

Manager's Update

raleighnc.gov



Issue 2024-32

August 16, 2024

IN THIS ISSUE

**Stormwater Community Rating System and Substantial Damage Management Plan
Visualization of Property Values in Raleigh
GoRaleigh Station (Craig Building) Renovation Activities
GoRaleigh September Service Changes
GoRaleigh Transit - Return to Fare Collection - Update
Weekly Digest of Special Events**

Council Follow Up Items

No Items This Week

INFORMATION:

Regular Council Meeting Tuesday, August 20; Lunch Work Session at 11:30 - Lunch Will be Provided

Council will meet in regular work session at **11:30 A.M.** in the **Council Chamber**. Please note the agenda for the lunch work session is included with the regular meeting agenda and may be accessed via the BoardDocs electronic agenda system:

<https://go.boarddocs.com/nc/raleigh/Board.nsf/Public>

The **regular** Council meeting begins at **1:00 P.M.**

Please note there will be a **Closed Session** immediately following the afternoon session of the Council meeting.

Reminder: If there is an item you would like to pull from the consent agenda for discussion, please e-mail mayorstaff@raleighnc.gov by 11 A.M. the day of the meeting.

GoRaleigh Service Changes to Begin Next Month

Staff Resource: David Walker, Transportation, 996-3942, david.walker@raleighnc.gov

Beginning September 8, GoRaleigh transit will implement service changes that include a new high-frequency route, increasing 15-minute service across two routes, adding weekend service and names changes for specific routes.

Routes 13 and 22 will be retired and replaced with the new high-frequency routes, Route 5 (15-minute frequency); Route 21 (15-minute frequency); and Route 20 (30-minute frequency). Route 19 (Martin Luther King) will also supplement this service with 15-minute frequencies along the length of Martin Luther King Jr Boulevard. Additional information is available in the staff memorandum included with the *Update* materials.

(Attachment)

GoRaleigh Transit - Return to Fare Collection - Update

Staff Resource: David Eatman, Transportation, 996-4040, david.eatman@raleighnc.gov

Council will recall that as of July 1, GoRaleigh staff and operators have been preparing to resume fare collection on all transit routes, as discussed during budget deliberations in June. During the month of July, passengers have been encouraged to “Find Your Fare” when boarding. Payment options for passengers include new digital ticketing (via the Umo smart public transportation software app and mobility platform) and a convenient pass for income-qualified riders to ride fare free. Existing pre-pandemic fare options have remained available during the transition period.

During the month of August, passengers have been requested to “Practice Your Pass” using their preferred fare payment method. The intent is to get riders accustomed to using passes to board the bus. Riders will not have to pay a fare but are required to utilize some form of payment method to ride during August. GoRaleigh transit has provided riders with a free promo code through the Umo mobile ticketing or been provided a free Day Pass in the alternative. Riders with the Umo app installed on a smartphone can “tap and go” when boarding the bus, provided the passenger has a registered account and an associated debit or credit card.

During the month of September, riders can use the payment method of choice to board the bus and start their journey. Staff and operators will continue to educate riders, who will be encouraged to find a fare of their choice for boarding the bus. The goal is for everyone to know the options and the availability of fare resources starting prior to the resumption of fare collection in October.

As of August 14th, the following number of people have registered and received free fares for the following programs:

- GoRaleigh Youth Pass = 129
- GoRaleigh Senior Pass = 857
- GoRaleigh Transit Assistance Pass (TAP) = 6,070
- GoRaleigh Access Transit Assistance Pass (TAP) = 481

Transit staff have worked closely with the Continuum of Care (CoC) agencies in the area to help members sign up for the GoRaleigh TAP program. Staff held a training for the CoCs on July 17. More than 45 CoC staff

members attended the training. Combined, CoC organizations have requested 2,500 TAP passes, and passes were provided by July 23.

Transit continues to communicate information regarding returning to fares through multiple outlets. These outlets include:

- Community engagement events (meeting people where they are)
- Newsletters
- Signage at GoRaleigh Station
- 101.5 – Radio (paid)
- Facebook – Social Media (paid)
- The Carolinian – Digital (paid)
- Que Pasa – Digital / Print (paid)
- Display on Bus Digital Monitors
- Press Release
- La Ley – Radio (paid)
- Foxy 107 – Radio (paid)
- Instagram – Social Media (paid)
- La Notica – Digital (paid)
- Raltoday – Digital (paid)

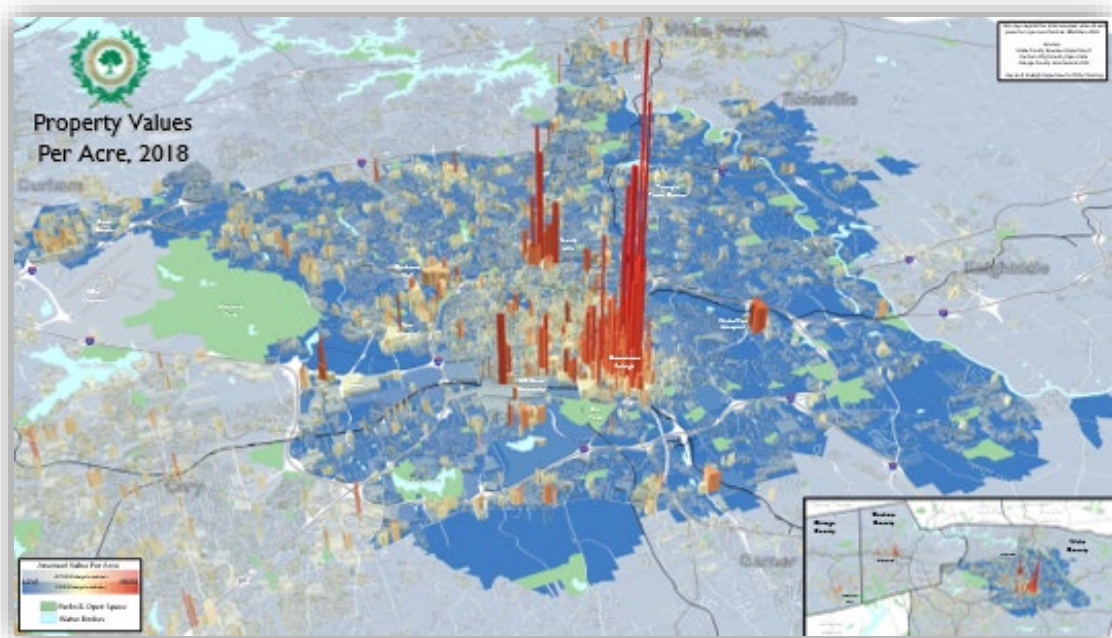
Transit continues to partner with GoTriangle and the Wake Transit Transportation Planning Advisory Committee (TPAC) on messaging and available communication outlets.

