## **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

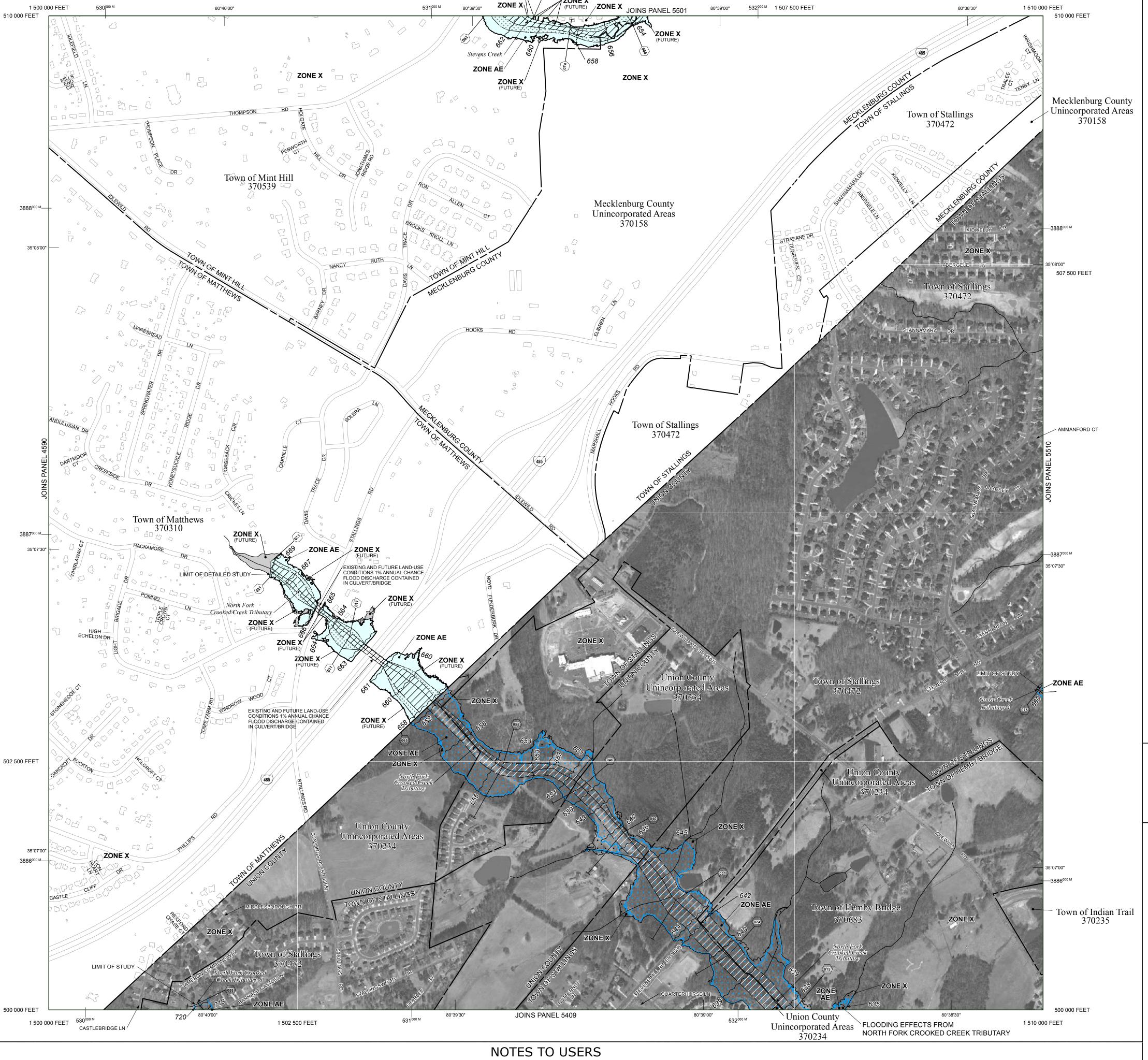
County Average Vertical Datum Offset Table

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.

