601 Eisenhower Avenue, Suite 500, Alexandria, VA 22304-6426. Additional Information about the NFIP is available on our website at <https://www.fema.gov/national-flood-insurance-program>.

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Patrick "Rick" F. Sacbibit, P.E., Branch Chief
Engineering Services Branch
Federal Insurance and Mitigation Administration

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Torrence Creek Tributary 1								
004	378	102	438	3.1	675.0	673.2 ²	673.7	0.5
009	856	66	412	3.3	675.0	675.0	675.5	0.5
017	1,671	272	1,968	0.7	679.8	679.8	680.3	0.5
025	2,521	225	1,043	1.3	680.3	680.3	680.7	0.4
030	3,041	162	654	2.1	681.0	681.0	681.4	0.4
037	3,711	53	232	6.0	682.6	682.6	683.1	0.5
044	4,435	81	574	2.4	687.9	687.9	688.4	0.5
050	4,973	170	836	1.7	688.4	688.4	688.9	0.5
058	5,847	187	671	2.1	690.4	690.4	690.8	0.4
063	6,332	254	827	1.7	691.7	691.7	692.1	0.4
072	7,231	198	541	2.6	694.6	694.6	695.0	0.4
078	7,751	262	835	1.7	696.5	696.5	697.0	0.5
085	8,468	109	393	3.1	699.7	699.7	700.1	0.4
092	9,158	56	311	3.9	702.2	702.2	702.6	0.4
101	10,089	73	285	3.7	706.8	706.8	707.2	0.4
107	10,732	37	178	5.9	708.8	708.8	709.2	0.4
111	11,090	49	235	4.5	711.0	711.0	711.5	0.5
117	11,704	88	795	1.3	719.7	719.7	719.7	0.0
125	12,503	96	1,020	1.0	725.1	725.1	725.2	0.1
133	13,337	150	983	1.3	725.2	725.2	725.3	0.2
138	13,846	111	548	2.3	725.4	725.4	725.7	0.3