(No attachment)

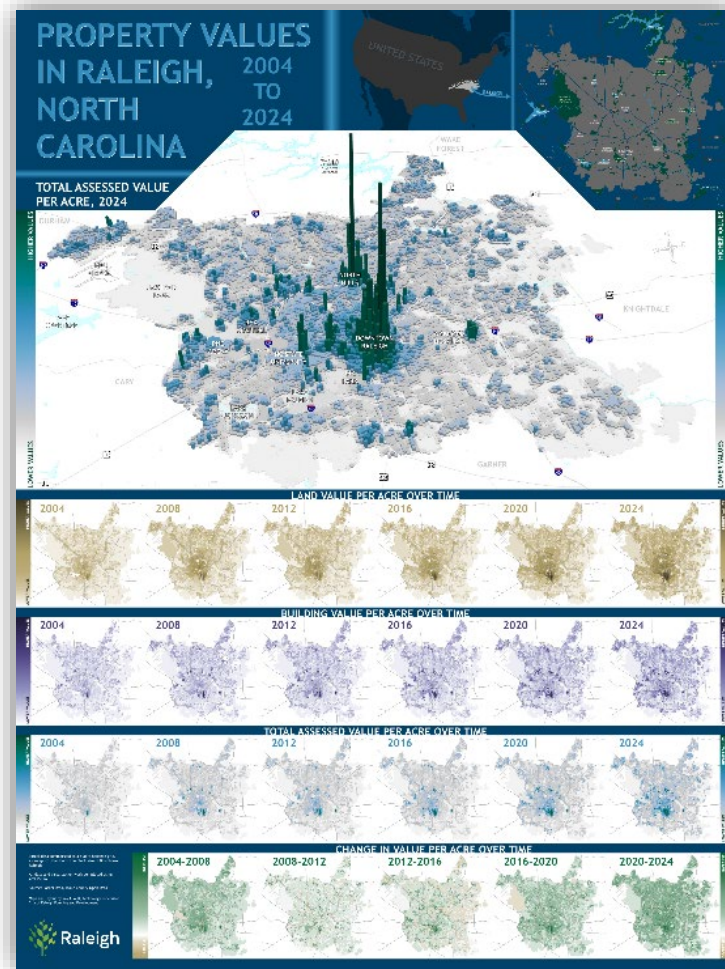
Visualization of Property Values in Raleigh

Staff Resource: Ray Aull, Planning and Development, 996-2163, ray.aull@raleighnc.gov

Over the years city staff have prepared several 3D visualizations of property values in the City as a presentation tool for communicating the value of more efficient land uses. The most recent of those was created in 2018. These were generally created as one-off visuals for presentations but also got picked up and published by Downtown Raleigh Alliance in the annual [State of Downtown report](#).



The City Manager's Office recently received a request for an updated version of this map. While not a direct full revision, City staff did recently produce an updated 2024 visualization of property values in the City as a poster to share at the 2024 Esri User Conference, where the [City just won the Enterprise GIS Award](#).



The [full version of this poster is available](#) via the Esri Map Gallery, and a portion will soon be published in the report of Downtown Raleigh Alliance's 2024 State of Downtown [scheduled for publication August 28](#). As well, City staff are discussing the best ways to use this information in preparation for work associated with the [next Comprehensive Plan](#), where the visual will likely appear in supporting materials.

(No attachment)

Stormwater Community Rating System and Substantial Damage Management Plan

Staff Resource: Ben Brown, Engineering Services, 996-3515, ben.brown@raleighnc.gov

The Community Rating System (CRS) is a voluntary incentive program that recognizes and encourages community floodplain management activities that exceed minimum National Flood Insurance Program (NFIP) requirements. By participating in the CRS, communities can improve their flood resilience and reduce flood insurance premiums for residents. The City is poised to enter the CRS, marking a significant step

towards enhancing flood management efforts and providing economic benefits to residents. By joining this program, Raleigh aims to build upon current floodplain management strategies, ensuring greater safety and sustainability of the community. This initiative not only demonstrates unwavering commitment to environmental stewardship but also promises to bring about a potential for substantial savings on flood insurance premiums for homeowners, fostering a more resilient and economically vibrant community. Included with the *Update* materials is a staff memorandum which provides additional detail and the damage management plan document.

(Attachment)

GoRaleigh Station (Craig Building) Renovation Activities

Staff Resource: David Eatman, Transportation, 996-4040, david.eatman@raleighnc.gov

The Transit Division has received some inquiries regarding the renovation activities occurring at the Craig Building at GoRaleigh Station. The Craig Building occupies the space above the breezeway from Wilmington Street into GoRaleigh Station.



Craig Building

In September 2018, the Craig Building experienced a significant roof failure during Hurricane Florence. The space had significant water damage and became unusable for existing GoRaleigh operational activities. Staff coordinated emergency repairs immediately after the storm to stabilize the interior, demo damaged areas, and operate dehumidifiers to mitigate water damage. Transit replaced the roof in November 2018 and began to program funding for comprehensive renovations.

The Craig Building renovation began in June of this year and is now more than 25% complete. The space is designed to provide a break room for GoRaleigh bus operators with scheduled extended breaks. It will also be divided to provide a secure space for the Raleigh Police Department (RPD) to complete reports and other activities that support safety and security activities at GoRaleigh Station and the greater area of Downtown Raleigh. The space for RPD will not be a police substation and will not be staffed by RPD personnel around

the clock. Individuals seeking police services should call 911 or visit the RPD Downtown District office located at 218 W Cabarrus Street, which is staffed 24 hours a day.

The renovation to the Craig Building is scheduled for completion in November of this year.

(No attachment)

Weekly Digest of Special Events

Staff Resource: Sarah Heinsohn, Office of Special Events, 996-2200, sarah.heinsohn@raleighnc.gov

Included with the *Update* materials is the special events digest for the upcoming week.

(Attachment)

Council Member Follow Up Items

No Items This Week

To	Marchell Adams-David, City Manager
Thru	David Eatman, Assistant Transportation Director - Transit
From	David Walker, Transportation Manager
Department	Transportation
Date	August 16, 2024
Subject	GoRaleigh September Service Changes

On September 8 GoRaleigh will increase services for the third time this calendar year. Funding through the Wake Transit half-cent sales tax continues to be strong allowing GoRaleigh to continue growth in one of the Four Big Moves from the Wake Transit Plan, increasing our frequent, reliable urban network. In January 2024 GoRaleigh had 40 miles of High Frequency Network routes (defined as service operating every 15 minutes for at least 12 hours per day). In May 2024 the network increased to 80 miles and in September we will have over 100 miles of service operating every 15 minutes.

