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 Pineville Mecklenburg County North Carolina**	**FILL GRADING**	**1D HYDRAULIC ANALYSIS FLOODWAY UPDATED TOPOGRAPHIC DATA**
	COMMUNITY NO.: 370160		
IDENTIFIER	12115 Downs Road	**APPROXIMATE LATITUDE & LONGITUDE: 35.098, -80.900 SOURCE:** Other **DATUM:** NAD 83	

ANNOTATED MAPPING ENCLOSURES	ANNOTATED STUDY ENCLOSURES
TYPE: FIRM* NO.: 3710443900L DATE: September 2, 2015 TYPE: FIRM* NO.: 3710442900K DATE: September 2, 2015	DATE OF EFFECTIVE INSURANCE STUDY: November 16, 2018 FLOODWAY DATA TABLE 14

Enclosures reflect changes to flooding sources affected by this revision.
* FIRM - Flood Insurance Rate Map

FLOODING SOURCE AND REVISED REACH

Sugar Creek - From approximately 300 feet upstream of Main Street to approximately 500 feet downstream of Norfolk Southern Railway

SUMMARY OF REVISIONS

Flooding Source	Effective Flooding	Revised Flooding	Increases	Decreases
Sugar Creek	Zone AE	Zone AE	YES	YES
	Floodway	Floodway	YES	NONE
	BFEs*	BFEs*	YES	YES
	Zone X (Shaded)	Zone X (Shaded)	YES	YES
	Community Floodway	Community Floodway	YES	NONE

* 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 Mapping and Insurance 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/flood-insurance.

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

Federal Emergency Management Agency
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LETTER OF MAP REVISION
DETERMINATION DOCUMENT (CONTINUED)

OTHER COMMUNITIES AFFECTED BY THIS REVISION

CID Number: 370159 **Name:** City of Charlotte, North Carolina

AFFECTED MAP PANELS	AFFECTED PORTIONS OF THE FLOOD INSURANCE STUDY REPORT
TYPE: FIRM* NO.: 3710443900L DATE: September 2, 2015	DATE OF EFFECTIVE INSURANCE STUDY: November 16, 2018 FLOODWAY DATA TABLE: 14

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 Mapping and Insurance 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/flood-insurance.

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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.

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.

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 revision has met our criteria for removing an area from the base (1-percent-annual-chance) floodplain to reflect the placement of fill. However, we encourage you to require that the lowest adjacent grade and lowest floor (including basement) of any structure placed within the subject area be elevated to or above the Base (1-percent-annual-chance) Flood Elevation.

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 Mapping and Insurance 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/flood-insurance.

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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:

Jacky Bell
Director, Mitigation Division
Federal Emergency Management Agency, Region IV
Rhodes Building, 3005 Chamblee Tucker Road
Atlanta, GA 30341
(770)220-5406

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(s) 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 Mapping and Insurance 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/flood-insurance.

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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: *Mecklenburg Times*

Dates: January 31, 2023 and February 7, 2023

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 Mapping and Insurance 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/flood-insurance.

