Sarasota County

Repetitive Loss Area Analysis

Cover Photo: Siesta Key, Sarasota County

Annual RLAA Report

Completed By

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TERMINOLOGY

BCA – FEMA's Mitigation Benefit Cost Analysis Tool Kit: Benefit Cost Analysis (BCA). A computer program that determines the future estimated benefits of a hazard mitigation project compared to its costs.

BFE – Base Flood Elevation: The elevations shown on the Flood Insurance Rate Map (FIRM) indicate the water surface elevation resulting from a flood that has a 1 percent chance of equaling or exceeding that level in any given year. All elevations shown are in the current NAVD88 datum.

CIP – Capital Improvement Program or Plan: A short-range plan, usually four to ten years, which identifies various capital improvement projects over $50,000.00, including stormwater and equipment purchases, provides a planning schedule, and identifies options for financing the project.

CRS – Community Rating System: A program developed by FEMA to provide flood insurance reduction incentives for those communities in the NFIP that have gone beyond the minimum floodplain management requirements.

FEMA – Federal Emergency Management Agency: The agency responsible for administering the elements of the NFIP and the CRS programs. FEMA coordinates the federal government's role in preparing for, preventing, mitigating the effects of, responding to, and recovering from all domestic disasters, whether natural or man-made.

FIRM – Flood Insurance Rate Map: Official map of a community on which FEMA has delineated both the special hazard areas and the risk premium zones applicable to the community.

GIS – Geographic Information Systems: A framework for gathering, managing & analyzing spatial or geographic data.

HOA – Homeowner's Association: A private organization that makes and enforces rules for the properties within a subdivision.

ICC – Increased Cost of Compliance: Increased Cost of Compliance (ICC) coverage is one of several resources for flood insurance policyholders who need additional help rebuilding after a flood. It provides up to $30,000 to help cover the cost of mitigation measures that will reduce flood risk. ICC coverage is a part of most standard flood insurance policies available under FEMA's National Flood Insurance Program (NFIP).

NFIP – National Flood Insurance Program: Provides the availability of flood insurance in exchange for the adoption of a minimum local floodplain management ordinance that regulates new and substantially improved development in identified flood hazard areas.

OLP – Other Loss Properties: An NFIP-insured property that has had one paid flood insurance loss within a ten (10) year period.

RLA or RLAA – Repetitive Loss Area or Repetitive Loss Area Analysis: An area that has multiple Repetitive Loss Properties as defined by the NFIP and OLPs within its boundaries.

RLP – Repetitive Loss Property: An NFIP-insured property that has had at least two paid flood losses of more than $1,000 each in any 10-year period since 1978.

SRL – Severe Repetitive Loss Property: A SRL property is defined as a residential property that is covered under a NFIP flood insurance policy and that a). has at least 4 NFIP claim payments (including building and contents) over $5,000.00 each and the cumulative amount of such claims payments exceeds $20,000.00; and b). for which at least 2 separate claims payments (building payments only) have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building. At least 2 of the above referenced claims must have occurred within any 10-year period and must be greater than 10 days apart.

EXECUTIVE SUMMARY

The purpose of this report is to assist homeowners in understanding the existing and potential flooding problems on their properties and to identify potential solutions and mitigation opportunities that may be available.

Communities with one or more Repetitive Loss Properties must have at least one Repetitive Loss Area (RLA) delineated in accordance with the Community Rating System (CRS) manual. Currently there are three-hundred and sixty-six (**366**) properties in Sarasota County that meet the National Flood Insurance Program's (NFIP's) definition of Repetitive Loss Properties (RLPs). Therefore, a Repetitive Loss Area Analysis (RLAA) is required for Sarasota County as a part of its participation in the CRS program. The RLAA is one component of Sarasota County's overall Local Mitigation Strategy (LMS).

Sarasota County RLAA Statistics

240 Repetitive Loss Structures
48 Severe Repetitive Loss Structures
12 Repetitive Loss Areas
703 Structures evaluated within Repetitive Loss Areas

The identified RLAs were developed through a process of combining FEMA data for both RLPs and properties with a single insurance claim. This process gives a better understanding of the extent of local flooding throughout the County. Included in this process was a comparison of ground elevations of the properties with flood insurance claims versus the ground elevations of surrounding properties. Structures with similar types of construction, drainage patterns, and flood exposures were identified and included within these areas.

To create this RLAA report, the County followed a process prescribed by the 2017 CRS Coordinator's Manual. An area analysis must be prepared and adopted for each RLA in the community for full CRS credit. The analyses must meet the following criteria:

- The RLAs must be mapped.
- A five-step process must be followed.
  - Step 1: Notification
  - Step 2: Collaboration
  - Step 3: Data collection
  - Step 4: Mitigation options
  - Step 5: Findings and recommendations
- Although all 5 steps must be completed, steps 2–4 do not have to be done in the order listed. For example, staff may contact agencies and organizations to see if they have useful data (Step 2) after the site visit is conducted (Step 3).
- The RLAA report(s) must be submitted to the community's governing body and made available to the media and the public. If private or sensitive information is included in the report, then a summary report may be prepared for the media and the public. The complete RLAA report(s) must be adopted by the community's governing body or by an office that has been delegated approval authority by the community's governing body.
- An annual evaluation report must be performed.
- The analysis must be updated in time for each CRS cycle verification visit.

Property owners in the defined RLAs were notified by letters of the implementation of the RLAA project and given a survey asking for their input. Data was collected and reviewed from various sources to identify flood hazards and funding sources available to mitigate them. The annual evaluation provides verification of the original data and updates to the report each year.

The following pages of this report describe the specific steps that were followed including identifying recommended flood hazard mitigation measures, funding assistance for these measures, and adding report updates.

1. BACKGROUND

1.1 PROBLEM STATEMENT

Among natural hazards, floods are the costliest and most pervasive hazard in the United States. Property losses from flooding events in the United States have been steadily increasing since the mid-1900s and have now reached a cost of billions of dollars per year.

Sarasota County is a Gulf Coast community located on the west coast of Florida that encompasses approximately 725 square miles, of which 572 square miles is land, and 154 square miles are classified as water features, which support diverse habitats for plants and animals. Additionally, the County has 35 miles of open shoreline along the Gulf of Mexico. Many of the canals were constructed to function as agricultural drainage canals and were not designed to convey flows from developed areas. After World War II, the County experienced significant growth and development along the shoreline, as well as other areas adjacent to water features.

Figure 1: Aerial of typical Sarasota County Coastline & Watershed

The sub-tropical weather pattern in this region provides frequent extreme weather events including flooding from tropical depressions and hurricanes. Extreme and severe summer rains can cause flooding in various locations throughout the County. These events may pose a significant threat to life and property.

Sarasota County can experience flooding from rainfall and storm surge due to hurricanes or tropical storms, as well as heavy rainfall that can occur throughout the year. Flooding can cause extreme impacts to a community from the loss of housing, displacement of residents, contamination of utilities, damage to infrastructure, and damage or destruction of natural resources.

In the low-lying areas along the coastlines and barrier islands, additional stormwater improvements are unlikely to provide relief as sea levels are expected to rise. Sarasota County experiences ‘sunny day’ flooding in these areas. High tides and

King Tides rise above the stormwater structures and sea water backs up through the stormwater system onto roads and yards, causing them to become temporarily inundated.

The frequency and severity of these events is expected to increase with time in coastal communities facing similar flooding issues across the nation. Staff will continue to work to identify new methods to mitigate these effects. As additional methods of mitigation are identified, there will be more available options identified in our annual outreach letters to these areas for homeowners to consider.

In 2014, the Sarasota Bay Estuary Program (SBEP) released a study on the economic valuation of Sarasota Bay resources and the ecosystem services the Bay provides to the surrounding community. The study concluded that the value of Sarasota Bay resources to Sarasota and Manatee County households is $11.8 billion.

1.2 NATIONAL FLOOD INSURANCE PROGRAM (NFIP)

The NFIP is an agreement between the Department of Homeland Security's Federal Emergency Management Agency (FEMA) and local units of government. Participating communities adopt the minimum floodplain regulations of the NFIP, and the NFIP makes federally backed flood insurance available to residents. Federal aid for damaged insurable buildings in the floodplain is available to participating communities.