¹ Feet above confluence with Torrence Creek

² Elevation computed without consideration of backwater effects

REVISED DATA

REVISED TO
REFLECT LOMR
EFFECTIVE: May 18, 2018

TABLE 22

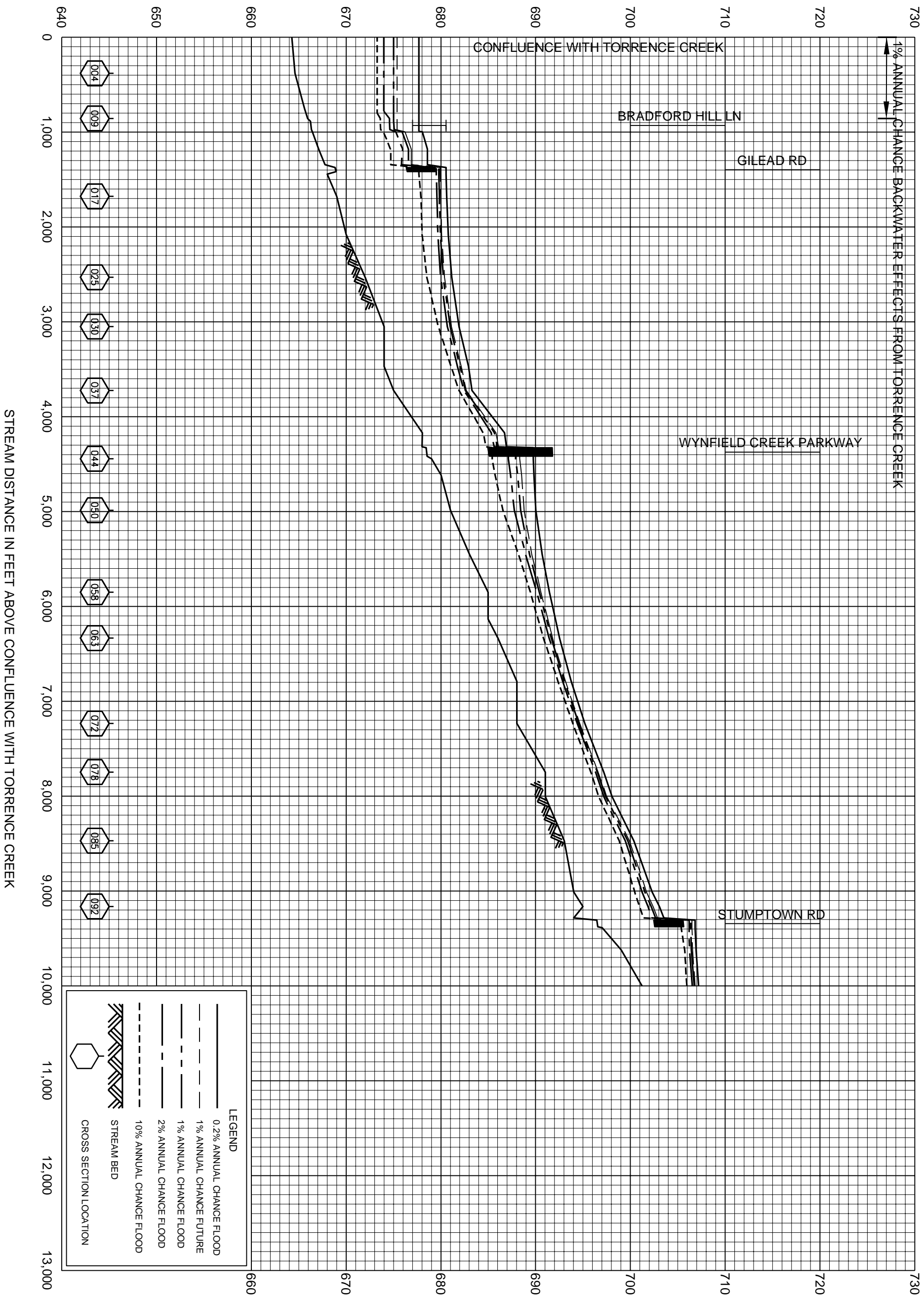
FEDERAL EMERGENCY MANAGEMENT AGENCY

MECKLENBURG COUNTY, NC
AND INCORPORATED AREAS

FLOODWAY DATA

TORRENCE CREEK TRIBUTARY 1

ELEVATION IN FEET (NAVD 88)