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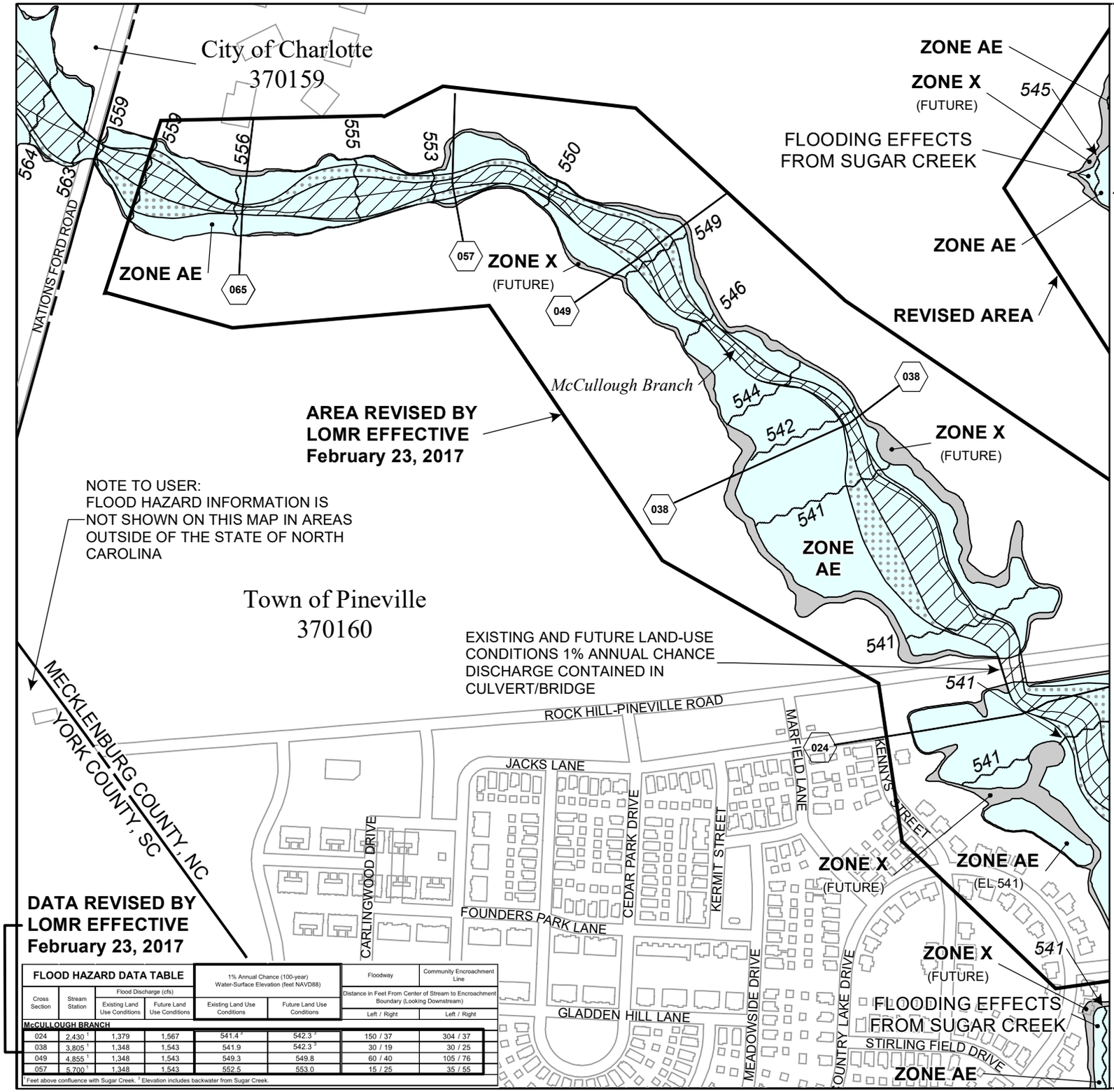
Federal Insurance and Mitigation Administration