The three basic components of the NFIP are floodplain mapping, flood insurance, and floodplain management regulations. Floodplain mapping is provided by FEMA on a series of maps called Flood Insurance Rate Maps (FIRMs), which designate areas of a community according to various levels of flood risk. Areas of moderate and high-risk are shown as Special Flood Hazard Areas (SFHAs). Regardless of its risk level, any building in an NFIP participating community can be covered by a flood insurance policy, even buildings outside of the SFHA. A flood insurance policy is only mandated for federally backed loans.

In 1971, Sarasota County joined the NFIP. When communities join the NFIP, property owners and renters become eligible to purchase federal flood insurance to protect themselves from financial losses. When FEMA identifies a community as flood-prone and community officials choose not to participate in the NFIP within a year of being notified, property owners in mapped flood hazard areas will be ineligible for most forms of disaster assistance. This does not affect communities where FEMA has not identified flood hazards.

Special Flood Hazard Areas are defined as areas that will be inundated by a flood event having a 1-percent chance of being equaled or exceeded in any given year. The 1-percent chance flood is also referred to as the base flood or 100-year flood. Sarasota County has a large SFHA designated by FEMA and identified on FEMA FIRM maps, as well as Community Flood Hazard Areas (CFHAs) identified by local flood studies as also having a 1-percent chance of flood. The SFHA in Sarasota County is defined by FEMA as follows:

Flood Zones

- A: SFHA where no base flood elevation is provided
- AE: SFHA where base flood elevations are provided
- AH: Shallow flooding SFHA. Base flood elevations are provided
- AO: SFHA with sheet flow, ponding, or shallow flooding. Base flood depths (feet above grade) are given
- Coastal A: A FEMA delineated area of Limit of Moderate Wave Action (LiMWA).
- Shaded X: Moderate flood hazard areas that have a 0.2-percent probability of flooding every year
- V: SFHA subject to coastal high hazard flooding without a determined base flood elevation
- VE: SFHA subject to coastal high hazard flooding with a determined base flood elevation
- X: Moderate to low-risk areas of flooding, outside of SFHA

The NFIP is responsible for paying flood claims while aiming to keep the price of flood insurance at an affordable level. One big challenge is with Repetitive Flood Loss (RLPs) properties, which are estimated to cost $3.5 million per year in flood insurance claim payments throughout the United States. RLPs represent only 1.3% of all flood insurance policies, yet historically they have accounted for 15 – 20% of losses (over $9 billion dollars to date). Mitigating these RLPs will reduce the overall costs to the NFIP, the communities in which they are located, and the individual homeowners. The

claims paid through the NFIP total approximately $29.1 million since 1978 for unincorporated Sarasota County (FEMA, 2022).

This Repetitive Loss Area Analysis (RLAA) follows FEMA guidelines to determine why an area has repeated flood losses and to determine what alternative flood protection measures could help break the cycle of repetitive flooding.

1.3 COMMUNITY RATING SYSTEM

The CRS is a voluntary program that rewards a community for going above and beyond the NFIP minimum requirements to reduce flood damage. Communities are rewarded for implementing activities in the CRS manual such as reducing flood damage to existing buildings, managing development in areas not shown in the SFHA on the FIRMs, helping insurance agents obtain flood data, and helping people obtain flood insurance. The reward for these activities comes in the form of reduced premiums for flood insurance policy holders in the community.

When a community is accepted into the CRS program, the community's floodplain management activities are rated according to the scoring system described in the CRS Coordinator's Manual. CRS communities are rated on a scale of 1-10 with 1 being the best class. A Class 10 community receives no reduction in flood insurance premiums, but every class above 10 receives an additional 5% premium reduction. Class 1 requires the most credit points and provides a 45% premium reduction.

Sarasota County is a Class 5 community; therefore, property owners receive up to 25% in flood insurance premium reductions through the NFIP.

Sarasota County remains ready for a flood event by maintaining oversight of the floodplain management program and by keeping the following items current:

- Community Rating System program
- Floodplain maps
- Flood Damage Prevention ordinance
- Floodplain Management Plan
- Local Mitigation Strategy plan

1.4 SARASOTA COUNTY FLOOD ORDINANCE

The Sarasota County Sarasota County Flood Damage Prevention Ordinance regulates what types of development activities are allowed and how proposed development may be permitted. The Sarasota County Flood Damage Prevention Ordinance sets higher regulatory standards than the minimum requirements of the NFIP to reduce damage to structures and infrastructure, and to minimize the risk of human casualties. Staff review and update the Sarasota County Flood Damage Prevention Ordinance as needed.

Sarasota County developed a GIS based flood zone locator application SarcoFlood that displays digitized FEMA FIRM maps. These maps show SFHAs determined by FEMA as well as CFHAs identified by local flood studies. Local development is regulated to the higher elevation of the CHFA and the SFHA. Several applications were submitted to FEMA to incorporate these local flood study areas into the official FEMA FIRMs. These applications were accepted by FEMA in 2017 and 2018, the new FIRMs becoming effective March 27, 2024.

Additional flood hazard information is located on these digitized maps such as elevation certificates, if available, and Letters of Map Change (LOMC). The Property Appraiser website displays the flood zone data with a link to these digital flood maps.

1.5 REPETITIVE LOSS AREA

The NFIP considers a property as a Repetitive Loss Property (RLP) if two or more flood insurance claims of more than $1,000 have been paid within any 10-year period since 1978.

A property may also be identified as a Severe Repetitive Loss (SRL) property. A SRL property is defined as a residential property that is covered under a NFIP flood insurance policy that:

a. has at least four NFIP claim payments (including building and contents) over $5,000 each and the cumulative amount of such claims payments exceeds $20,000; OR
b. for which at least two separate claim payments (building payments only) have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building.

For both (a) and (b) above, at least two of the referenced claims must have occurred within any 10-year period and must be greater than 10 days apart.

Every year, FEMA sends a report to participating communities outlining the flood insurance claims on properties insured through the NFIP. According to FEMA's records for 2024, there are currently 240 RLPs within Sarasota County. This information is protected by the Federal Privacy Act of 1974 and will be protected throughout this report.

Properties without federal flood insurance or those who have private insurance may have reached the damage threshold for RLPs but are not tracked through the NFIP, and some property owners may not submit claims for flood damage sustained for various reasons.

A Repetitive Loss Area (RLA) consists of RLPs and surrounding properties with similar construction and drainage patterns that may experience the same or similar flooding conditions, whether the buildings on those surrounding properties have been damaged by flooding. This is displayed in the RLAA Overview Map (see page 13).

It should be noted that RLPs are not limited to just the FEMA-designated floodplains. Any property that meets the NFIP flood claim thresholds listed above can be designated as an RLP or SRL property, regardless of the mapped floodplain. For example, in Sarasota County only about 81% of the RLPs are in the FEMA 100-year flood zones. Another 6% are in the 500-year flood zone (Shaded X), of which 13% are outside of the FEMA-designated floodplain.

1.6 REPETITIVE LOSS AREA ANALYSIS

A RLAA is a detailed mitigation plan for a defined RLA that provides more specific guidance on how to reduce damage from repetitive flooding than a community-wide floodplain management or hazard mitigation plan. Before beginning the RLAA process, the community reviews its repetitive loss list to determine if any properties have been mitigated or incorrectly assigned to the community. Necessary updates are approved as per CRS Section 502 and remaining unmitigated RLPs are used to form the basis for the RLAA. The RLAA summary can be found in the Sarasota County Multi-Jurisdictional Local Mitigation Strategy (LMS) Plan.

For CRS purposes, there are three categories of repetitive loss communities based on the number of properties on the community's repetitive loss list. Every CRS community with one or more unmitigated RLP on FEMA's current list must keep the list updated. Additional requirements depend on the community's repetitive loss category, which is determined by the number of RLPs without mitigation measures AFTER the community has updated the RLP information and submitted it for approval.

These categories are:

- Category A: no repetitive loss properties or all repetitive loss properties have been mitigated.
- Category B: at least one but fewer than 50 repetitive loss properties that have not been mitigated.
- Category C: 50 or more repetitive loss properties that have not been mitigated.