REVISED TO REFLECT LOMR EFFECTIVE: May 18, 2018

FEDERAL EMERGENCY MANAGEMENT AGENCY

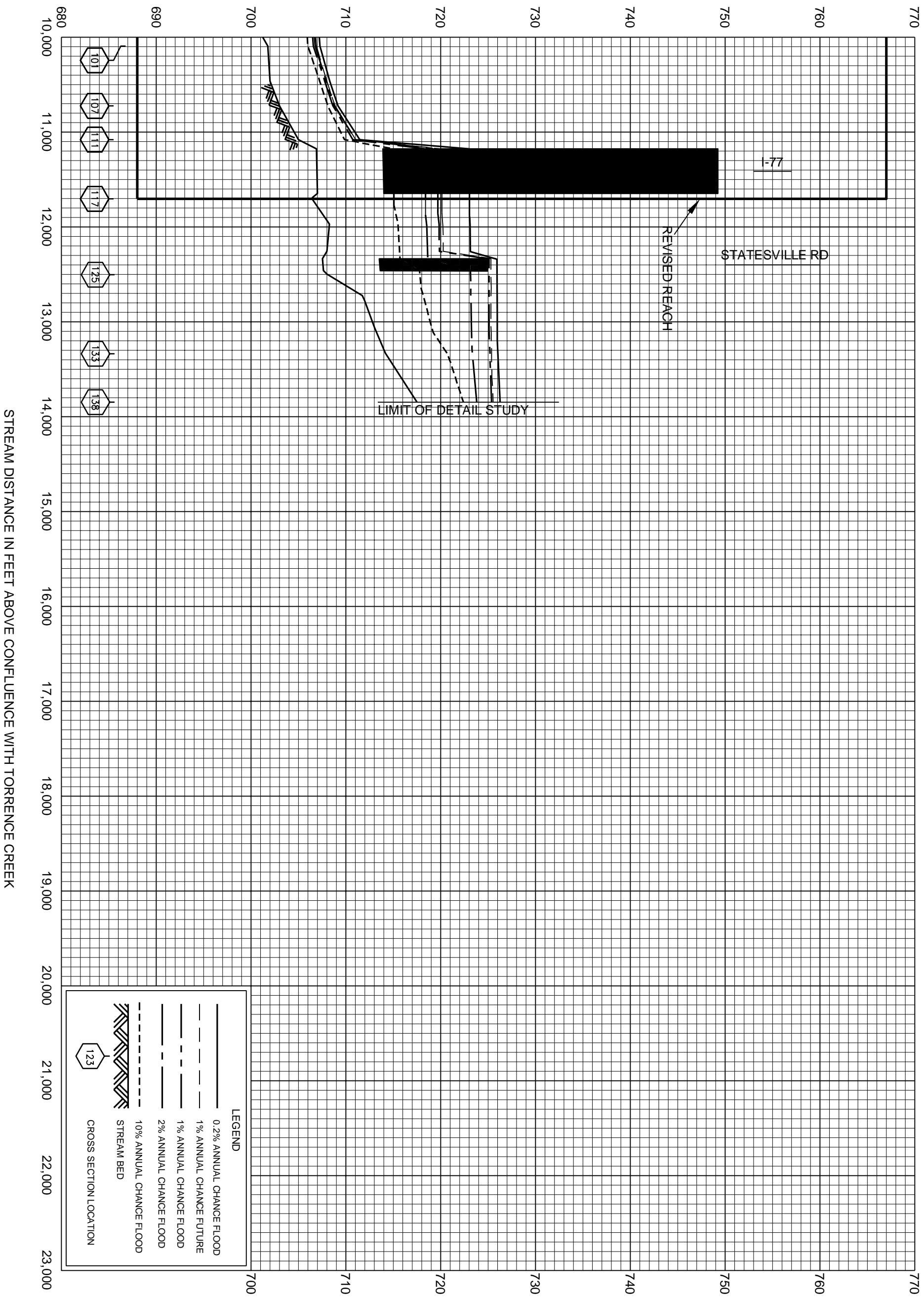
MECKLENBURG COUNTY, NC AND INCORPORATED AREAS

FLOOD PROFILES

TORRENCE CREEK TRIBUTARY 1

264P

ELEVATION IN FEET (NAVD 88)



LEGEND

- 0.2% ANNUAL CHANCE FLOOD (solid line)
- 1% ANNUAL CHANCE FUTURE (dashed line)
- 1% ANNUAL CHANCE FLOOD (long dashed line)
- 2% ANNUAL CHANCE FLOOD (short dashed line)
- 10% ANNUAL CHANCE FLOOD (dash-dot line)
- STREAM BED (hatched line)
- CROSS SECTION LOCATION (hexagon with number)