Table 14 - Floodway Data

		1% Flood Discharges		Floodway			Non-Encroachment Offsets		Water Surface Elevation				
Cross Section	Distance (Feet Above Mouth)	Existing Land Use Conditions	Future Land Use Conditions	Width (Feet)	Section Area (Square Feet)	Mean Velocity (Feet Per Second)	Floodway	Community Encroachment Area	Regulatory	1% Annual Chance Future Water-Surface Elevation	Without Floodway	With Floodway	Increase
Stony Creek Tributary													
54	5,447	1,400	1,626	38	181	7.7	19 / 19	33 / 20	677.3	677.7	677.3	677.8	0.4
57	5,724	1,400	1,626	59	215	6.5	17 / 42	21 / 75	681.0	681.5	681.0	681.2	0.2
59	5,898	1,400	1,626	34	207	6.8	17 / 17	21 / 30	682.7	683.0	682.7	683.1	0.4
61	6,141	1,400	1,626	55	271	5.2	22 / 33	41 / 48	684.7	685.2	684.7	685.0	0.3
65	6,452	1,400	1,626	55	319	4.4	38 / 17	66 / 17	686.6	687.1	686.6	687.0	0.4
66	6,609	1,400	1,626	29	167	8.4	15 / 14	15 / 14	687.1	687.4	687.1	687.6	0.5
70	7,021	1,400	1,626	242	1,950	0.7	50 / 192	77 / 208	693.0	693.3	693.0	693.4	0.4
75	7,465	1,400	1,626	135	966	1.5	112 / 23	122 / 33	693.0	693.3	693.0	693.4	0.4
83	8,328	1,400	1,626	210	818	1.7	92 / 119	148 / 177	693.9	694.2	693.9	694.1	0.3
87	8,672	1,400	1,626	206	585	2.4	177 / 29	228 / 60	694.2	694.6	694.2	694.6	0.4
90	9,021	1,291	1,506	161	408	3.2	143 / 19	231 / 30	695.4	695.7	695.4	695.8	0.4
92	9,245	1,291	1,506	224	433	3.0	207 / 17	276 / 17	696.4	696.7	696.4	696.9	0.4
105	10,459	1,291	1,506	108	273	4.7	15 / 93	15 / 153	704.3	704.6	704.3	704.6	0.2
108	10,790	1,291	1,506	57	241	5.4	38 / 19	59 / 28	706.7	707.1	706.7	707.0	0.3
111	11,079	1,291	1,506	39	216	6.0	19 / 19	20 / 90	708.2	708.6	708.2	708.6	0.3
113	11,330	1,142	1,341	109	258	4.4	16 / 94	16 / 137	710.2	710.5	710.2	710.5	0.3
118	11,796	1,142	1,341	91	259	4.4	45 / 46	58 / 76	713.2	713.4	713.2	713.5	0.3
120	12,020	1,142	1,341	113	313	3.6	55 / 59	86 / 94	714.2	714.4	714.2	714.7	0.5
Stowe Branch													
4	421	1,478	1,636	91	536	2.8	50 / 41	64 / 52	571.7	572.0	571.7	572.2	0.5
11	1,064	1,478	1,636	134	506	2.9	16 / 119	16 / 204	573.0	573.3	573.0	573.5	0.5
16	1,615	1,478	1,636	50	248	6.0	16 / 34	16 / 64	576.6	576.9	576.6	577.1	0.5
22	2,215	1,478	1,636	44	235	6.3	28 / 16	68 / 24	580.4	580.7	580.4	580.9	0.4
29	2,856	1,478	1,636	78	319	4.6	15 / 63	20 / 99	584.8	585.1	584.8	585.3	0.5
37	3,659	1,322	1,460	67	279	4.7	50 / 17	78 / 52	589.7	590.0	589.7	590.2	0.5
41	4,143	1,322	1,460	155	1,206	1.1	94 / 61	105 / 71	597.1	597.2	597.1	597.5	0.5
Sugar Creek													
0	2	16,996	18,889	282	4,057	4.2	204 / 77	230 / 96	537.9	538.8	537.9	538.4	0.5
7	712	16,996	18,889	481	6,557	2.6	307 / 174	334 / 214	539.1	540.0	539.1	539.6	0.5
18	1,752	16,996	18,889	763	12,063	1.4	524 / 239	572 / 265	540.4	541.4	540.4	540.9	0.5
30	2,967	16,996	18,889	939	14,368	1.2	702 / 238	731 / 280	540.7	541.7	540.7	541.2	0.5
49	4,867	16,996	18,889	1,321	10,848	1.6	295 / 1026	348 / 1026	541.6	542.4	541.6	542.0	0.5
60	5,972	16,996	18,889	2,008	19,557	0.9	1087 / 921	1548 / 1106	541.9	542.7	541.9	542.4	0.5
69	6,852	16,996	18,889	1,080	11,711	1.4	657 / 423	707 / 423	543.4	543.9	543.4	543.9	0.5
82	8,152	16,996	18,889	416	6,091	2.8	162 / 254	189 / 274	544.1	544.6	544.1	544.6	0.5
91	9,052	16,996	18,889	1,190	11,490	1.5	249 / 941	279 / 1026	544.9	545.5	544.9	545.4	0.5
101	10,087	16,996	18,889	378	4,647	3.7	283 / 95	322 / 113	544.8	545.3	544.8	545.3	0.5
109	10,852	16,996	18,889	697	8,532	2.0	477 / 220	613 / 266	546.3	547.0	546.3	546.8	0.5
118	11,802	16,996	18,889	399	4,794	3.5	185 / 214	297 / 827	546.9	547.6	546.9	547.4	0.5
128	12,772	16,996	18,889	450	5,515	3.1	379 / 71	546 / 101	548.0	548.7	548.0	548.5	0.5
137	13,652	16,996	18,889	476	5,984	2.8	281 / 195	375 / 243	548.9	549.7	548.9	549.4	0.5
146	14,552	16,996	18,889	441	5,252	3.2	211 / 230	261 / 274	549.8	550.5	549.8	550.3	0.5
153	15,252	16,996	18,889	310	4,439	3.8	124 / 186	148 / 199	551.4	552.1	551.4	551.9	0.5
161	16,052	16,996	18,889	243	3,296	5.2	94 / 149	110 / 157	552.4	553.1	552.4	552.9	0.5
170	17,022	16,687	18,467	431	5,841	2.9	87 / 344	190 / 387	554.8	555.7	554.8	555.3	0.5
180	17,952	16,687	18,467	1,021	13,551	1.2	447 / 573	691 / 603	555.6	556.4	555.6	556.1	0.5
191	19,052	16,687	18,467	409	5,785	2.9	124 / 285	165 / 385	558.3	559.2	558.3	558.3	0.0