Sarasota County is a Category C community. Therefore, per the CRS requirements, at each verification visit the County must:

a) Prepare a map of the repetitive loss areas
b) Review and describe the repetitive loss problem
c) Prepare a list of the addresses of all properties with insurable buildings in those areas
d) Undertake an annual outreach project to those addresses
e) Prepare and adopt a repetitive loss area analysis for all repetitive loss areas or prepare and adopt a floodplain management plan that includes full credit for Step 5(c) of the CRS floodplain management planning process

CRS credit is dependent upon the community following an appropriate process outlined in the CRS manual. Outlined in the Summary of this report and detailed in Section 2 are the five steps for creating a detailed analysis. The analysis must evaluate the repetitive loss buildings and those adjacent to them in each RLA. For full CRS credit, an analysis must be made for each RLA, and it must be made available to the residents of those areas.

As part of the County's floodplain management program, RLPs and RLAs will be mitigated over time through flood damage reduction measures. Therefore, the County's repetitive loss category may change to a Category B, with the goal of becoming a Category A.

2. THE RLAA PROCESS

2.1 MAPPING THE REPETITIVE LOSS AREAS

To support mapping of the RLAs and the RLAA, a data discovery and initial document review step is required in which all relevant local, state, and federal data and information was obtained through coordination with Sarasota County's CRS Coordinator, Public Works Stormwater staff, and GIS staff. The result was an extensive array of geospatial data, as well as ancillary data including floodplain management plans, mitigation activities and status, permits, stormwater models, and other supporting documentation relevant to the RLAA project. This initial information was then utilized in the step-by-step guidance provided in the NFIP/CRS Handout "Mapping Repetitive Loss Areas for CRS" (October 2015), which is consistent with the requirements of FEMA's FIA-15/2017 CRS Coordinator's Manual, Sections 512.b, and the CRS Addendum section 501.a. These steps are listed below, along with a summarized description of the process improvements implemented based on the extensive geospatial data infrastructure, floodplain management, and CRS data and documentation available from Sarasota County:

2.1.1 Geocode Repetitive Loss Data: Locate each of the RLPs on a map. To perform this step, the confidential, Privacy Act protected list of RLPs were obtained, as well as the Historical Claims, and AW-501s (mitigated and un-mitigated) provided by FEMA/ISO (as of June 3, 2022). These addresses were then geocoded using the County's address-points GIS layer with review and matching/editing also using street addresses, resulting in a point feature GIS layer representing the 213 RLPs on the list. Once the point feature layer was created, adjacent properties were added to evaluate flooding conditions within the area.

2.1.2 Property Comparisons: Delineate areas with adjacent properties (i.e., typically a whole area is subject to flooding). The resulting six (12) RLAs were organized based on the repetitive loss structures and adjacent properties, then assigned a descriptor. These are referred to in **Figure 2** and **Table 4**, which provides an overview map and sites.

2.2 STEP 1: NOTIFICATION

Advise all the properties in the repetitive loss areas that the analysis will be conducted and request their input on the hazard and recommended actions.

Once these RLA boundaries were established, letters were mailed to property owners with RL structures and adjacent structures, informing them of their location within an area of repetitive flooding and the analysis being conducted in the area. The letter encouraged property owners to provide information via email or phone to the CRS Coordinator. The letter also informed property owners of data and survey collection efforts that would be taking place, provided contact information for County staff, and encouraged the review of online material regarding property protection measures, flood insurance, and ways to reduce flood risk.

2.3 STEP 2: COLLABORATION

Contact agencies or organizations that may have plans or studies that could affect the cause or impacts of the flooding.

For the analysis to be as complete and accurate as possible, Sarasota County identified other agencies and organizations that may have information on flood hazards in the area. The County sent data requests to the Southwest Florida Water Management District, Sarasota Bay Estuary Program, and Coastal and Heartland National Estuary Partnership.

2.4 STEP 3: DATA COLLECTION

Visit each building in the repetitive loss area and collect basic data.

As part of the process, field visits were conducted for each property, collecting data on the structures and site, evaluating current flood risk and conditions, and assessing potential options for mitigation of the property or area. Each structure was evaluated based on construction materials, elevation, drainage, number of stories, building condition, year built, and building type.

2.5 STEP 4: MITIGATION OPTIONS

Review alternative approaches and determine whether any property protection measures or drainage improvements are feasible. In evaluating options for mitigation on each structure, a variety of methods were considered:

MITIGATION OPTIONS – STRUCTURAL:

- Acquisition: demolishing or relocating the building
- Back-flow Protection: sewer backup protection
- Detention: stormwater detention or retention facilities
- Diversions: flow diversions
- Drainage: redirecting on-site drainage away from the building
- Elevating Utilities and/or Equipment: elevating damage-prone equipment and machinery
- Elevation: elevating the building above the flood level
- Floodproofing: dry and wet floodproofing
- Levees: berms, levees, or floodwalls
- Modifications: channel or stormwater system improvements or modifications
- Stormwater: repair or maintenance of existing stormwater systems, storm drains, streams, and ditches

MITIGATION OPTIONS – NON-STRUCTURAL:

- Continue coordination with the National Weather Service (NWS) and the United States Geological Survey (USGS) to further enhance the local flood warning system, including the use of rain/stream gauges, to provide greater warning time for citizens
- Improve local floodplain and zoning ordinances (i.e., cumulative improvements)
- Promote the purchase of flood insurance
- Provide public education through posting information about local flood hazards on our website, posting signs at various locations in neighborhoods, or discussing flood protection measures through workshops at local libraries and at local neighborhood association meetings
- Relocate internal supplies, products/goods, and belongings above the flood depth

Flood insurance remains one of the best ways for residents to protect themselves from flood impacts and may be the only source of assistance to fund damaged property cleanup and repairs. Coverage is available for the contents of the home as well as the structure. Renters can buy content coverage, even if the building owner does not buy coverage for the structure itself.

2.6 POSSIBLE FUNDING SOURCES

Sarasota County has identified the following potential funding sources to pursue as opportunities arise to support mitigation strategies. By utilizing existing outside funding sources, it is the County's intention to increase the number of recommended projects that can be implemented.

Typically, FEMA grant programs provide 75% of the cost of a project. In most communities, the 25% non-FEMA share is paid by the benefiting property owner. Each program has different Congressional authorization and slightly different rules. The FEMA grant program is a 'pass-through' grant that goes through the County to homeowners.

- **FEMA Hazard Mitigation Grant Program (HMGP)**: grants for states and local governments to implement long-term hazard mitigation measures after a major disaster declaration. Projects must provide a long-term solution to a problem (e.g., elevation of a home to reduce the risk of flood damage as opposed to buying sandbags and pumps to fight the flood). Examples of eligible projects include acquisition and elevation, as well as local drainage projects.

- **FEMA Flood Mitigation Assistance (FMA) program**: grants for states and local governments to implement measures that reduce or eliminate the long-term risk of flood damage to structures insured under the NFIP. Project grants to implement measures to reduce flood losses such as elevation, acquisition, or relocation of NFIP-insured structures. States are encouraged to prioritize FMA funds for applications that include repetitive loss properties; these include structures with 2 or more losses each with a claim of at least $1,000 within any ten-year period since 1978. FMA can provide 100% funding for Severe Repetitive Loss Structures.

- **FEMA Pre-Disaster Mitigation (PDM) program**: grants for states, territories, Indian tribal governments, local governments, and universities for hazard mitigation planning and the implementation of mitigation projects prior to a disaster event. For more information visit: www.fema.gov/pre-disaster-mitigation-grant-program#.

- **Increased Cost of Compliance (ICC) & Flood Insurance:** can help the homeowner be ready for a flood event. Purchasing flood insurance requires a 30-day waiting period from the date of purchase before the policy goes into effect. There is a special funding provision in the National Flood Insurance Program (NFIP) for insured buildings that have been substantially damaged by a flood called "Increased Cost of Compliance" (ICC). ICC coverage pays for the cost to comply with floodplain management regulations after a flood if the building has been declared substantially damaged. ICC will pay up to $30,000 to help cover elevation, relocation, demolition, and (for non-residential buildings) floodproofing. It can also be used to help pay the 25% owner's share of a FEMA funded mitigation project.

  To qualify for ICC, the building's flood insurance policy must have been in effect during the flood. This payment is in addition to the damage claim payment that would be made under the regular policy coverage if the total claim does not exceed $250,000. ICC payments are limited to $30,000 per structure. Claims must be accompanied by a substantial or repetitive damage determination made by the local Floodplain Administrator and the structure must be in a flood zone with a determined base flood elevation (BFE). For more information, contact your insurance agent or visit: https://www.fema.gov/floodplain-management/financial-help/increased-cost-compliance.