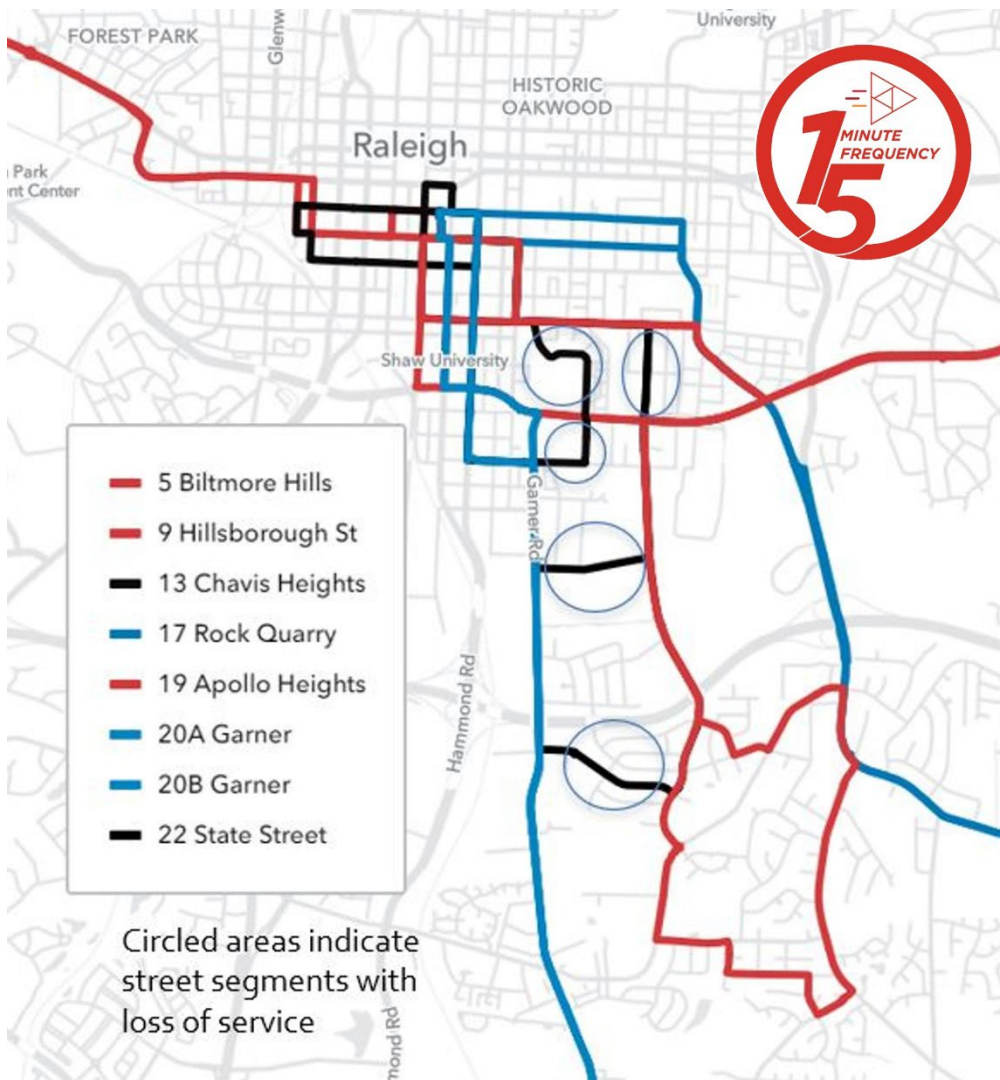
September changes include two routes joining the High Frequency Network and one route completing its status of High Frequency. Route 5 Biltmore Hills (existing service) and route 9 Hillsborough Street (new service) join the High Frequency Network with 15-minute frequencies seven days a week. Route 9 will also provide direct service between GoRaleigh Station and Raleigh Union Station as it enters and exits downtown.

Route 21 Caraleigh increases its frequencies from 30 minutes on weekends to 15 minutes. This completes the High Frequency Network status of this route. Route 20 Garner begins weekend service (currently Monday-Friday only) operating every 30 minutes. This new service provides additional coverage along Garner Road, Bragg Street and Person Street on weekends.

With three new southeast Raleigh routes reaching High Frequency Network status and the new weekend service on route 20 Garner, two of our GoRaleigh legacy routes will be retired. With the changes above (including a previous service increase on route 19 Martin Luther King), routes 22 State Street and 13 Chavis Heights will be retired from

service. This service area is now surrounded by our High Frequency Network routes 5, 19 and 21. With the addition of our new 20 Garner service on weekends, we will complete the full Wake Transit Plan upgrade in service for the SE Raleigh area. Most of the stops on these two routes have duplicate service along portions of the route and none of the street segments that lose service have stops that are more than ¼ mile from another route.

Other minor route changes occurring in September are route 6 Crabtree is being renamed to 6 Glenwood and route 70X Brier Creek Express is renamed 70L Brier Creek since it now has many new mid-route stops along its path. Click [here](#) for a full list of Service Changes.



To	Marchell Adams-David, City Manager
Thru	Richard Kelly, Engineering Services Director
From	Benjamin Brown, Engineering Services
Department	Engineering Services
Date	August 16, 2024
Subject	Council Informational Item – Community Rating System Plan Update for August 2024

The Community Rating System (CRS) is a voluntary incentive program that recognizes and encourages community floodplain management activities that exceed the minimum National Flood Insurance Program (NFIP) requirements. By participating in the CRS, communities can improve their flood resilience and reduce flood insurance premiums for their residents.

The City of Raleigh is poised to enter the CRS, marking a significant step towards enhancing our flood management efforts and providing economic benefits to our residents. By joining this program, Raleigh aims to build upon our current floodplain management strategies, ensuring greater safety and sustainability for our community. This initiative not only demonstrates our unwavering commitment to environmental stewardship but also promises to bring about substantial savings on flood insurance premiums for homeowners, fostering a more resilient and economically vibrant community.

As part of The City of Raleigh entering the CRS program, City Stormwater Staff has proactively developed a comprehensive Substantial Damage Management Plan to elevate our post-storm recovery efforts. The plan is designed to assess and manage properties that suffer substantial damage efficiently, ensuring a swift and strategic response to mitigate further risk and facilitate recovery. This approach helps protect our residents and their properties and contributes to the City's resilience and long-term sustainability. The attached plan will be publicly available on the City's website (<https://raleighnc.gov/stormwater/services/know-your-flood-risks>) on Monday August 19, 2024.



SUBSTANTIAL DAMAGE MANAGEMENT PLAN 2024

Engineering Services

Raleigh Stormwater

raleighnc.gov



Contents

Introduction	1
Regulatory and Legislative Authority	1
Assessment of Vulnerability to Substantial Damage	1
Prior Substantial Damage.....	2
Properties Vulnerable to Substantial Damage.....	2
The Substantial Damage Management Team	3
Post-Flood Actions	4
Substantial Damage Determination Process.....	5
Notifications.....	5
Violations and Enforcement.....	5
Appeal Process.....	6
Pre-Event Action on Substantial Damage	6
Evaluation of the Plan	6
The Property Database	7
Populating FEMA's SDE Tool	8
Appendix	9
Section 1 – Definitions.....	9
Section 2 – FRP Bags.....	12
Section 3 – Repetitive Loss Areas	17

INTRODUCTION

As a member of the National Flood Insurance Program (NFIP), the City of Raleigh, North Carolina, is mandated to evaluate substantially damaged properties following any hazardous event, such as flooding, wind storms, fires, and other events that cause damage to a structure. As the administering agency for the City of Raleigh's Floodplain Management Ordinance, the Floodplain Management Section of the City's Stormwater Division has prepared this Substantial Damage Management Plan to identify potentially vulnerable structures and plan for post-event actions should the structures be substantially damaged by flooding.

This plan was submitted to the *City of Raleigh Council and City Manager's Office* on August 16, 2024.

This comprehensive plan is available for transmittal to the Federal Emergency Management Agency (FEMA) Regional Office, Region IV, and to the North Carolina NFIP State Coordinating Office from the City of Raleigh Floodplain group, which can be reached by calling 919-966-3777 or via email at floodplain@raleighnc.gov.

Regulatory and Legislative Authority

The City of Raleigh has adopted cumulative substantial damage regulations through its Floodplain Management Ordinance. The Stormwater Division closely tracks cumulative substantial damage and substantial improvements over a five-year rolling period. The City's substantial damage language is established in the Unified Development Ordinance (UDO) Chapter 9, Article 9.3. Special Flood Hazard Area Regulations, and defined in Ordinance Chapter 12, Article 12.2. Definitions, adopted in 2013 and amended as needed to meet the changing requirements of the City in accordance with the standards and procedures in Sec. 10.2.2. can be found in Section 1 of the Appendix. This commitment to adaptability ensures that the City's regulations are always in line with the latest standards and procedures.

Assessment of Vulnerability to Substantial Damage

Substantial improvements within the City of Raleigh are tracked during the permitting process in EnerGov, a permitting and licensing software. All permit applications for structures on the Flood Hazard Boundary Map are screened to determine if the proposed construction activity would result in a substantial improvement determination. The Flood Hazard Boundary Map(s) consists of the FEMA Special Flood Hazard Areas and 1% Future Condition Flood Hazard Areas on the Flood Insurance Rate Map (FIRM), drainage basin study maps, flood hazard soils, additional distance requirements, and flood storage areas required by the UDO.