Revised Data

REVISED TO
REFLECT LOMR
EFFECTIVE: June 7, 2023



DATA REVISED BY LOMR EFFECTIVE February 23, 2017

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)				Distance in Feet From Center of Stream to Encroachment Boundary (Looking Downstream)	
		Existing Land Use Conditions	Future Land Use Conditions	Existing Land Use Conditions	Future Land Use Conditions	Left / Right	Left / Right
McCULLOUGH BRANCH							
024	2,430 [1]	1,379	1,567	541.4 [3]	542.3 [3]	150 / 37	304 / 37
038	3,805 [1]	1,348	1,543	541.9	542.3 [3]	30 / 19	30 / 25
049	4,855 [1]	1,348	1,543	549.3	549.8	60 / 40	105 / 76
057	5,700 [1]	1,348	1,543	552.5	553.0	15 / 25	35 / 55

[1] Feet above confluence with Sugar Creek. [3] Elevation includes backwater from Sugar Creek.

Legend

- 1% annual chance (100-Year) Floodplain
- 1% annual chance (100-Year) Floodway
- Zone X (Future Conditions)
- Community Encroachment Areas (Mecklenburg County)

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

500 0 500 FEET
150 0 150 METERS

NFIP
NATIONAL FLOOD INSURANCE PROGRAM

PANEL 4429K

FIRM

FLOOD INSURANCE RATE MAP
NORTH CAROLINA

PANEL 4429
(SEE LOCATOR DIAGRAM OR MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	CID No.	PANEL	SUFFIX
CHARLOTTE, CITY OF	370159	4429	K
MECKLENBURG COUNTY	370158	4429	K
PINVILLE, TOWN OF	370160	4429	K

REVISED TO REFLECT LOMR EFFECTIVE: June 7, 2023

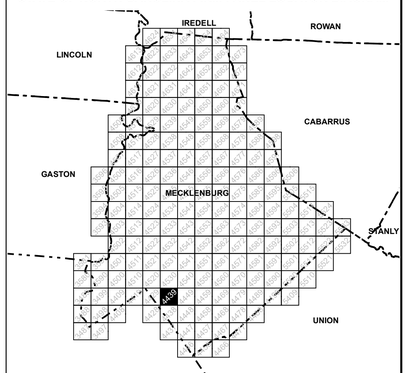
Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP REVISED **MAP NUMBER**
SEPTEMBER 2, 2015 **3710442900K**