- **Small Business Administration (SBA) Mitigation Loans:** can provide additional funds for the homeowner in the form of a low-interest loan. The SBA offers home & business disaster loans. To find out more, go to: www.sba.gov.

Table 1: Mitigation Grant Programs - types of projects funded (HMGP; FMA; PDM; ICC; SBA)

Types of Projects Funded	HMGP	FMA	PDM	ICC	SBA
Acquisition of the entire property by a gov't agency	X	X	X		
Relocation of the building to a flood free site	X	X	X	X	X
Demolition of the structure	X	X	X	X	X
Elevation of the structure above flood levels	X	X	X	X	X
Replacing the old building with a new elevated one	X			X	X
Local drainage and small flood control projects	X				
Dry floodproofing (non-residential buildings only)		X	X	X	X
Percent paid by Federal program	75%	75/25/100%	75%	100%	0
Application Notes	1 & 2	1	1	3	2 & 4

Application notes:

1. Requires a grant application from local government.
2. Only available after a federal disaster declaration.
3. Requires the building to have a flood insurance policy and to have been flooded to such an extent that the local government declares it to be substantially damaged. Pays 100% up to $30,000.
4. This is a low interest loan that must be paid back.

The most appropriate measure can be determined based on the type of structure, severity of flooding, and proximity to additional structures with similar flooding conditions. In addition to these grant funded projects, several mitigation measures can be taken by the homeowner to protect their home.

2.7 METHODOLOGY

A database was developed for each structure within the County's RLAs based on the RLA structure data and the field data collected during site visits in accordance with the CRS Program guidelines. This allowed for objective characterization of each structure within the RLAs based on building-specific site, structural, and various other attributes.

To comply with the Privacy Act of 1974, the modeled evaluation did not include information that identified specific RLPs, or whether properties had flood insurance policies. This allowed the results of the analysis to prioritize mitigation of flooding risk without bias towards properties that had historically carried flood insurance. This data will be used as part of the review process to prioritize future Capital Improvement Projects (CIPs). More on the CIPs can be found on page 12.

The following illustrates the total structural details of buildings within each RLA. More in-depth details of each area is described later in this report. There are twelve (12) Repetitive Loss Areas labeled as follows:

	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6
Total Rep Loss structures:	4	1	36	114	4	3
Total Adjacent Structures:	15	1	73	222	10	5
	Area 7	**Area 8**	**Area 9**	**Area 10**	**Area 11**	**Area 12**
Total Rep Loss structures:	2	4	7	33	18	14
Total Adjacent Structures:	7	4	21	35	45	25

2.8 STEP 5: RECOMMENDATIONS & FINDINGS

Document the Findings

Each property was evaluated for feasible flood mitigation options. Each of the following methods were evaluated for cost-effectiveness and opportunity based on the structure construction and potential funding available:

Property Acquisition is a complex process requiring transferring ownership of private property to the local government for open space purposes. Acquisition is a relatively expensive mitigation measure but provides the greatest benefit in that lives and property are protected from flood damage. The major cost for the acquisition method is for purchasing the structure and land. There are criteria that must be met for FEMA to fund an acquisition project. The total estimated cost for acquisition should be based on the following:

- Debris removal, including any landfill processing fees
- Demolition
- Grading and stabilizing the property site
- Permits and plan review
- Purchase of structure and land

Relocation involves lifting and placing a structure on a wheeled vehicle and transporting that structure to a site outside of the 100-year floodplain. The structure must be placed on a new permanent foundation. Like acquisition, this is one of the most effective mitigation measures. The cost for relocation will vary based on the type of structure and the condition of the structure. It is considerably less expensive to relocate a home that is built on a crawl space as opposed to a structure that is slab on grade. Additionally, wood sided structures are less expensive to relocate than structures with brick veneer or concrete block. There are additional costs to consider when estimating the cost for relocation such as:

- Analysis and preparation of the moving route
- Analysis of existing size of the structure
- Connection of the structure to the new foundation
- Construction of the new foundation
- Moving the structure to the new location
- Preparation of the new site
- Restoration of the old site
- Site selection, and analysis and design of the new location

Elevating a structure to prevent floodwaters from reaching living areas is an effective method and one of the most common mitigation methods. The goal of the elevation process is to raise the lowest floor of a structure to or above the required level of protection. This method often reduces flood insurance premiums. When elevating to or above the BFE requirements, it allows a substantially damaged or substantially improved house to be brought into compliance. Although this method is effective, it may be cost-prohibitive based on the type of structure.

Wet Floodproofing consists of modifying the uninhabited portions (such as the crawlspace) of a structure to allow floodwaters to enter and exit. This ensures equal hydrostatic pressure on the interior and exterior of the structure which reduces the likelihood of wall failures and structural damage. This is often less costly than other mitigation methods, but there may be extensive cleanup if the structure becomes wet inside or possibly contaminated by sewage, chemicals or other materials borne by floodwaters. This method also does not minimize the potential damage from high-velocity flood flow and wave action.

Dry floodproofing a structure makes it watertight below the level that needs flood protection to prevent floodwaters from entering. Making the structure watertight involves sealing the walls with waterproof coatings, impermeable membranes, or a supplemental layer of masonry or concrete; installing shields over windows and doors; and installing measures to prevent sewer back-up. Although often less costly than other retrofitting methods, it does require human intervention and adequate warning to install the protective measures.

Sewer back-up prevention requires installing a backflow preventer to ensure sewer systems don't back-up during flooding events. In some flood-prone areas, flooding can cause sewage from sanitary sewer lines to back up through

drainpipes and into buildings. These backups not only cause damage that is difficult to repair but also create health hazards.

Barriers are usually an earthen levee/berm or a concrete retaining wall. While levees and retaining walls can be large, spanning miles along a river, they can also be constructed on a much smaller scale to protect a single home or group of homes. The cost of a barrier will depend on the type of barrier and the size required to provide adequate protection. An earthen berm will generally be less expensive compared to an equivalent concrete barrier primarily due to the cost of materials. Another consideration is space; an earthen barrier requires a lot of additional width per height of structure compared to a concrete barrier to ensure proper stability. Maintenance and human intervention may be required.

Elevation of utilities is a cost-effective solution for flood protection. It is achieved through elevating flood prone utility components, machinery, and equipment. It does not prevent flood waters from impacting low floor elevations.

Drainage Improvements include overflow channels, channel straightening, restrictive crossing replacements, and runoff storage. Modifying the channel attempts to provide a greater carrying capacity for moving floodwaters away from areas where damage occurs. Whenever drainage improvements are considered as a flood mitigation measure, the effects upstream and downstream from the proposed improvements need to be considered as they may help one area but create new problems in another. These methods may require property owner cooperation and right-of-way acquisition. Sarasota County's Capital Improvement Program (CIP) includes stormwater system improvement projects that may add flood protection to areas identified as RLAs. It is recommended that the CIP projects be reviewed annually against the RLAs to identify possible funding sources and flood protection benefits for these areas. Stormwater system improvements can be a cost-effective and efficient mitigation measure for reducing flood hazards for buildings clustered together or affected by the same stormwater system. However, due to the low-lying nature of many areas within the County including stormwater systems and outfalls themselves, stormwater system improvements may not be effective or may need to be paired with other measures, such as property-owner improvements to individual properties. This could include filling and regarding direct runoff to existing or improved stormwater systems.

Property owners can call Sarasota County at (941) 861-5000 for a property consultation or site visit to evaluate drainage and retrofitting options. Visit www.scgov.net (keywords: flood protection).

Major stormwater flood control projects have been completed in Sarasota County through the CIP program along with other smaller stormwater projects designed to alleviate flooding throughout the County.

One major project, the Celery Fields, is a multi-purpose regional stormwater flood control facility and a multi-faceted stormwater project that incorporates flood protection, water quality improvements, wetland habitat restoration, and integration of public recreation and educational opportunities. Located south of the Fruitville Initiative properties in the Phillippi Creek Watershed, the project's primary objective is to alleviate flooding in the downstream urban area of the Phillippi Creek drainage basin.