FLC	Floodw ay Width (feet)			
	Left/Right Distance From			
_			1% Annual Chance	the Center of Stream to
Cross	Stream	Flood Discharge	(100-year)	Encroachment Boundary
Section	Station <sup>1</sup>	(cfs)	Water-Surface ⊟evation	(Looking Downstream)
			(feet NAVD 88)	or Total Floodway Width
NORTH FO	RK CROOK	ED CREEK TR	BUTARY	
015	1,500	1,474	637.5	100 / 125
024	2,368	1,429	639.7	156 / 120
031	3,131	1,397	644.2	146 / 150
040	4,000	1,347	646.5	34 / 118
046	4,619	1,347	650.5	65 / 105
055	5,494	1,325	654.8	50 / 85
065	6,494	1,253	657.9	45 / 80

FLOOD HAZARD DATA TABLE			1% Annual Chance (100-year) Water-Surface ⊟evation (feet NAVD88)		Floodw ay	Community Encroachment Line	
Cross Section	Stream Station <sup>1</sup>	Flood Discharge (cfs)		mater editate devalur (rectif to dec)		Distance in Feet From Center of Stream to	
		Existing Land		Existing Land Use Conditions	Future Land Use Conditions	Encroachment Boundary (Looking Downstream)	
		Use Conditions				Left / Right	Left / Right
NORTH F	ORK CROO	KED CREEK T	RIBUTARY				•
011	1,071	1,136	1,269	663.4	663.9	36 / 50	80 / 145
022	2,133	869	961	669.0	669.2	75 / 23	110 / 25
STEVENS	CREEK					-	
066	6,589	1,140	1,280	654.4	654.7	35 / 20	129 / 22
074	7,404	1,140	1,280	658.7	658.9	15 / 40	15 / 60
082	8,206	1,140	1,280	663.0	663.2	24 / 110	28 / 170





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

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

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.

Base map features shown on this map, such as corporate limits, are based on the most up-todate 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

Program in general, please call 1 - 877 - FEMA MAP (1-877-336-2627) or visit the FEMA website at <a href="http://www.fema.gov.">http://www.fema.gov.</a>

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 <a href="http://www.floodmaps.fema.gov/fhm/fmx\_main.html">http://www.floodmaps.fema.gov/fhm/fmx\_main.html</a> for information on all related products associated with this FIRM.

Refer to listing of Map Repositories on Map Index or visit <a href="http://www.ncfloodmaps.com">http://www.ncfloodmaps.com</a>. EFFECTIVE DATE OF FLOOD INSURANCE RATE MAP PANEL OCTOBER 16, 2008

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL MARCH 2, 2009 – to update flood hazards to reflect seamless statewide mapping

FEBRUARY 19, 2014 – to change Base Flood Elevations and Special Flood Hazard Areas

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

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

Division of Emergency Management or the National Flood Insurance Program at the following phone numbers or

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

MAP REVISED MAP NUMBER FEBRUARY 19, 2014 3710550000L Services Services AND SECTION AND SECTION

State of North Carolina Federal Emergency Management Agency

HEMBY BRIDGE, TOWN OF INDIAN TRAIL, TOWN OF MATTHEWS, TOWN OF MECKLENBURG COUNTY MINT HILL, TOWN OF STALLINGS, TOWN OF UNION COUNTY

**FIRM** 

**PANEL 5500** 

**CONTAINS**: **COMMUNITY** 

**LEGEND** 

INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

water-surface elevation of the 1% annual chance flood.

**ZONE A** No Base Flood Elevation determined.

determined.

increases in flood heights.