Charlotte-Mecklenburg STORM WATER Services

State of North Carolina
Federal Emergency Management Agency

STATE OF NORTH CAROLINA FIRM PANEL LOCATOR DIAGRAM



DATUM INFORMATION

The **projection** used in the preparation of this map was the North Carolina State Plane (FIPSZONE 3200). The **horizontal datum** was the North American Datum of 1983, GRS80 ellipsoid. Differences in datum, ellipsoid, projection, or Universal Transverse Mercator zones used in the production of FIRMS for adjacent jurisdictions may result in slight positional differences in map features across jurisdictional boundaries. These differences do not affect the accuracy of this FIRM. All coordinates on this map are in U.S. Survey Feet, where
1 U.S. Survey Foot = 1200/3937 Meters.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988 (NAVD 88). These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. An average offset between NAVD 88 and the National Geodetic Vertical Datum of 1929 (NGVD 29) has been computed for each North Carolina county. This offset was then applied to the NGVD 29 flood elevations that were not revised during the creation of this statewide format FIRM. The offsets for each county shown on this FIRM panel are shown in the vertical datum offset table below. Where a county boundary and a flooding source with unrevised NGVD 29 flood elevations are coincident, an individual offset has been calculated and applied during the creation of this statewide format FIRM. See Section 6.1 of the accompanying Flood Insurance Study report to obtain further information on the conversion of elevations between NAVD 88 and NGVD 29. To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the North Carolina Geodetic Survey at the address shown below. You may also contact the Information Services Branch of the National Geodetic Survey at **(301) 713-3242**, or visit its website at http://www.ngs.noaa.gov.

North Carolina Geodetic Survey
121 West Jones Street
Raleigh, NC 27601
(919) 733-3836
http://www.ncgs.state.nc.us

County Average Vertical Datum Offset Table

County	Vertical Datum Offset (ft)
MECKLENBURG	-0.74

Example: NAVD 88 = NGVD 29 + (-0.74)

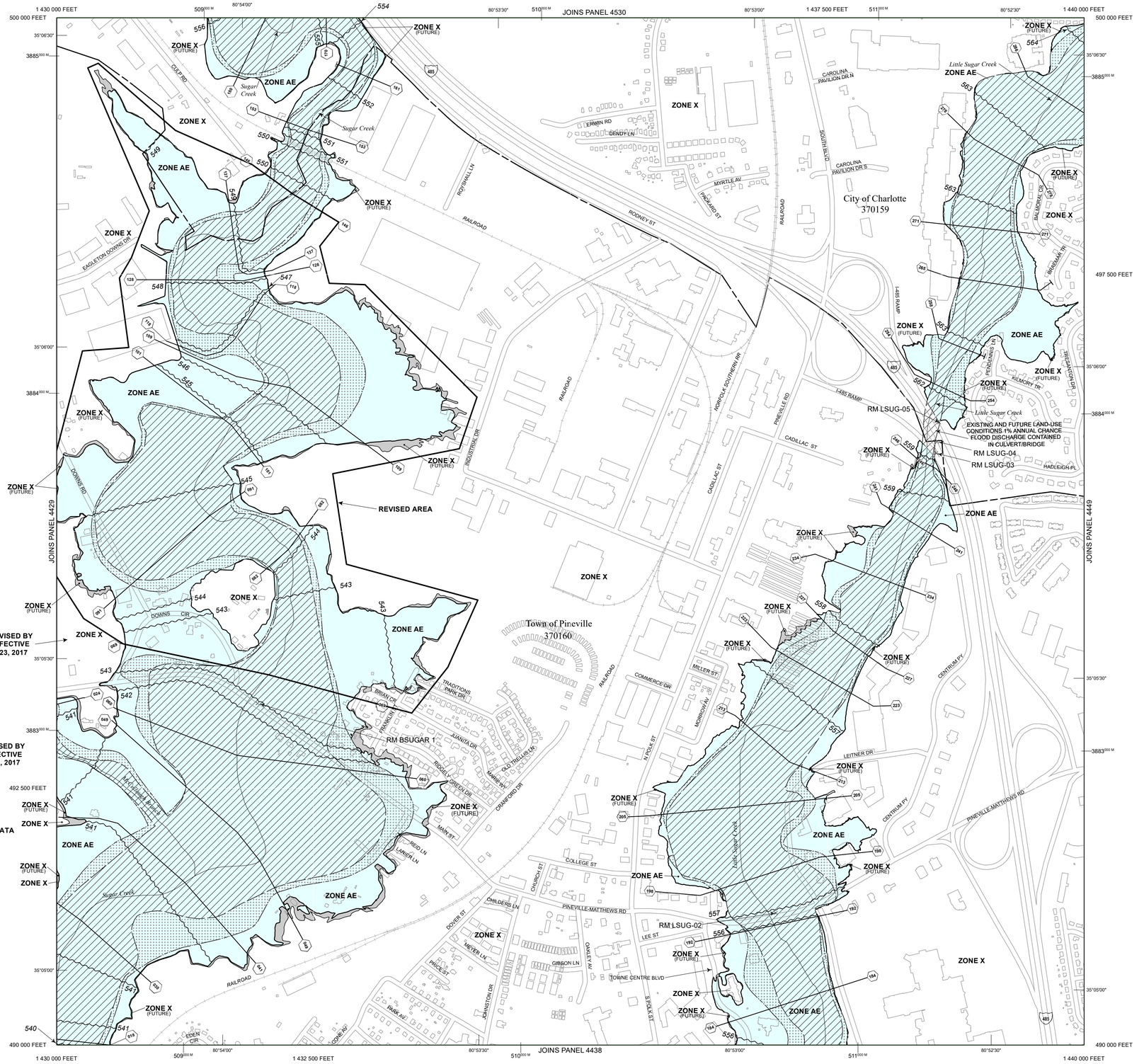
All streams listed in the **Flood Hazard Data Table** below were studied by detailed methods using field survey. Other flood hazard data shown on this map may have been derived using either a coastal analysis or limited detailed Riverine analysis. More information on the flooding sources studied by these analyses is contained in the Flood Insurance Study report.