REVISED TO
REFLECT LOMR
EFFECTIVE: May 18, 2018

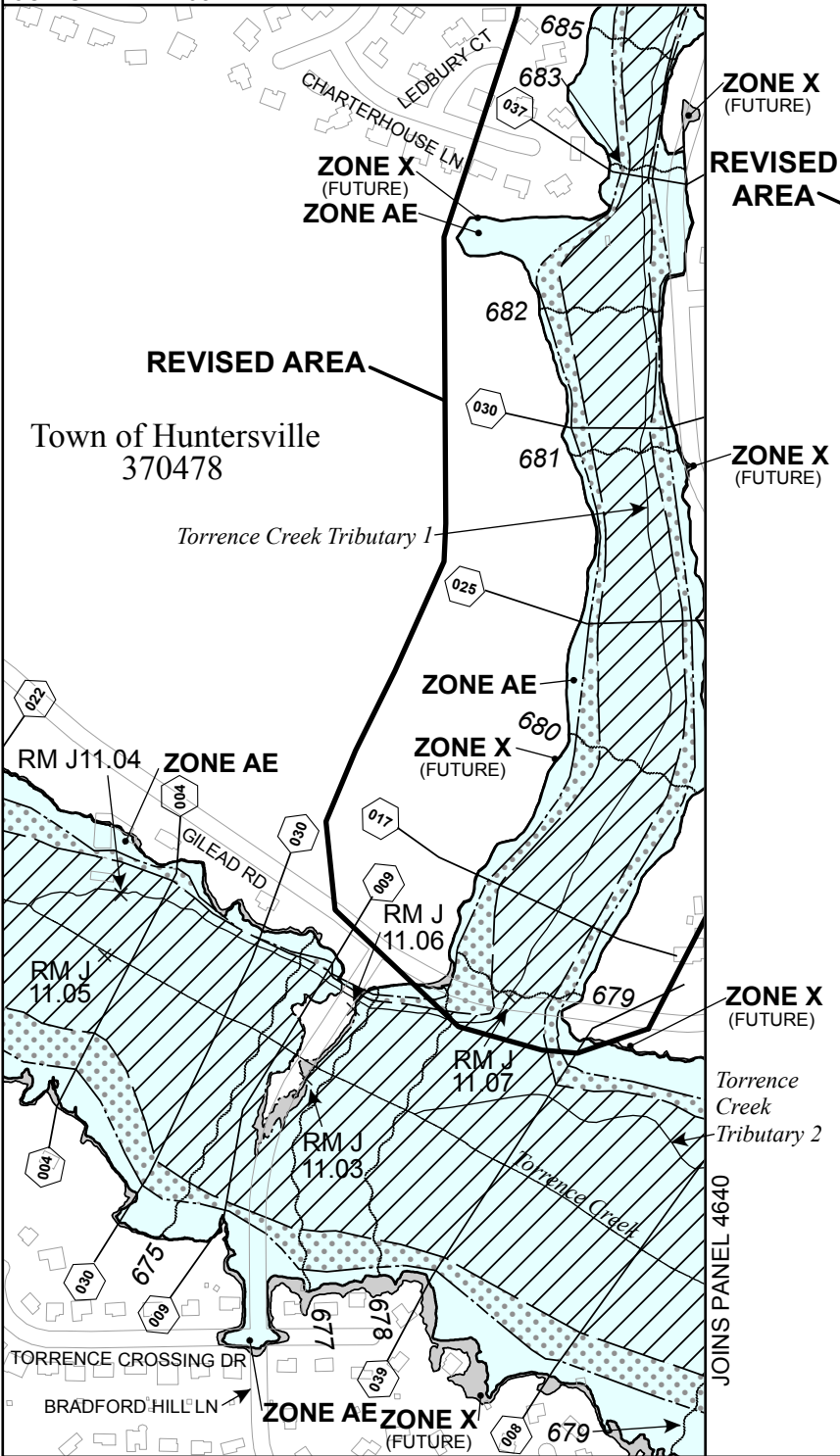
FEDERAL EMERGENCY MANAGEMENT AGENCY
MECKLENBURG COUNTY, NC
AND INCORPORATED AREAS

FLOOD PROFILES

TORRENCE CREEK TRIBUTARY 1

265P

JOINS PANEL 4631



FLOOD HAZARD DATA TABLE

Cross Section	Stream Station	Flood Discharge (cfs)		1% Annual Chance (100-year) Water-Surface Elevation (feet NAVD88)		Floodway	Community Encroachment Line
		Existing Land Use Conditions	Future Land Use Conditions	Existing Land Use Conditions	Future Land Use Conditions	Distance in Feet From Center of Stream to Encroachment Boundary (Looking Downstream)	
						Left / Right	Left / Right
TORRENCE CREEK TRIBUTARY 1							
004	378 ¹	1,363	1,451	675.0	675.4	48 / 54	64 / 90
009	856 ¹	1,363	1,451	675.0	675.2	43 / 24	49 / 46
017	1671 ¹	1,385	1,472	679.8	680.0	103 / 169	126 / 202
025	2521 ¹	1,385	1,472	680.3	680.4	57 / 167	81 / 191
030	3041 ¹	1,385	1,472	681.0	681.1	16 / 146	60 / 193
037	3711 ¹	1,385	1,472	682.6	682.7	14 / 39	25 / 60

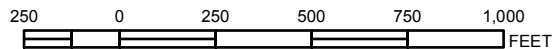
¹ Feet above confluence with Torrence Creek.