The Celery Fields include four wet detention cells comprising 3,400 acres of upstream runoff north of Fruitville road that serves as floodplain storage and conveyance. The project consists of open marshlands, forested wetlands, upland buffers, deep ponds, shallow pools, canals, more than 600,000 wetland and upland plants (of which 7,000 were tree species for the forested wetland areas and upland buffers), and two boardwalks. The Celery Fields provide numerous low-impact activities: walking, biking, fishing, kayaking, and wildlife viewing - with a recorded 246 species of birds. This successful project is now part of the Florida Great Birding Trail with an observation mound, trails, and ponds adjacent to the newly constructed Sarasota Audubon Nature Center. The site is monitored in "real time" using the County's Automated Rainfall Monitoring System (ARM's) to accurately observe water elevations within the facility and downstream within Phillippi Creek to assure proper flood control operations during storm events.

The Bahia Vista Flood Reclamation Project is another major regional stormwater project within the Phillippi Creek drainage basin consisting of an earthen berm and pump station. Located along the west side of Phillippi Creek between Bahia Vista Street and Locklear Avenue, the primary objective is to reduce the risk of flooding for approximately 100 homes in the Oak Shores and Bellevue Terrace subdivisions. Other benefits include a passive park to promote resource conservation and outdoor recreation.

Current list of CIP projects (not displayed on map):

- ID 88042 – Bahia Vista Levee
- ID SWZ31 - Eastbrook Dr.
- ID 75832 – SWIRP Program
- ID 88043 – Dona Bay Phase 4 (King's Gate Weir Rehabilitation) [Completed 2024]
- ID 88052 – Alligator Creek Stream Restoration
- ID 88079 – Phillippi Creek Stream Restoration
- ID 88080 – South Venice Area 2 Porpoise Road (Completed)
- ID 88081 – South Venice Area 3
- ID 88095 – Sarah Avenue Drainage Improvements
- ID SWD03 - Sarasota Springs Repair, Restoration, or Replacement
- ID SWZ00 - Avenue A Improvements Option 1
- ID SWZ01 - Avenue A Improvements Option 2
- ID SWZ25 - Catfish Creek at Central Sarasota Pkwy & US41
- ID SWZ26 - Catfish Creek at Tamiami Trail
- ID SWZ29 - Colonia Lane drainage review
- ID SWZ32 - Englewood McCall Road Site
- ID SWZ34 - Forked Creek at Old Englewood Rd
- ID SWZ44 - Overbrook Drive at Forked Creek
- ID SWZ46 - Spruce Street
- ID SWZ48 - Catfish Creek at Tamiami Trail Bioswale System
- ID SWZ56 - Sorrento Havana Heights
- ID SWZ66 - Catfish Creek Regional Stormwater Facility

The mitigation measure implemented for each building will depend on the funding source, as referenced below, which will need to be determined at the time of project execution. In addition, property owner input greatly impacts which of these options are viable. Once the mitigation options are identified, a recommendation per the CRS manual is completed to identify the following:

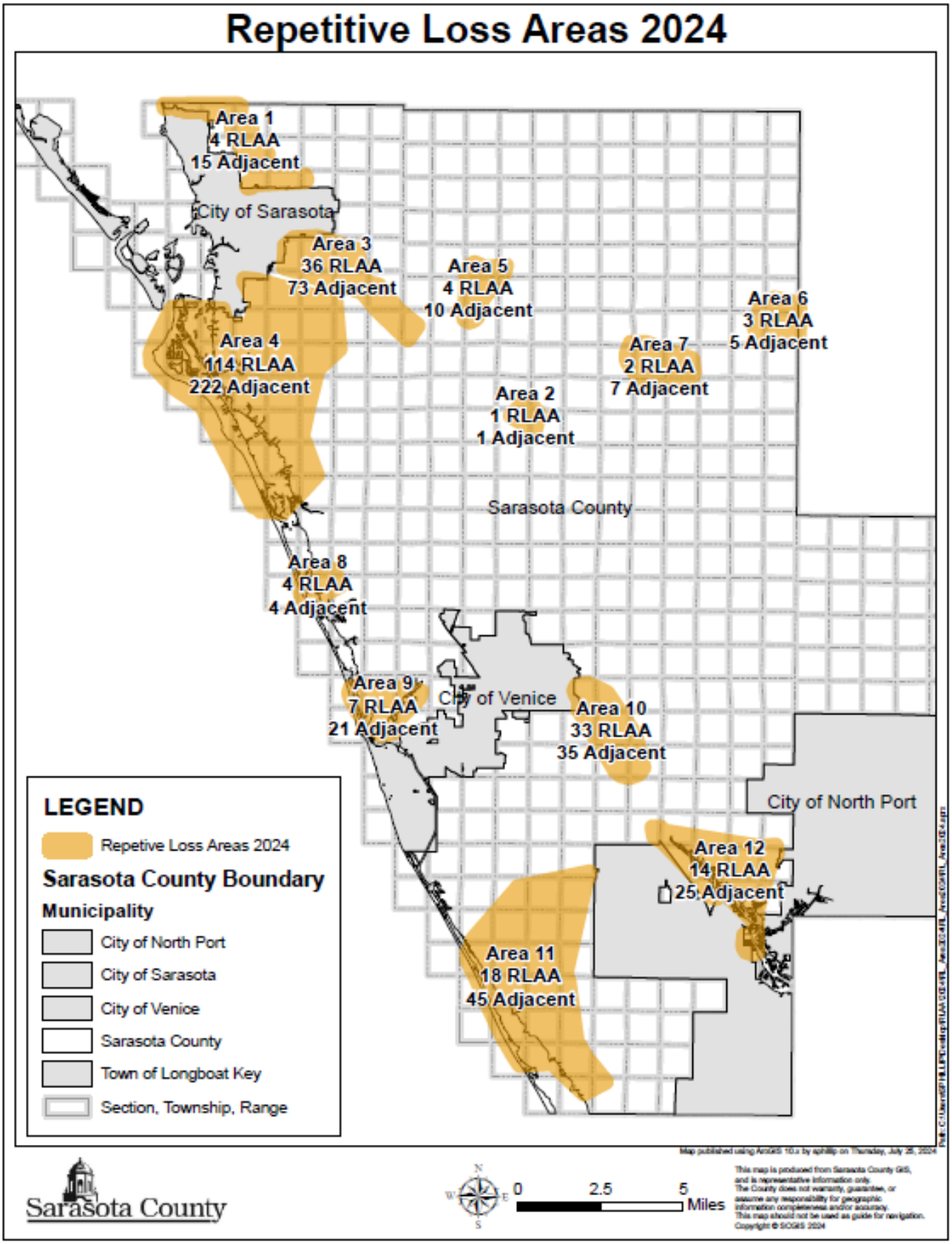
- **Who is responsible for implementing the mitigation action?**
  The responsible party will be either Sarasota County or the property owner for the first three primary mitigation options proposed.
- **When will the action be completed?**
  Typically, the mitigation action will be completed when or if funding becomes available to either the property owner or the County when the property owner makes a personal decision to pursue the mitigation proposed, when a natural event occurs where damage or losses exceed 50% of the value of the structure, when the cost of flood insurance is no longer affordable, or if the mitigation alternative becomes part of the County's annual maintenance plan.
- **How will the mitigation be funded?**
  The mitigation will be funded as annual allocations for FEMA grants, PDM grants, FMA grants, SBA loans, or when CIP funding becomes available for either the property owner or Sarasota County.