FLOOD HAZARD DATA TABLE

Cross Section	Stream Station	Flood Discharge (cfs): Existing Land Use Conditions	Flood Discharge (cfs): Future Land Use Conditions	1% Annual Chance (100-year) Water-Surface Elevation (feet NAVD88): Existing Land Use Conditions	1% Annual Chance (100-year) Water-Surface Elevation (feet NAVD88): Future Land Use Conditions	Floodway: Distance in Feet From Center of Stream to Encroachment Boundary (Looking Downstream): Left / Right	Community Encroachment Line: Distance in Feet From Center of Stream to Encroachment Boundary (Looking Downstream): Left / Right
LITTLE SUGAR CREEK							
184	18,431 ¹	13,909	14,510	555.8	556.0	123 / 376	146 / 503
192	19,234 ¹	14,099	14,714	556.0	556.2	435 / 257	435 / 287
198	19,752 ¹	14,099	14,714	557.2	557.3	819 / 242	820 / 299
205	20,480 ¹	14,099	14,714	557.2	557.4	630 / 708	735 / 749
213	21,266 ¹	14,099	14,714	557.3	557.4	577 / 100	597 / 125
223	22,300 ¹	14,099	14,714	557.5	557.7	169 / 486	196 / 569
227	22,715 ¹	14,099	14,714	557.8	558.0	131 / 220	153 / 387
234	23,431 ¹	14,099	14,714	558.4	558.6	90 / 251	122 / 288
241	24,055 ¹	14,642	15,306	558.8	559.0	185 / 185	213 / 214
246	24,645 ¹	14,642	15,306	559.0	559.2	96 / 48	99 / 63
254	25,413 ¹	14,642	15,306	562.0	562.4	61 / 67	216 / 82
258	25,840 ¹	14,642	15,306	562.5	562.9	129 / 131	178 / 227
265	26,521 ¹	14,642	15,306	562.8	563.2	397 / 191	412 / 202
271	27,055 ¹	14,642	15,306	562.9	563.3	237 / 328	269 / 362
278	27,784 ¹	14,642	15,306	563.2	563.6	66 / 513	89 / 536
286	28,555 ¹	14,770	15,413	563.6	563.9	605 / 394	819 / 394
McCULLOUGH BRANCH							
024	2,430 ¹	1,379	1,567	541.4 *	542.3 *	150 / 37	304 / 37
SUGAR CREEK							
018	1,752 ¹	16,996	18,889	540.4	541.4	524 / 240	571 / 266
030	2,907 ¹	16,996	18,889	540.7	541.7	693 / 246	723 / 299
041	4,092 ¹	16,996	18,889	541.3	542.1	450 / 625	689 / 700
049	4,867 ¹	16,996	18,889	541.6	542.4	296 / 1,025	349 / 1,025
060	5,972 ¹	16,996	18,889	541.9	542.7	1,082 / 907	1,542 / 1,063
069	6,852 ¹	16,996	18,889	543.4	543.9	657 / 423	707 / 423
082	8,152 ¹	16,996	18,889	544.1	544.6	162 / 254	189 / 274
091	9,052 ¹	16,996	18,889	544.9	545.5	249 / 941	279 / 1,026
101	10,087 ¹	16,996	18,889	544.8	545.3	283 / 95	322 / 113
109	10,852 ¹	16,996	18,889	546.3	547.0	477 / 220	613 / 266
118	11,802 ¹	16,996	18,889	546.9	547.6	185 / 214	297 / 827
128	12,772 ¹	16,996	18,889	548.0	548.7	379 / 71	546 / 101
137	13,652 ¹	16,996	18,889	548.9	549.7	281 / 195	375 / 243
146	14,552 ¹	16,996	18,889	549.8	550.5	211 / 230	261 / 274
153	15,252 ¹	16,996	18,889	551.4	552.1	110 / 200	134 / 213
161	16,052 ¹	16,996	18,889	552.4	553.1	93 / 150	109 / 158
170	17,022 ¹	16,687	18,467	554.8	555.7	86 / 345	189 / 368
180	17,952 ¹	16,687	18,467	555.6	556.4	445 / 576	689 / 605