Legend

- 1% annual chance (100-Year) Floodplain
- 1% annual chance (100-Year) Floodway
- Community Encroachment Area
- 1% annual chance Future Conditions (100-Year) Floodplain



MAP SCALE 1" = 500' (1 : 6,000)



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 4630K

FIRM
FLOOD INSURANCE RATE MAP
NORTH CAROLINA

PANEL 4630
 (SEE LOCATOR DIAGRAM OR MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	CID No.	PANEL	SUFFIX
HUNTSVILLE, TOWN OF	370478	4630	K
MECKLENBURG COUNTY	370158	4630	K

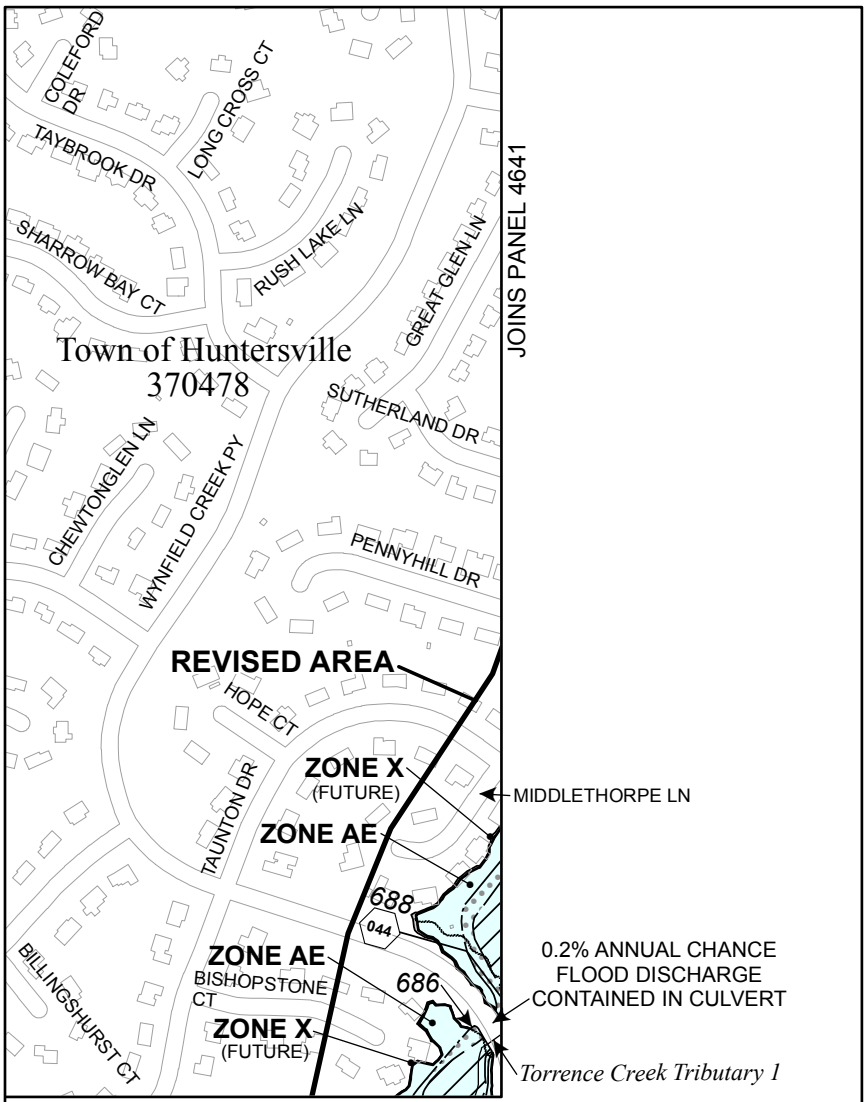
REVISED TO REFLECT LOMR EFFECTIVE: May 18, 2018

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP REVISED SEPTEMBER 2, 2015 **MAP NUMBER 3710463000K**



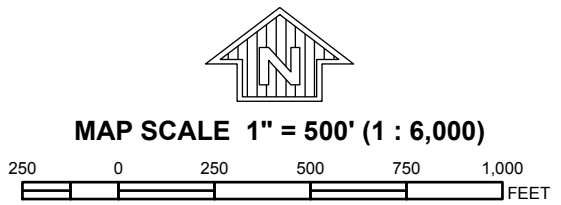
State of North Carolina
 Federal Emergency Management Agency



FLOOD HAZARD DATA TABLE				1% Annual Chance (100-year) Water-Surface Elevation (feet NAVD88)		Floodway	Community Encroachment Line
Cross Section	Stream Station	Flood Discharge (cfs)		Existing Land Use Conditions	Future Land Use Conditions	Distance in Feet From Center of Stream to Encroachment Boundary (Looking Downstream)	
		Existing Land Use Conditions	Future Land Use Conditions			Left / Right	Left / Right
TORRENCE CREEK TRIBUTARY 1							
044	4435 ¹	1,385	1,472	687.9	688.3	36 / 45	36 / 218

¹ Feet above confluence with Torrence Creek.