Table 2: Mitigation Method & Responsibility Breakdown

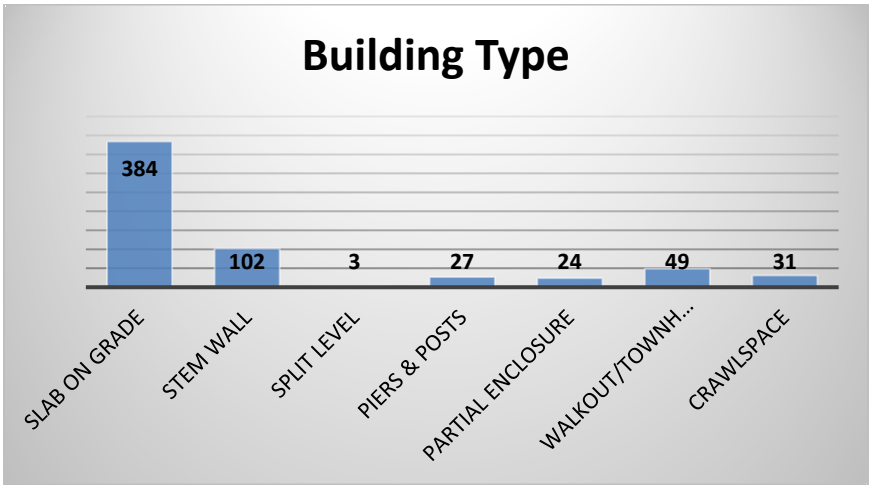
	Mitigation Method	Responsibility	Timeline	Funding - Comments
1	Elevation of structure	Property Owner	ASAP	Dependent on private or grant funding.
2	Acquisition and/or relocation	Sarasota County	ASAP	Dependent on private or grant funding. Requires owner to sell. Sarasota County does not have a funding program for acquisition.
3	Demolition and rebuild	Property Owner	ASAP	Dependent on private or grant funding. Will solve the problem of structure flooding.
4	Elevation of utilities	Property Owner	ASAP	Dependent on private or grant funding. Cost-effective way to protect utilities. It does not prevent flood waters from impacting low floor elevations.
5	Backflow preventer	Property Owner	ASAP	Dependent on private or grant funding. Cost-effective way to prevent sewer back-up issues from flooding.
6	Floodproofing	Property Owner	ASAP	Dependent on private or grant funding. Cost-effective but may require human intervention and adequate warning to install protective measures. May also require a maintenance plan.
7	Barriers & stormwater improvements	Sarasota County	ASAP	Dependent on private or grant funding. Stormwater system improvements may not be effective in critically low areas such as along the coastline.

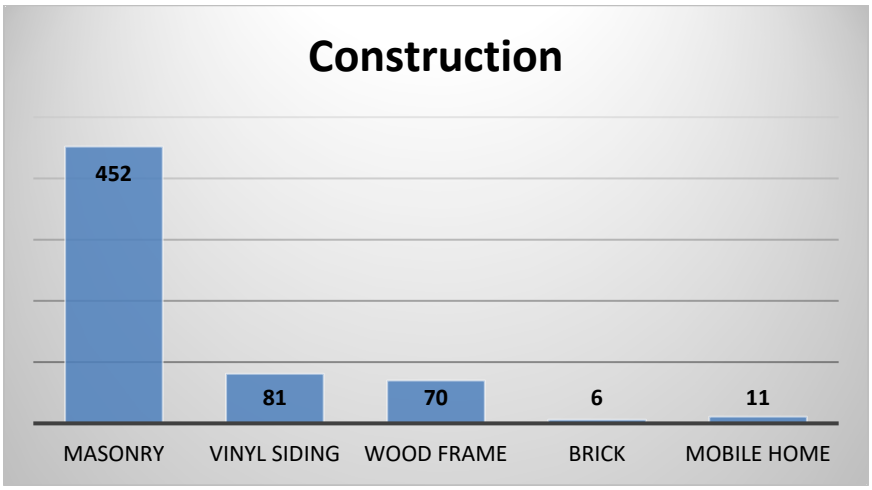
Additional can be found at www.scgov.net (keywords: floodplain management plan).

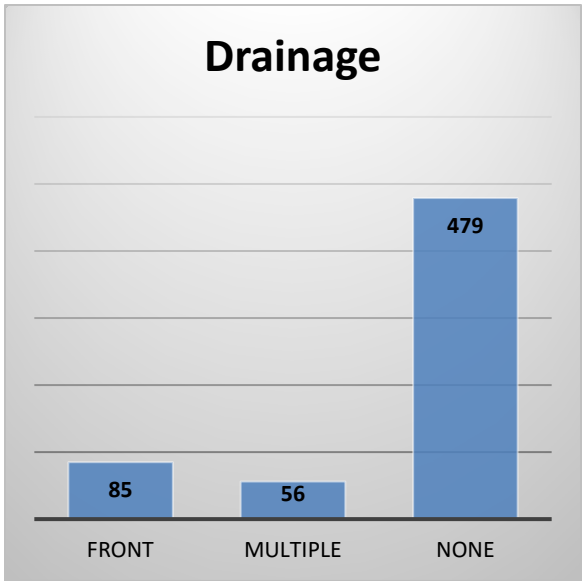
Figure 2: RLAA Overview Map

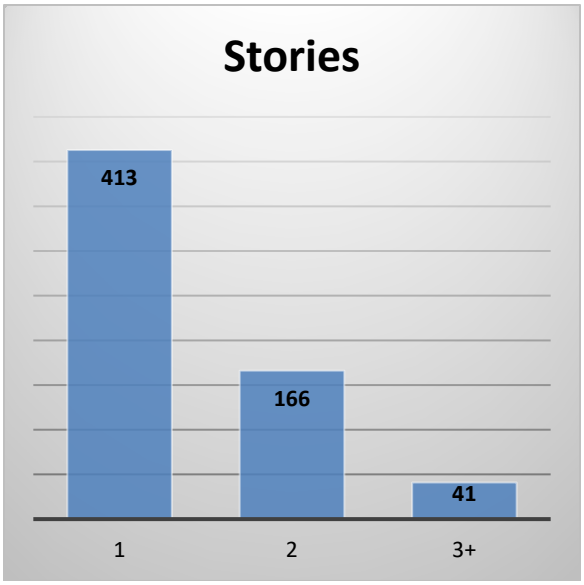


REPETITIVE LOSS AREA ANALYSIS OVERVIEW COUNTY-WIDE









REPETITIVE LOSS AREA ANALYSIS OVERVIEW OF SITES

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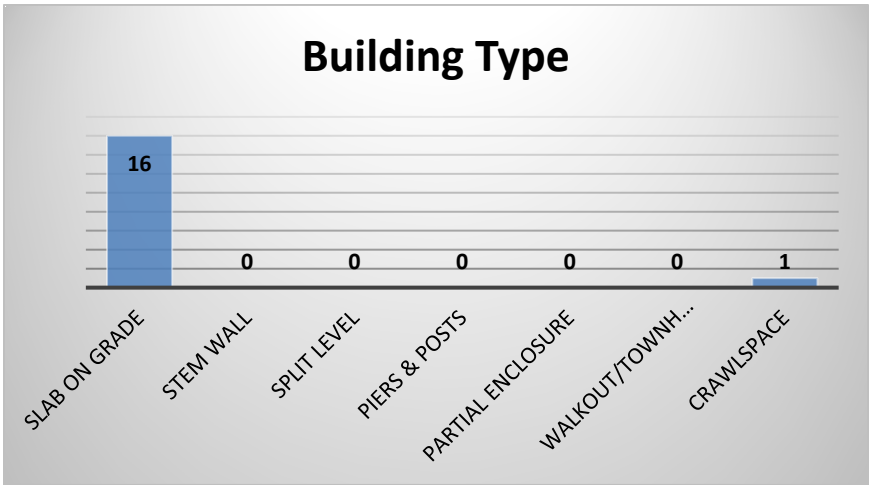