¹ Feet above County line. * Feet above confluence w th Sugar Creek. ^ Elevation includes backw ater from Sugar Creek.

All streams listed in the **Flood Hazard Data Table** below were studied by detailed methods using field survey. Other flood hazard data shown on this map may have been derived using either a coastal analysis or limited detailed Riverine analysis. More information on the flooding sources studied by these analyses is contained in the Flood Insurance Study report.



AREA REVISED BY LOMR EFFECTIVE February 23, 2017

DATA REVISED BY LOMR EFFECTIVE February 23, 2017

REVISED DATA

LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- **ZONE A** No Base Flood Elevation determined.
- **ZONE AE** Base Flood Elevations determined.
- **ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- **ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- **ZONE AR** Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- **ZONE A99** Areas to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- **ZONE VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

COMMUNITY ENCROACHMENT AREAS (Mecklenburg County)

OTHER FLOOD AREAS

- **ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER FLOOD AREAS (Mecklenburg County)

- **ZONE X** Areas of future conditions 1% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

- **ZONE X** Areas determined to be outside the 0.2% annual chance floodplain; areas outside future conditions 1% annual chance floodplain.
- **ZONE D** Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary (Mecklenburg County)
- 1% annual chance floodplain boundary
- 1% annual chance future conditions floodplain boundary (Mecklenburg County)
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Community encroachment boundary (Mecklenburg County)
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- 513 — Base Flood Elevation line and value; elevation in feet*
- (EL 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988

- 512 — Cross section line
- 23 — 23 — Transect line
- 97°07'30", 32°22'30" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
- 4275000 M — 1000-meter Universal Transverse Mercator grid ticks, zone 17
- 1 477 500 FEET — 2500-foot grid values: North Carolina State Plane coordinate system (FIPSZONE 3200, State Plane NAD 83 feet)
- BM5510 — North Carolina Geodetic Survey bench mark (for more information visit http://www.ncgs.state.nc.us)
- BM5510 — National Geodetic Survey bench mark (for more information visit http://www.ngs.noaa.gov)
- BM5510 — NGS-58 GPS 2-5 cm Vertical Control Marks or Contractor-Established NCFMP Bench Marks (for more information visit http://www.ncgs.state.nc.us)
- RM_LSUG14 — Mecklenburg County bench mark (for more information visit ftp://ftp1.co.mecklenburg.nc.us/sesa/stormwater/FIRM Reference Marks/)
- M1.5 — River Mile

GRID NORTH

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

250 0 250 500 750 1,000 FEET
150 0 150 300 METERS

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles, Floodway Data, Limited Detailed Flood Hazard Data, and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Boundaries of **regulatory floodways** shown on the FIRM for flooding sources studied by detailed methods were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data for flooding sources studied by detailed methods as well as **non-encroachment widths** for flooding sources studied by limited detailed methods are provided in the Flood Insurance Study (FIS) report for this jurisdiction. The FIS report also provides instructions for determining a floodway using non-encroachment widths for flooding sources studied by limited detailed methods.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 4.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures in this jurisdiction.