- Legend**
- 1% annual chance (100-Year) Floodplain
 - 1% annual chance (100-Year) Floodway
 - Community Encroachment Area
 - 1% annual chance Future Conditions (100-Year) Floodplain



PANEL 4631K

FIRM

**FLOOD INSURANCE RATE MAP
NORTH CAROLINA**

PANEL 4631
(SEE LOCATOR DIAGRAM OR MAP INDEX FOR FIRM
PANEL LAYOUT)

CONTAINS:

COMMUNITY	CID No.	PANEL	SUFFIX
HUNTERSVILLE, TOWN OF	370478	4631	K
MECKLENBURG COUNTY	370158	4631	K

**REVISED TO
REFLECT LOMR
EFFECTIVE: May 18, 2018**

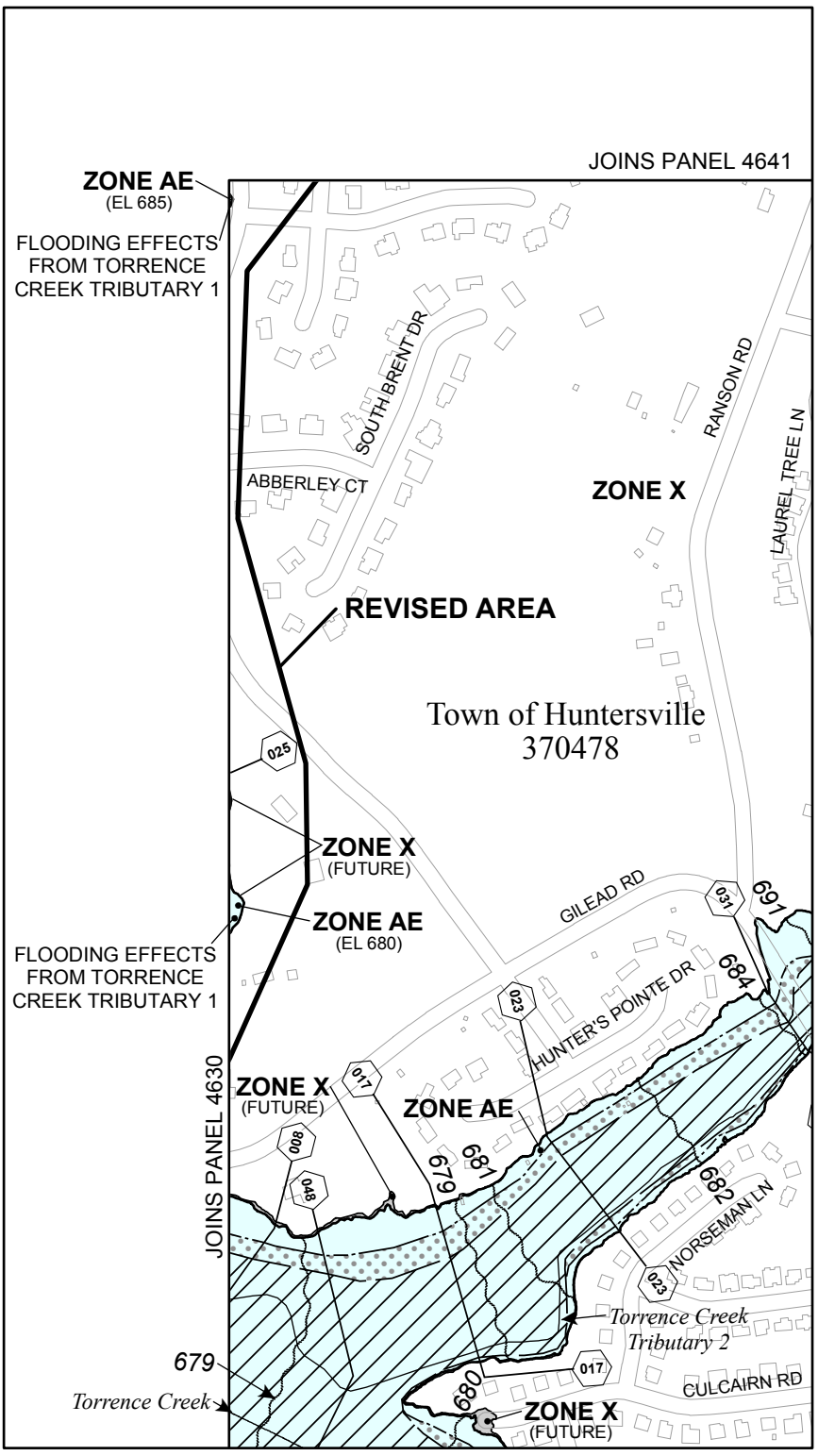
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MAP REVISED
SEPTEMBER 2, 2015