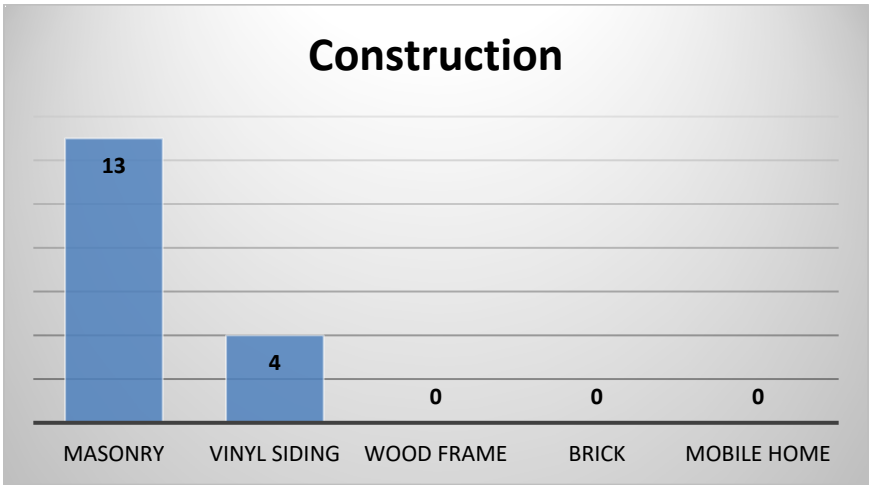

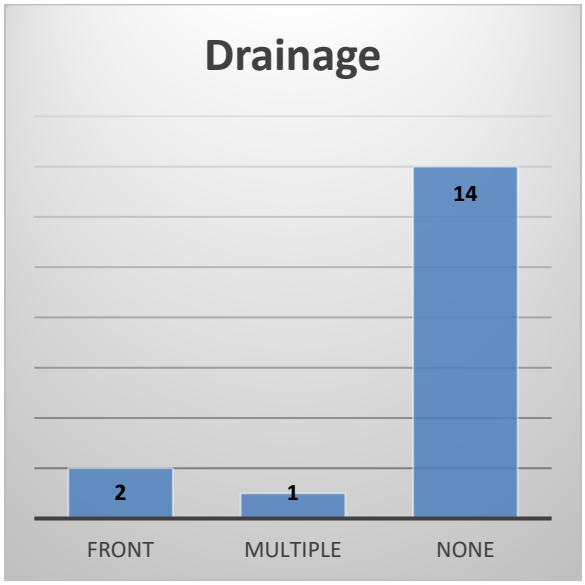

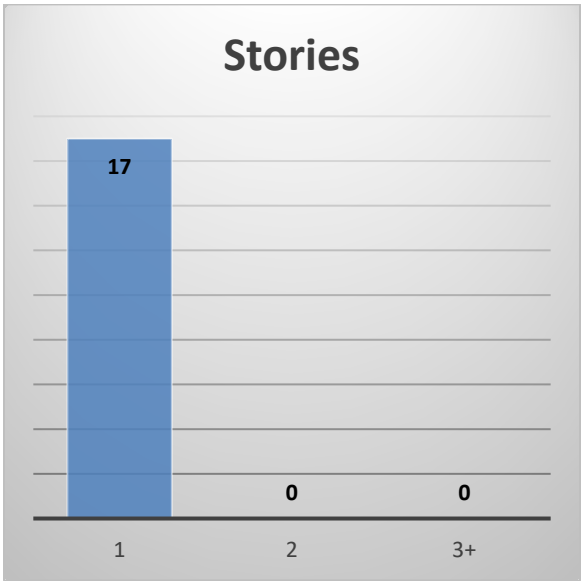

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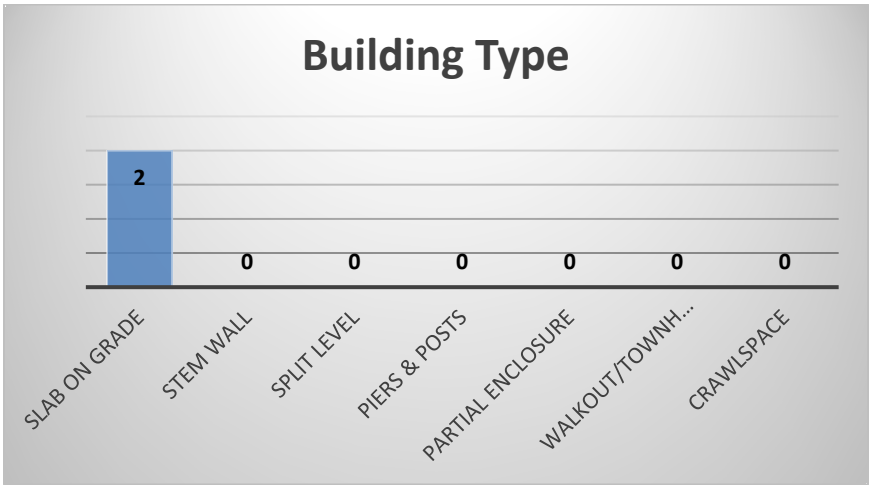
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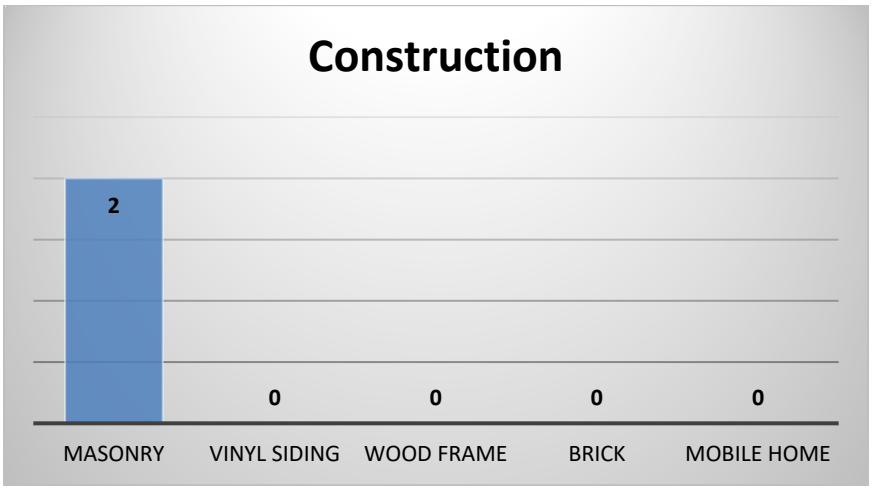
STEM WALL
SPLIT LEVEL
PIERS & POSTS
PARTIAL ENCLOSURE
WALKOUT/TOWNH...
CRAWLSPACE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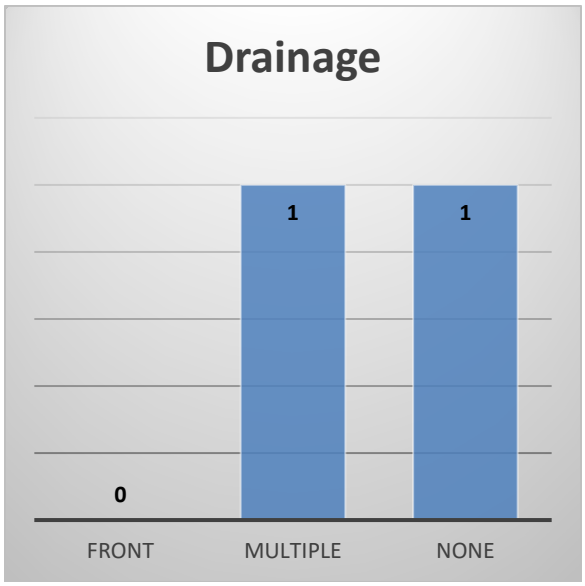
MASONRY
VINYL SIDING
WOOD FRAME
BRICK
MOBILE HOME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FRONT
MULTIPLE
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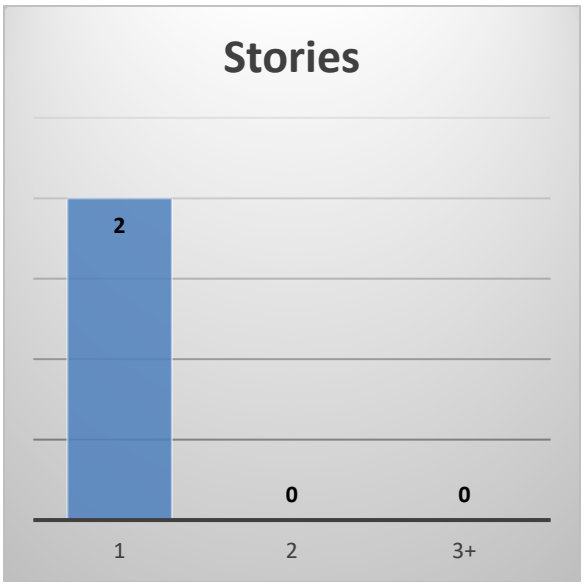
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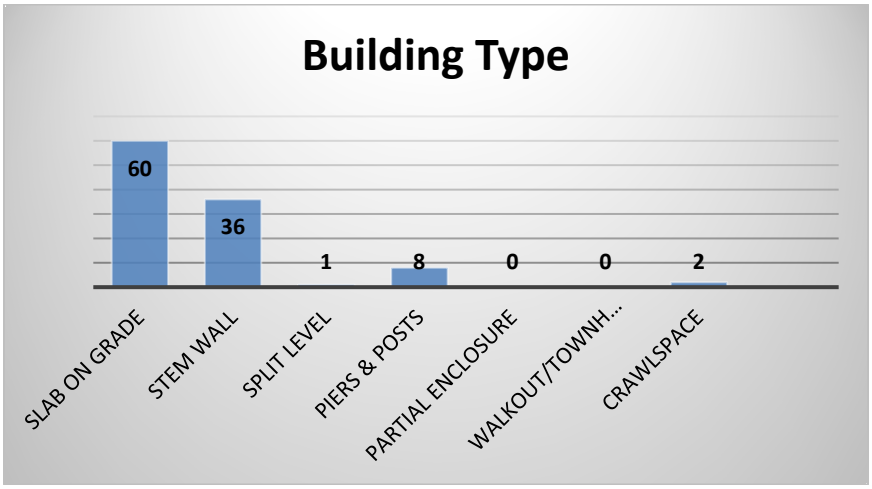