Base map information and geospatial data used to develop this FIRM were obtained from various organizations, including the participating local community(ies), state and federal agencies, and/or other sources. The primary base for this FIRM is planimetric base map information obtained from and maintained by Mecklenburg County GIS Department and is current as of 2011. Information and geospatial data supplied by the local community(ies) that met FEMA base map specifications were considered the preferred source for development of the base map. See geospatial metadata for the associated digital FIRM for additional information about base map preparation.

Base map features shown on this map, such as **corporate limits**, are based on the most up-to-date data available at the time of publication. **Changes in the corporate limits may have occurred since this map was published.** Map users should consult the appropriate community official or website to verify current conditions of jurisdictional boundaries and base map features. This map may contain roads that were not considered in the hydraulic analysis of streams where no new hydraulic model was created during the production of this statewide format FIRM.

This map reflects more detailed and up-to-date **stream channel configurations** than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels, community map repository addresses, and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

If you have **questions about this map**, or questions concerning the National Flood Insurance Program in general, please call **1 - 877 - FEMA MAP** (1-877-336-2627) or visit the FEMA website at http://www.fema.gov/business/nfip.

An accompanying Flood Insurance Study report, Letter of Map Revision (LOMR) or Letter of Map Amendment (LOMA) revising portions of this panel, and digital versions of this FIRM may be available. Visit the **North Carolina Floodplain Mapping Program** website at http://www.ncfloodmaps.com, or contact the **FEMA Map Information eXchange (FMIX)** at 1 -877 - FEMA MAP (1-877-336-2627) or its website at http://www.floodmaps.fema.gov/fhm/fmx_main.html for information on all related products associated with this FIRM.

MAP REPOSITORY
Refer to listing of Map Repositories on Map Index or visit http://www.ncfloodmaps.com.

EFFECTIVE DATE OF FLOOD INSURANCE RATE MAP PANEL

MARCH 2, 2009

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL
- to change Base Flood Elevations and Special Flood Hazard Areas

FEBRUARY 19, 2014
SEPTEMBER 2, 2015

For community map revision history prior to statewide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent, the North Carolina Division of Emergency Management or the National Flood Insurance Program at the following phone numbers or websites:

NC Division of Emergency Management (919) 715-8000 http://www.nccrimecontrol.org/nfip
Charlotte-Mecklenburg Storm Water Services (704) 336-3734 http://stormwater.charmeck.org
National Flood Insurance Program 1-800-638-6620 http://www.fema.gov/business/nfip/

This digital Flood Insurance Rate Map (FIRM) was produced through a unique cooperative partnership between Charlotte-Mecklenburg, the State of North Carolina, the Federal Emergency Management Agency (FEMA), and the U.S. Army Corps of Engineers. Charlotte-Mecklenburg Storm Water Services (CMSWS) has developed a long term approach of floodplain management to decrease the costs associated with flooding. This is demonstrated by CMSWS commitment to map floodplain areas at the local level. As a part of this effort, CMSWS has joined in a Cooperating Technical Community agreement with FEMA and a partnership with the NCFMP to produce and maintain this digital FIRM.

www.ncfloodmaps.com
http://stormwater.charmeck.org

NFIP NATIONAL FLOOD INSURANCE PROGRAM

PANEL 4439L

FIRM

FLOOD INSURANCE RATE MAP

NORTH CAROLINA

PANEL 4439

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

CONTAINS:

COMMUNITY	CID No.	PANEL	SUFFIX
CHARLOTTE, CITY OF	370159	4439	L
MECKLENBURG COUNTY	370158	4439	L
PINEVILLE, TOWN OF	370160	4439	L

REVISED TO REFLECT LOMR EFFECTIVE: June 7, 2023

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 3710443900L

State of North Carolina
Federal Emergency Management Agency