As per UDO Section 11.4.6. Limitations on Issuance of Permits for Construction in Flood-prone Areas: no building permit shall be issued for any new construction or substantial improvement of residential structures located or to be located in an SFHA, delineated as provided in Article 9.3. Special Flood Hazard Area Regulations, unless the lowest floor (including basement) and attendant mechanical, electrical, heating, ventilation, and air conditioning equipment, and any other service facility is elevated at least to the regulatory flood protection elevation. A registered professional engineer or architect shall certify on the building plans that all parts of the structure below the regulatory flood protection elevation are designed to withstand the flood depths, pressure, velocities, impact, and uplift forces associated with the one-hundred-year flood at the location of the structure. All new construction and substantial improvements that fully enclose areas below the regulatory flood protection elevation, which are usable solely for parking of vehicles, building access, or storage in an area other than a basement and which are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of flood waters. Designs for meeting this requirement must be certified by a registered professional engineer or architect. Prior to the use or occupancy of the structure, a registered land surveyor shall certify the elevation of the lowest floor to the nearest 1/10 of 1 foot in the mean sea level datum.

Prior Substantial Damage

Several large river systems drain through the City of Raleigh, including Crabtree Creek, Walnut Creek, and the Neuse River. As a result, the community's primary flood risk areas include considerable reaches of riverine floodplain. Residential, commercial, and industrial developments in floodplain areas are subject to riverine and flash flooding during various storms, including hurricanes, tropical storms, and other heavy rain events. Certain areas throughout the City are also subject to local drainage flooding due to stormwater conveyance and storage capacity issues.

The City of Raleigh has a long history of flooding, particularly in low-lying areas and along streams during periods of heavy rain. Over the last several decades, increasing development and, therefore, impervious areas have led to more frequent flash flooding that can occur suddenly, posing a significant risk to many areas of the community. The City's vulnerability to flooding has been documented over the years, with instances of both slow-rising river floods and rapid flash floods.

The most severe storm to impact the City in recent history was Hurricane Fran in September 1996, which caused significant flooding, power outages, road closures, and structural damage across Raleigh. Hurricane Matthew in October 2016 brought historic rainfall amounts to North Carolina. Still, the City of Raleigh only received approximately 7 inches of rain and experienced relatively minimal flooding impacts compared to other areas of the State.

Hurricane Fran brought heavy rains and high winds to the Piedmont region of North Carolina, leading to widespread flooding and wind damage across the City of Raleigh. Once conditions were deemed safe following the storm, substantial damage determinations were issued for many residential and commercial properties.

Properties Vulnerable to Substantial Damage

Properties vulnerable to becoming substantially damaged include critical facilities located in the floodplain and properties within designated repetitive loss areas, as seen in the map found in Section 3

of the Appendix. Critical facilities include schools, medical facilities, fire and police stations, water and wastewater distribution systems, and other emergency operations facilities cataloged in the North Carolina Risk Management Portal. The City's repetitive loss areas were developed to include properties on FEMA's Repetitive Loss List and adjacent properties with comparable flood risk based on mapped flood zones and recorded local drainage issues. The property list comprises a relatively even mix of residential, commercial, and non-residential buildings. Most residential buildings are single-family dwellings built slab-on-grade or on a crawl space.

The City's substantial damage property database contains a list of properties in spreadsheet format. The Floodplain Management group maintains a map of potential substantial damage properties in GIS and PDF format. The data stored for each property is further discussed in the Property Database section of this plan.

Properties listed as vulnerable to substantial damage are reviewed and updated annually by the City's Floodplain Management group. Updates to the property list and map are made as needed based on official flood map changes, new mapping generated during watershed planning studies, flood insurance claims and repetitive loss data analyses, drainage complaints, flooding observations during storm events, and changes to infrastructure as the result of completed capital improvement projects and other flood mitigation efforts.

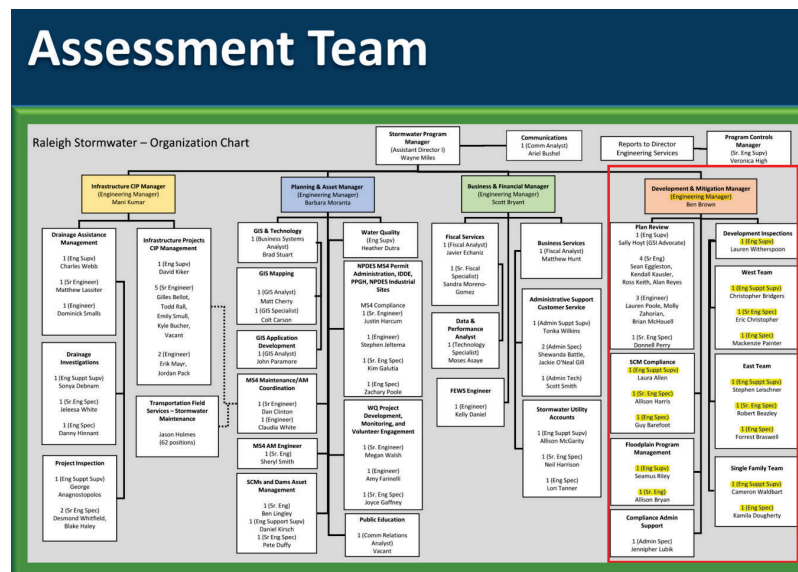
The Substantial Damage Management Team

The substantial damage assessment team was formed by selecting positions that required relevant experience and applicable training certification requirements.

Team Members and Primary Responsibilities During Assessment Operations

- 1 Engineering Manager - Damage assessments
- 2 Engineering Supervisors - Damage assessments
- 4 Engineering Support Supervisors - Vehicle operations and/or damage assessments
- 1 Senior Engineer – Damage assessments
- 3 Senior Engineering Specialists – Vehicle operations and/or photography
- 4 Engineering Specialists – Vehicle operations and/or photography

If additional team members are needed, they will be pulled from other divisions within the Engineering Services Department.



The Stormwater Division has fifteen city-owned vehicles available for substantial damage assessments. As there are five three-person teams, the majority of the designated vehicle fleet will not be required unless impacts are significant and additional team members are required.

Post-Flood Actions

Substantial Damage Determination Process

Following an impact event in the City of Raleigh, a comprehensive approach to substantial damage assessment is undertaken. A fifteen-member inspection team comprising Stormwater Division employees, many Certified Floodplain Managers (CFM), is mobilized to assess damage across the City. This effort involves collaboration among various divisions within the Engineering Services Department.

The City is divided into four quadrants, each assigned dedicated teams for conducting windshield surveys and damage assessments within the regulatory floodplain. Data collected during these assessments is meticulously recorded using FEMA's Substantial Damage Estimator Tool preloaded on City laptops. Physical assessment forms are available in the event of technical issues. All data recorded

on paper forms will be uploaded to the tool as soon as possible. Substantial damage determinations are made using output results from the tool.

The data is immediately incorporated into the City of Raleigh's EnerGov permitting process so that all new permit applications can be cross-referenced with this data. In all instances of property improvements, the City of Raleigh upholds its commitment to safety and compliance by continuing with existing cumulative substantial improvement protocols.

It is important to note that these procedures may vary depending on the specific requirements of the situation and the entities involved in the survey process. However, the City of Raleigh ensures adherence to standardized protocols and best practices to guarantee consistency, accuracy, and effectiveness in assessing substantial damage.

During the assessment phase, team members distribute Flood Response Preparedness (FRP) bags to every substantially damaged structure in the regulatory floodplain. The bags contain information on the importance of knowing your flood hazards, having flood insurance, how to property people and property, grants and mitigation options, and protecting natural floodplain functions. Refer to Section 2 of the Appendix for specific examples of content included in FRP bags.