MAP NUMBER
3710463100K

State of North Carolina
Federal Emergency Management Agency

NATIONAL FLOOD INSURANCE PROGRAM



FLOOD HAZARD DATA TABLE				1% Annual Chance (100-year) Water-Surface Elevation (feet NAVD88)		Floodway	Community Encroachment Line
Cross Section	Stream Station	Flood Discharge (cfs)		Existing Land Use Conditions	Future Land Use Conditions	Distance in Feet From Center of Stream to Encroachment Boundary (Looking Down stream)	
		Existing Land Use Conditions	Future Land Use Conditions			Left / Right	Left / Right
TORRENCE CREEK TRIBUTARY 1							
025	2521 ¹	1,385	1,472	680.3	680.4	57 / 167	81 / 191

¹ Feet above confluence with Torrence Creek.

PANEL 4640K

FIRM

**FLOOD INSURANCE RATE MAP
NORTH CAROLINA**

PANEL 4640
(SEE LOCATOR DIAGRAM OR MAP INDEX FOR FIRM
PANEL LAYOUT)

CONTAINS:

COMMUNITY	CID No.	PANEL	SUFFIX
HUNTERSVILLE, TOWN OF	370478	4640	K
MECKLENBURG COUNTY	370158	4640	K

**REVISED TO
REFLECT LOMR
EFFECTIVE: May 18, 2018**

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MAP REVISED
SEPTEMBER 2, 2015

MAP NUMBER
3710464000K

State of North Carolina
Federal Emergency Management Agency

Legend

- 1% annual chance (100-Year) Floodplain
- 1% annual chance (100-Year) Floodway
- Community Encroachment Area
- 1% annual chance Future Conditions (100-Year) Floodplain

MAP SCALE 1" = 500' (1 : 6,000)

NATIONAL FLOOD INSURANCE PROGRAM

FLOOD HAZARD DATA TABLE				1% Annual Chance (100-year) Water-Surface Elevation (feet NAVD88)		Floodway	Community Encroachment Line
Cross Section	Stream Station	Flood Discharge (cfs)		Existing Land Use Conditions	Future Land Use Conditions	Distance in Feet From Center of Stream to Encroachment Boundary (Looking Downstream)	
		Existing Land Use Conditions	Future Land Use Conditions			Left / Right	Left / Right
TORRENCE CREEK TRIBUTARY 1							
044	4435 ¹	1,385	1,472	687.9	688.3	36 / 45	36 / 218
050	4973 ¹	1,385	1,472	688.4	688.8	18 / 152	34 / 176
058	5847 ¹	1,385	1,472	690.4	690.6	48 / 139	102 / 191
063	6332 ¹	1,385	1,472	691.7	691.8	80 / 173	112 / 216
072	7231 ¹	1,385	1,472	694.6	694.7	13 / 185	30 / 258
078	7751 ¹	1,385	1,472	696.5	696.6	83 / 179	98 / 286
085	8468 ¹	1,213	1,326	699.7	699.9	30 / 79	85 / 112
092	9158 ¹	1,213	1,326	702.2	702.4	27 / 28	37 / 39
101	10089 ¹	1,052	1,085	706.8	706.9	34 / 38	79 / 78
107	10732 ¹	1,052	1,085	708.8	708.9	17 / 20	23 / 27
111	11090 ¹	1,052	1,085	711.0	711.0	23 / 25	72 / 70
117	11704 ¹	1,052	1,085	719.7	720.1	46 / 42	56 / 55

¹ Feet above confluence with Torrence Creek.