**ZONE X** 

**ZONE X** 

**ZONE X** 

\_\_\_\_\_\_\_

\_\_\_\_\_

~~~ 513 ~~~

(EL 987)

23)-----(23)

97°07'30", 32°22'30'

1 477 500 FEET

BM5510

RM\_LSUG14

● M1.5

\* Referenced to the North American Vertical Datum of 1988

Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

OTHER FLOOD AREAS

chance flood.

OTHER AREAS

conditions 1% annual chance floodplain

**ZONE AE** 

**ZONE AH** 

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

**ZONE AR** Special Flood Hazard Area formerly protected from the 1% annual chance

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept

COMMUNITY ENCROACHMENT AREAS (Mecklenburg County)

mile; and areas protected by levees from 1% annual chance flood.

OTHER FLOOD AREAS (Mecklenburg County)

Areas in which flood hazards are undetermined, but possible.

OTHERWISE PROTECTED AREAS (OPAs)

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

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

Mecklenburg County)

CBRS and OPA boundary

Floodway boundary

Zone D boundary

Cross section line

Transect line

1983 (NAD 83)

1% annual chance floodplain boundary

0.2% annual chance floodplain boundary

Elevations, flood depths or flood velocities.

(FIPSZONE 3200, State Plane NAD 83 feet)

visit <a href="http://www.ncgs.state.nc.us">http://www.ncgs.state.nc.us</a>)

http://www.ngs.noaa.gov)

http://www.ncgs.state.nc.us)

Base Flood Elevation line and value; elevation in feet\*

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

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

Areas determined to be outside the 0.2% annual chance floodplain; areas outside future

1% annual chance floodplain boundary (Mecklenburg County)

1% annual chance future conditions floodplain boundary

Community encroachment boundary (Mecklenburg County)

Boundary dividing Special Flood Hazard Area Zones and boundary - dividing Special Flood Hazard Areas of different Base Flood

Base Flood Elevation value where uniform within zone; elevation in

Geographic coordinates referenced to the North American Datum of

North Carolina Geodetic Survey bench mark (for more information

National Geodetic Survey bench mark (for more information visit

NGS-58 GPS 2-5 cm Vertical Control Marks or Contractor-Established NCFMP Bench Marks (for more information visit

Mecklenburg County bench mark (for more information visit

PANEL 5500L

FLOOD INSURANCE RATE MAP

(SEE LOCATOR DIAGRAM OR MAP INDEX FOR FIRM PANEL

370235

370158

370539

370234

370472 5500

NORTH CAROLINA

ftp://ftp1.co.mecklenburg.nc.us/luesa/stormwater/FIRM Reference Marks/)

1000-meter Universal Transverse Mercator grid ticks, zone 17 2500-foot grid values: North Carolina State Plane coordinate system

less than 1 square mile; and areas protected by levees from 1% annual

free of encroachment so that the 1% annual chance flood can be carried without substantial

protection from the 1% annual chance or greater flood. **ZONE A99** Areas to be protected from 1% annual chance flood by a Federal flood

SPECIAL FLOOD HAZARD AREAS (SFHAS) SUBJECT TO

Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations

Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average

depths determined. For areas of alluvial fan flooding, velocities also

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 system under construction; no Base Flood Elevations determined. Coastal flood zone with velocity hazard (wave action); Base Flood Elevations

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 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 information on flood control structures in this jurisdiction. channel configurations. As a result, the Flood Profiles and Floodway Data tables in the Flood Base map information and geospatial data used to develop this FIRM were obtained from Insurance Study report (which contains authoritative hydraulic data) may reflect stream channel various organizations, including the participating local community(ies), state and federal distances that differ from what is shown on this map. agencies, and/or other sources. The primary base for this FIRM is aerial imagery acquired by the State and planimetric base map information obtained from Mecklenburg County GIS Department. Please refer to the separately printed Map Index for an overview map of the county showing the The time period of collection for the imagery is 2010. The time period of collection and 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 maintenance for the Mecklenburg planimetric base map information is current as of 2011. Information and geospatial data supplied by the local community(ies) that met FEMA base map panels on which each community is located. specifications were considered the preferred source for development of the base map. See FIRM for purposes of construction and/or floodplain management. geospatial metadata for the associated digital FIRM for additional information about base map If you have questions about this map, or questions concerning the National Flood Insurance

An accompanying Flood Insurance Study report, Letter of Map Revision (LOMR) or Letter of Map