Notifications

The City notifies property owners of substantial damage determinations by email and through the messaging portal in EnerGov. This includes detailed instructions on the repairs or modifications needed to bring the property into compliance with current floodplain regulations, applicable deadlines, and any relevant findings from inspectors or assessments. In addition to notifications via email and EnerGov, the City delivers physical copies of substantial damage determinations when multiple structures are affected during the same event. Monthly monitoring details begin 30 days after a substantial damage determination is issued.

Violations and Enforcement

If a property owner or responsible party is found in violation of the building code, they are subject to an initial civil penalty of \$50.00. This penalty must be paid within 48 hours of receiving a citation for the violation. The citation serves as formal notice of the violation and the associated penalty. If the initial \$50.00 penalty is not paid within the 48-hour period, an additional penalty of \$25.00 is imposed. This additional penalty applies if the City initiates a civil action to recover the owed amount. The total penalty, therefore, can increase if the violation remains unaddressed.

The City of Raleigh has the authority to accept full payment of all penalties owed in settlement of the civil claim. However, this settlement is contingent upon the property owner or responsible party addressing the violation. The City will only accept payment if the violation has been abated or otherwise brought into compliance with the regulations. For ongoing violations, each day the violation continues constitutes a separate offense. To address a continuing violation, the City must first issue a written notice to the property owner or responsible party. This notice is delivered through personal service, registered mail, or certified mail with a return receipt requested. It details the nature of the violation, the required corrective actions, and the deadline for completing these actions. The notice also warns that failure to comply within the specified time frame will result in additional civil penalties.

If the corrective actions are not completed within the period specified in the notice and after any appeals are heard, the City will assess additional penalties. These penalties amount to \$100.00 per day

for the continuing violation. This daily penalty continues until the violation is resolved or compliance is achieved.

Appeals Process

Property owners who disagree with a determination of substantial damage have the right to an appeal. Appeals require the property owner to submit a single, itemized contract for repairs required to return the structure to the pre-damaged condition and/or a Broker's Option of Value, depending on the characteristics of the appeal. Property owners can also appeal the requirements resulting from a substantial damage determination by providing an Elevation Certificate showing the property already complies with current elevation standards.

Pre-Event Action on Substantial Damage

The City of Raleigh has developed a comprehensive training program for the Substantial Damage Management Team to ensure they are proficient in using FEMA's Estimator Tool and in determining substantial damage. This program consists of multiple two-hour training sessions held each year that focus on the following:

1. FEMA's Estimator Tool Training

- Introduction and Overview: Basics of the tool, including navigation and primary functions.
- Data Entry and Analysis: Step-by-step guidance on entering data and interpreting the results.
- Exercises: Practical exercises using real-life scenarios to apply the tool effectively.
- Troubleshooting: Common issues and resolutions.

2. Determining Substantial Damage:

- Regulatory Framework: Understanding FEMA's criteria for substantial damage.
- Assessment Techniques: Evaluating damage and substantial damage thresholds.
- Documentation and Reporting: Documenting practices and reporting accurately.

Through interactive workshops, team members participate in simulated damage assessments to gain the skills and knowledge needed to efficiently and effectively use FEMA's Estimator Tool to make substantial damage determinations. Team members are provided guidance material to use during training and in the field.

Evaluation of the Plan

Annual evaluation reports are available for transmittal to the FEMA Regional Office, Region IV, and the North Carolina NFIP State Coordinating Office. The plan and annual update reports are publicly available on the City's website. Requests for physical or digital copies can be made over the phone by calling the Floodplain Management group at 919-966-9777 or via email at floodplain@raleighnc.gov.

The Substantial Damage Management Plan's annual evaluation involves a comprehensive review of its effectiveness, accuracy, and relevance. The Floodplain Management group conducts the review. The resulting report is distributed to all City Council members, the City Manager, and relevant City departments.

Review stages:

1. Analyze the plan's implementation data, including the total number of substantial damage cases addressed over the last year, and the continuing vulnerability of all the structures in the SFHA. Update property database. This stage also involves updating the property database as needed.
2. Review and substitute team members as needed. Confirm team member responsibilities for the next cycle year.
3. Revise annual training content and techniques as needed.
4. Collect feedback from local officials and team members regarding the procedures and methodologies utilized during plan implementation.
5. Assess the procedures outlined in the plan to ensure they remain effective, current, and logistically practical.
6. Identify and address any issues or gaps in the plan based on experiences and feedback.

The annual evaluation is conducted during the first quarter of the year to ensure the revised plan is ready for implementation before hurricane season begins.

The Property Database

The City's substantial damage property database contains a list of properties in Excel spreadsheet format. The spreadsheet is stored on the Stormwater Division's SharePoint site and updated annually by the Floodplain Management group.

The following information is stored for each property in the database:

- | | |
|-----------------------------------|---|
| - Latitude and longitude | - Structure Type |
| - Parcel PIN | - Year Built |
| - Property Owner Name | - Square Footage |
| - Street Number, Name, and Suffix | - FIRM Date, Panel, and Suffix |
| - City, State, and Zip Code | - FIRM Zone |
| - NFIP Community Name and ID | - FIRM Zone Detail (Floodway, Future Conditions etc.) |
| - County | - Base Flood Elevation |

Data was obtained from the Wake County and Durham County tax databases, the North Carolina Flood Risk Information System, and the City of Raleigh building GIS layer. Surveyed lowest floor elevations may be added as the data becomes available through City watershed planning study efforts and other capital improvement projects.

To ensure the privacy of personally identifiable information, all property data is stored in an internal database inaccessible to the public. Repetitive loss properties are not individually identified in the database but are included in broader repetitive loss area polygons.

Populating FEMA's SDE (SDP2 Credit)

The Floodplain Management group reviewed the properties identified in Step 1 of the SDP and the data gathered in Step 4 of the SDP to ensure that all of them were included in the SDE. The group's senior engineer located and compiled the information for each property, ensured that it was in the necessary format, and entered the data into FEMA's SDE software.

The screenshot shows the 'Property Details' and 'NFIP Information' sections of the SDE software. The 'Property Data' section includes fields for:

- Structure Owner Full Name: WOLFE, ANDREW P ACORN, GARDNER C
- Parcel Number: 1512270040
- Street Number: 1512
- Year of Construction: 1998
- Street Name: WOLF
- City: RALEIGH
- State: NC
- Zip: 27603
- County/Parish: Wake
- Latitude: 35.851401
- Longitude: -78.782000
- Structure Type: Residential

 The 'NFIP Information' section includes fields for:

- NFIP Community Name: 13040
- City of Change: 13040
- NFIP Community ID: 13040
- FIRM Panel Number: 13040
- FIRM Zone: AE
- Date of FIRM Panel: 1/1/2000
- Latitude: 35.851401
- Longitude: -78.782000
- Map Sheet Elevation: 13040
- Regulatory Floodway: No

Example Property Data Imported into the SDE Tool

The following items of information were not available at the time of populating the SDE:

- Apartment/Unit
- Subdivision
- Lowest floor elevation

This information is missing because apartment/unit and subdivision information is not stored in the Wake and Durham County tax database GIS layers. Lowest floor elevations are not collected or stored for every structure in the City and become available through watershed studies or capital improvement projects. These elevations will be added to the database as they become available annually.

The SDE database is stored on the Stormwater Division's SharePoint site and is updated annually by the Floodplain Management group.

Appendix

Section 1 - Definitions

UDO Article 12.2. Definitions define the following terms and responsibilities:

ADDITION (to an existing building): Any walled and roofed expansion to the perimeter of a building in which the addition is connected by a common load-bearing wall other than a fire wall. Any walled and roofed addition connected by a fire wall or separated by independent perimeter load-bearing walls is "new construction."

ADMINISTERING AGENCY: The City of Raleigh Floodplain Management Group.

BASE FLOOD: The flood having a 1% chance of being equaled or exceeded in any given year.

BASE FLOOD ELEVATION (BFE): A determination of the water surface elevations of the base flood based on current conditions hydrology or future conditions hydrology as published in the flood insurance study. When the BFE has not been provided in a special flood hazard area, it may be obtained from engineering studies available from a Federal or State other source using FEMA approved engineering methodologies. This elevation, when combined with 2 additional vertical feet establishes the regulatory flood protection elevation in special flood hazard areas.

DEVELOPMENT (in a Special Flood Hazard Area): Development in a special flood hazard area is any man-made change to improved or unimproved real estate, including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, or storage of equipment or materials.

ELEVATED BUILDING: An above-ground building built to have the top of the elevated floor above the ground by means of pilings, columns (posts and piers), shear walls parallel to the flow of water; and adequately anchored so as not to impair the structural integrity of the building during a flood up to the magnitude of the base flood. Elevated building also includes a building elevated by means of fill or solid foundation perimeter walls with openings sufficient to facilitate the unimpeded movement of floodwaters.

FLOOD HAZARD BOUNDARY MAP: The official map of the City on which appears a description of the boundaries of special flood hazard areas, including representations of the floodway, floodway fringe, future conditions flood hazard areas. The map is applicable to the community within the corporate limits and within the extraterritorial jurisdiction of the City. The flood hazard boundary map(s) consist of flood insurance rate maps and drainage basin study maps, flood hazard soils plus additional distances required in this UDO and recorded flood storage areas required by this UDO. The floodway areas, floodway fringe areas and future conditions flood hazard areas shown and illustrated on floodway hazard boundary maps are hereby adopted as official flood hazard boundary maps and floodway maps for the City and extraterritorial jurisdiction of the City. These maps and other data are hereby incorporated herein by reference and duly made a part of this chapter. The most recent maps and data officially approved by the City Council are identified in the evidence of the Council's action and are kept on file with the City for public inspection.

FLOOD HAZARD SOILS: Those types of soils in the relatively flat areas associated with natural watercourses that are subject to periodic flooding. The types of soils and their corresponding symbols are as follows:

Name	Map Symbol
Altavista fine sandy loam, 0% to 4% slopes	AfA
Augusta fine sandy loam	Au
Buncombe soils	Bu
Chewacla soils	Cm
Congaree fine sandy loam	Co
Congaree silt loam	Cp
Mantachie soils	Me
Roanoke fine sandy loam	Ro
Wahee fine sandy loam	Wh
Wehadkee silt loam	Wn
Wehadkee and Bibb soils	Wo

FLOOD INSURANCE RATE MAP (FIRM): An official map of the city on which appears a description of the boundaries of special flood hazard areas, including representations of the floodway, floodway fringe, future conditions flood hazard areas and a delineation of the risk premium zones applicable to the community within the corporate limits and within the extraterritorial jurisdiction of the City. The flood insurance study, Wake County, Federal Emergency Management Agency, latest publication, consisting of (i) flood insurance rate maps and (ii) other pertinent data furnished by the Federal Emergency Management Agency (FEMA) and the U.S. Army Corps of Engineers, to the City, showing and illustrating floodway areas, floodway fringe areas and future conditions flood hazard areas are hereby adopted as official flood hazard boundary maps and floodway maps for the City and extraterritorial jurisdiction of the City. These maps and other data are hereby incorporated herein by reference and duly made a part of this UDO. The most recent maps and data officially approved by the City Council are identified in the evidence of the City Council's action and are kept on file in Engineering Services for public inspection.

FLOOD OR FLOODING: The general and temporary condition of partial or complete inundation of normally dry land areas from the overflow of streams, rivers or other inland water.

FLOODPLAIN ADMINISTRATOR: The individual appointed to administer and enforce special flood hazard area regulations.

REGULATORY FLOOD PROTECTION ELEVATION (RFPE): The elevation to which structures and uses within floodway fringe areas and future conditions flood hazard areas are required to be elevated or floodproofed. Within areas which have approved engineered flood studies, such as the FEMA flood insurance study and floodway fringe areas, this elevation will be the "without floodway" base flood elevation plus 2 additional vertical feet. Base flood elevations are shown in the flood insurance study for Wake County, Volumes 1 through 7. Within future conditions flood hazard areas, this elevation will be the future conditions flood elevation plus 2 additional vertical feet. Future conditions flood elevations are shown in the flood insurance study for Wake County, Volumes 1 through 7. For flood hazard soil areas and for areas without established flood elevations within watercourses which drain 1 square mile or more, this elevation is the topographic contour lying 5 vertical feet from the outermost boundaries of either the flood hazard soils or the made land, which traverse such soils. The regulatory flood protection elevation for flood hazard soil areas and for areas without established flood elevations

within watercourses which drain less than 1 square mile is the elevation of the outermost boundaries of either the flood hazard soils or the made land which traverse such soils plus 2 additional vertical feet, or as determined from a flood hazard soil interpretation. The regulatory flood protection elevation shall be the base flood elevation established on the drainage basin study maps plus 2 additional vertical feet.

SUBSTANTIAL DAMAGE: Damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50% of the market value of the structure before the damage occurred.

SUBSTANTIAL IMPROVEMENT: Any reconstruction, repair, rehabilitation, addition or other improvement of a structure, the cost of which over a 5 year period singularly or collectively equals or exceeds 50% of the market value of the structure before the "start of construction" of the substantial improvement. This term includes structures which have incurred "substantial damage," regardless of the actual amount of repair work performed. The term does not include any project for improvement of a structure to correct existing violations of State or local health, sanitary or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions.

Section 2 – FRP Bags

Flood Response Preparation (FRP) Bags for Storm Impacted Structures

FRP#1 is a clear plastic door hanger bag that will hold FRP projects #2-6. The bag's messaging reminds people about the importance of knowing their flood hazards and protecting people, property, and natural floodplain functions. It also includes multiple websites and a contact number.



FRP#2 is a double-sided handout of our flood hazard standards that reminds residents to build responsibly and to be aware of the zoning and permit requirements before starting repair work. These notices will only be delivered to properties within FEMA's SFHA or Raleigh's higher regulatory standard.

CHECK PERMIT REQUIREMENTS BEFORE STARTING REPAIR WORK

Planning and Development Department: (p) 919-996-2682
(e) Development.Services@RaleighNC.Gov


Apply For A Permit
Online: <https://raleighnc.gov/permits/services/how-get-residential-permit>
In-person: Planning and Development Department
Customer Service Center
One Exchange Plaza, Suite 400
Raleigh, NC 27601

New Construction
The finished first-floor elevation must be 2 feet above the FEMA Base Flood Elevation or the City of Raleigh's higher regulatory standard, as found in Chapter 9 of the Unified Development Ordinance.

Substantial Improvements
Any reconstruction, repair, rehabilitation, addition or other improvement of a structure, the cost of which over a 5-year period singularly or collectively equals or exceeds 50% of the market value of the structure before the "start of construction" must meet the same elevation requirements as a newly constructed building.

Substantial Damage
If repair costs equal or exceed 50% of the structure's fair market value, the finished first floor must meet the same elevation requirements as new construction before repairs to the structure will be permitted.

FRP#3 is a flyer that informs residents about grant opportunities to assist with flood mitigation projects.

Flood Mitigation Grant Opportunities 

Do you experience repetitive flood loss at your property? There are a variety of grant opportunities that residents can apply for to acquire, floodproof, and elevate properties in flood hazard zones. Contact the Floodplain Team at [919-996-3777](tel:919-996-3777) or floodplain@raleighnc.gov to learn more about your options.

Benefits

Returning these areas to green space:

- Keeps residents safe;
- Allows the floodplain to function naturally; and,
- Reduces flooding impacts.

When structures are no longer in the floodplain – the water can fan out, slow down, and soak into ground more easily.

Projects

Funding for these projects comes from Raleigh's [stormwater utility fee](#) and FEMA's [Hazard Mitigation Grant Program](#).

FRP#4 NFIP's Increased Cost of Compliance Coverage (ICC) trifold brochure provides information about insurance and building back responsibly following a flood event, as well as protecting property.

Mitigation Reduces Future Flood Damage

Is your building insured through the National Flood Insurance Program (NFIP) with a Standard Flood Insurance Policy (SFIP)? If so, you may be eligible for up to \$30,000 in Increased Cost of Compliance (ICC) coverage. ICC will help cover the costs of meeting the community's rebuilding requirements that will protect your home from future flood damage. ICC coverage can help to pay the cost of one or any combination of these four mitigation activities:

-  **Elevate** above the flood level required by your community.
-  **Relocate** to a new site, preferably out of the floodplain.
-  **Demolish** the building.
-  **Dry Roofproof** the building (primarily non-residential).

Your insurance carrier and community building department can help you to determine your ICC eligibility and the documentation you will need.

ICC Helps Reduce Future Flood Damage

Flooding badly damaged John Smith's \$200,000 home. After John reported his flood loss to his insurance carrier, an assigned adjuster inspected the property and said he may be eligible to receive ICC and should talk to his community building department.

John contacted the community building department and after an inspection of the home, it was declared substantially damaged. John and the building department jointly decided elevating his home was the best way to meet the local floodplain rebuilding requirements and reduce future flood damage.

John provided the substantial damage letter he received from his community building department to the insurance carrier. After the insurance carrier verified that the flood damage equaled at least 50 percent of the pre-flood market value, John qualified to receive ICC. After submitting a signed contract for the work, a building permit from the building department, and a signed ICC Proof of Loss form, John was ready to elevate his home!


*Check with your insurance carrier to determine if you are able to receive a partial payment to help with the initial mitigation activity costs.

For more information about the NFIP, flood insurance, or ICC, contact your insurance carrier or visit www.Floods.org.

National Flood Insurance Program

Increased Cost of Compliance Coverage

Reduces Future Flood Damages



What is Increased Cost of Compliance (ICC)?

ICC coverage is included under the National Flood Insurance Program (NFIP) Standard Flood Insurance Policy (SFIP). ICC helps policyholders with the costs incurred if they are required by the community building department to meet rebuilding standards after a flood.

ICC coverage provides up to \$30,000 to help pay for relocating, elevating, demolishing, and floodproofing (non-residential buildings), or any combination of these mitigation activities.

The ICC portion of the claim is handled separately from the building and/or contents portion of the claim. However, the combination of payments cannot exceed the maximum coverage limits available through the NFIP. For example, a policyholder cannot receive more than \$250,000 in claim payments for a residential building.

Are You Eligible to File a Claim for ICC?

Yes, if:

- You have an NFIP flood insurance policy; and
- Your community building department determines your home is substantially or repetitively damaged by flooding; and
- The flood damage to your home is equal to 50 percent of the pre-flood market value.

"Substantially damaged" means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.

"Repetitively damaged" means the building must have flood damage on at least two occasions during a 10-year period; the cost of which to repair the flood damage, on average, equaled or exceeded 25 percent of the market value of the building on each occasion.

Starting the ICC Claims Process after a Flood

- If your community building department determines your structure is substantially or repetitively damaged, discuss what mitigation activities will be required to rebuild in the floodplain and if any grants may be available.
- Promptly contact your insurance carrier to file a claim for ICC and document the loss (photographs, etc.). Do not begin minor repair work before filing an ICC claim.
- Submit to your insurance carrier the letter from your community building department declaring the building substantially or repetitively damaged, a signed contract for the mitigation activity, and the building permit that documents rebuilding requirements in the floodplain.
- The insurance carrier will verify that the flood damage to your building equals at least 50 percent of the pre-flood market value, which is required to start the ICC claim.

Things to Remember about ICC

- After it has been determined which mitigation activity you will be taking, contact your insurance carrier to file a claim for ICC. An adjuster will be assigned to you.
- Your adjuster will ask you to submit your substantial damage letter and building permit from the community building department, a copy of a signed contractor bid for the work, and a signed ICC Proof of Loss form, which the adjuster may provide to you as a courtesy.
- Before you begin the work, check with your insurance carrier to see if you are able to receive a partial payment to help cover some of the initial construction costs.
- After the work is completed, your community building department will provide written evidence the work meets the floodplain management regulations. Submit this to your insurance carrier to receive a full or remaining partial ICC payment.
- If necessary, your community building department may also be able to use ICC to supplement Federal or state grant funding for your elevation, demolition, relocation, or floodproofing (non-residential building).

Where to Get More Information

For more information about the ICC claim process, visit www.FEMA.gov/Increased-Cost-Compliance-Coverage, contact your insurance carrier, or your State NFIP Coordinator (<http://www.Floods.org/>).

FRP#5 Brochure for residents to learn about post-storm safety and flood prevention tips to help them protect themselves and their property during future natural disasters.

AFTER A FLOOD

- If you evacuated, return to your home only after local authorities have said it is safe to do so.
- Avoid driving through flooded areas and standing water.
- Avoid wading in floodwater, which can be contaminated and contain dangerous debris.
- Upon entering the building, do not use matches, cigarette lighters or any other open flames, since gas may be trapped inside.
- Take photos of any floodwater in your home and of damaged items for insurance purposes.
- Call your insurance agent to file a claim and report the damage as soon as possible.
- Before starting repairs, research local building rules and regulations to ensure you will be proceeding compliantly.

VISIT THE FOLLOWING WEBSITES TO LEARN MORE
 Protect Your Property www.fema.gov/protect-your-property
 FloodSmart www.floodsmart.gov

FRP#6 Brochure for residents to learn about pre and/or post-storm reconstruction and flood prevention tips to help protect themselves and their property during and after future natural disasters.

Ways to protect your home from flood damage

Restore, Replace, and Protect

Raleigh Stormwater

OUTSIDE THE HOME

For exterior areas of a property or home, consider following these steps:

Maintain proper water runoff and drainage. Routinely clean and maintain gutters and downspouts to allow easy drainage flow away from a home.

Improve lot grading. Determine how water flows or collects around a property or home to find potential trouble spots. Stormwater should drain away from a property. If necessary, change the landscaping to improve runoff.

Reduce impervious surfaces. Hard surfaces like driveways and patios cause stormwater runoff to enter storm drains and waterways. Installing a rain garden, permeable pavement, and other green stormwater infrastructure capture and soak up stormwater.

Install a rain barrel. Rain barrels are connected to gutter downspouts and collect runoff from roofs. Stored water can be used for washing vehicles and watering lawns and gardens.

INSIDE THE HOME

For interior areas below the potential flood level, consider following these steps:

Protect valuable possessions. Move important documents and other valuable items to a safer location above the potential flood level and inside watertight containers.

Seal foundation and basement walls. Close any foundation cracks with mortar and caulk or hydraulic cement, which expands and fills gaps completely. Seal walls in a basement with waterproofing products. Make sure flood drains are clear of obstructions.

LEARN MORE ABOUT FLOODING

Visit fema.gov and search "Know Your Risk" to find more information about protecting your property.

Visit floodsmart.gov to find information about flood preparation and flood insurance.

CONTACT US

For questions about flooding, send an email to RaleighStormwater@raleigh.nc.gov or call 919-996-3940.

raleighnc.gov/stormwater

Install flood vents. Flood vents are small permanent openings that allow floodwater to flow freely through a crawlspace or garage. Flood vents protect homes by preventing water pressure buildup that can damage walls and foundations.

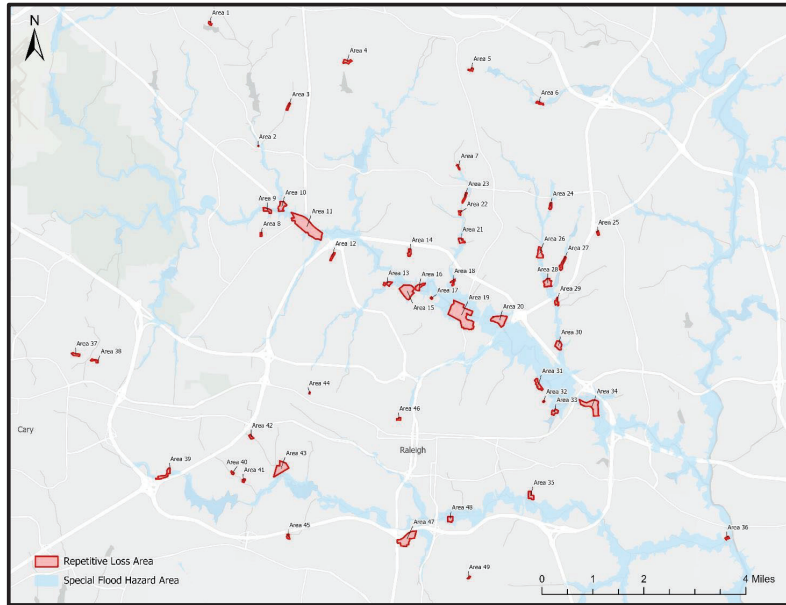
Install a sump pump. With a sump pump, groundwater is drawn from around the house and directed away through stormwater pipes. A sump pump with a battery-operated backup can operate in electrical power failure.

Use flood-resistant building materials.

- Replace wooded floorboards and carpets with ceramic tile, vinyl, rubber, or other flood-resistant materials.
- Replace internal walls and ceilings with flood-resistant material such as lime plaster, cement board, concrete, or pressure-treated and decay-resistant wood.
- Replace wooden doors and window frames with metal or other flood-resistant options.

Section 3 – RL Areas Map

Map of Repetitive Loss Areas in the City of Raleigh (2024)



Inventory of Structures within Repetitive Loss Areas in the City of Raleigh (2024)

Repetitive Loss Area	Number of Structures	Repetitive Loss Area	Number of Structures
1	2	26	27
2	1	27	17
3	8	28	23
4	1	29	7
5	4	30	7
6	10	31	27
7	3	32	2
8	3	33	7
9	2	34	23
10	5	35	14
11	12	36	4
12	7	37	7
13	7	38	2
14	3	39	13
15	24	40	3
16	12	41	4
17	2	42	4
18	3	43	28
19	96	44	1
20	9	45	2
21	7	46	2
22	5	47	3
23	10	48	4
24	4	49	3
25	3		

Weekly Events Digest

Friday, August 16 – Thursday, August 22

City of Raleigh Office of Special Events
specialevents@raleighnc.gov | 919-996-2200 | raleighnc.gov/special-events-office

Permitted Special Events

Mud Day

Walnut Creek Wetland Park & Peterson Street

Saturday, August 17

Event Time: 10:00am - 1:00pm

Associated Road Closures: Peterson Street between S. State Street and the entrance to Carnage Middle School will be closed from 7:00am until 2:30pm.

CaribMask Caribbean Festival & Parade

Fayetteville Street District

Saturday, August 17

Event Time: 12:00pm - 9:00pm

Associated Road Closures: Fayetteville Street between Martin Street and the south end of City Plaza, and Davie Street between Salisbury Street and Wilmington Street will be closed from 6:00am until 11:59pm. The following roads will be closed from 10:00am until 2:00pm:

- S. Salisbury Street between W. Edenton Street and Hillsborough Street
- Hillsborough Street between McDowell Street and S. Salisbury Street
- Morgan Street between McDowell Street and S. Salisbury Street

The following parade route will be closed from 12:00pm until 2:00pm; note that all roads one block in each direction will be detoured during the event:

- Start at intersection of Hillsborough Street and S. Salisbury Street and head south
- Left onto E. Morgan Street
- Right onto Fayetteville Street
- Right onto W. Martin Street
- Left onto S. Salisbury Street to finish

Kirby Derby 2024

Dorothea Dix Park, Richardson Drive Loop

Saturday, August 17

Event Time: 3:00pm - 9:00pm

Associated Road Closures: Richardson Drive between Tate Drive and Stancil Drive, and Tate Drive between the Richardson Drive loop will be closed from 9:00am until 10:00pm.

UNC Health Sprint Triathlon – Wakefield

Wakefield & UNC Health Wellness Center

Sunday, August 18

Event Time: 7:00am - 10:00am

Associated Road Closures: Roads will be used for the run and bike routes from 7:00am until 10:00am. View the [2-Mile Run Course](#) and [10-Mile Bike Course](#) for more details.

Raleigh Night Market

City Market

Wednesday, August 21

Event Time: 5:00pm - 9:00pm

Associated Road Closures: Parham Street between Martin Street and Wolfe Street, and Wolfe Street between Blount Street and Blake Street will be closed from 3:00pm until 10:00pm.

Other Upcoming Events

[Sneaker Design Day](#)

Friday, August 16
Peach Road Park

[Glass Animals](#)

Friday, August 16
Coastal Credit Union Music Park at Walnut Creek

[Tate McRae](#)

Friday, August 16
Red Hat Amphitheater

[Affordable Housing Summit](#)

Saturday, August 17
Raleigh Convention Center

[Back to School Jamboree at the Park](#)

Saturday, August 17
John Chavis Memorial Park

[Raleigh Teen Connect Pool Party](#)

Saturday, August 17
Biltmore Pool

[Dan + Shay](#)

Saturday, August 17
Coastal Credit Union Music Park at Walnut Creek

[Summer Concert Series](#)

Sunday, August 18
Fred Fletcher Park

[Connect & Create: Intro to Animation](#)

Wednesday, August 21
The Chapel at Dix Park

[Artist Talk](#)

Wednesday, August 21
Block Gallery

[Styx & Foreigner with John Waite](#)

Wednesday, August 21
Coastal Credit Union Music Park at Walnut Creek

[Jazz in the Square](#)

Thursday, August 22
Moore Square

Weekly Events Digest

Friday, August 16 – Thursday, August 22

City of Raleigh Office of Special Events
specialevents@raleighnc.gov | 919-996-2200 | raleighnc.gov/special-events-office

Public Resources

[Event Feedback Form](#): Tell us what you think about Raleigh events! We welcome feedback and encourage you to provide comments or concerns about any events regulated by the Office of Special Events. We will use this helpful information in future planning.

[Road Closure and Road Race Map](#): A resource providing current information on street closures in Raleigh.

[Online Events Calendar](#): View all currently scheduled events that impact city streets, public plazas, and Dorothea Dix Park.

Council Member Follow Up