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PIERS & POSTS
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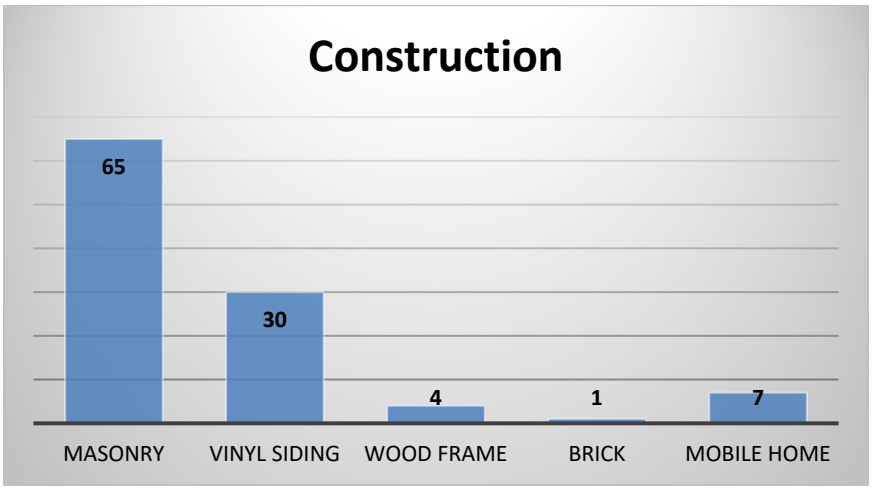
WALKOUT/TOWNH...
CRAWLSPACE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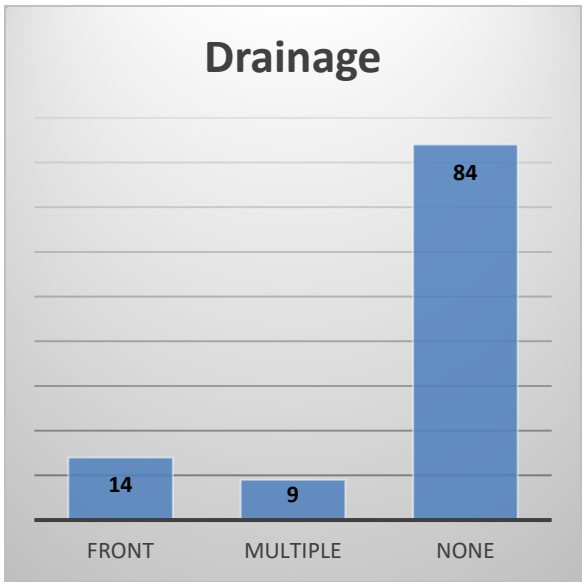
MASONRY
VINYL SIDING
WOOD FRAME
BRICK
MOBILE HOME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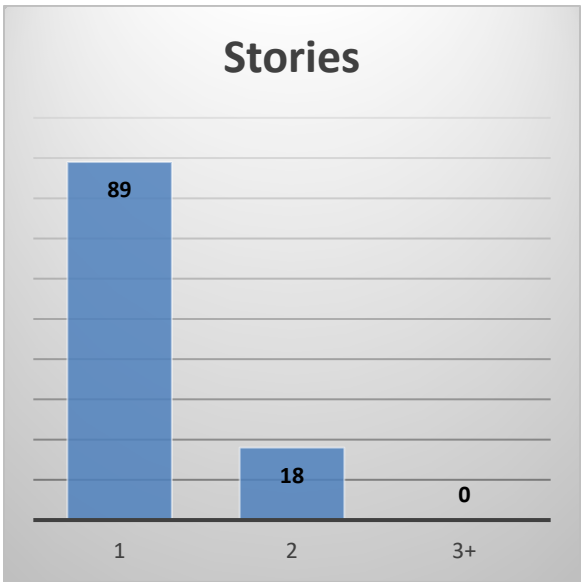
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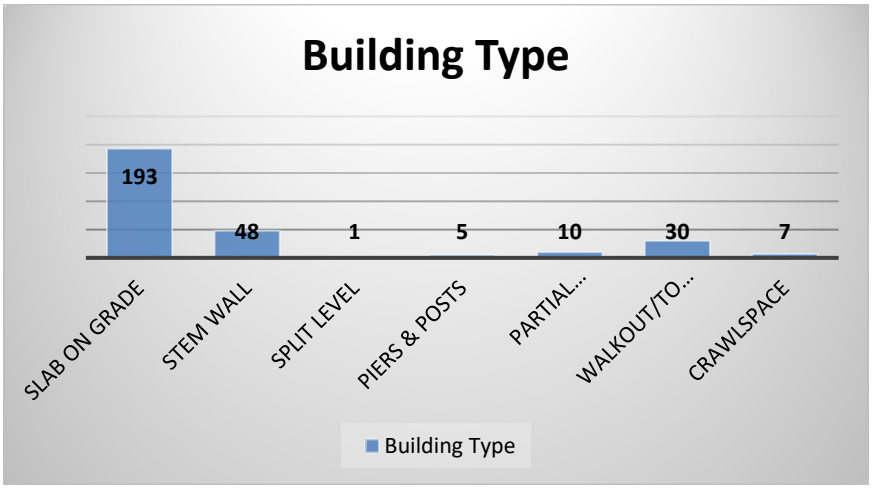
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PIERS & POSTS
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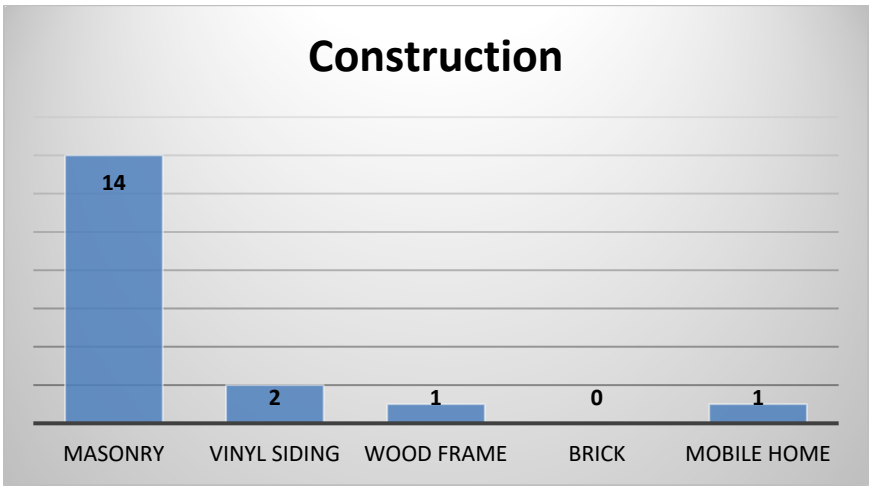
CRAWLSPACE
Building Type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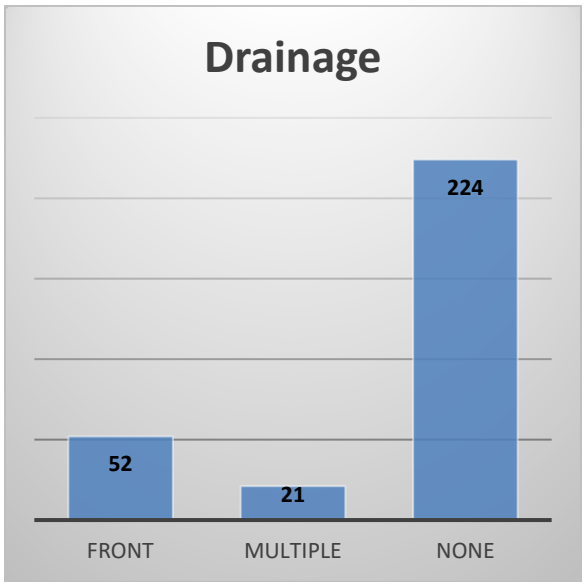
VINYL SIDING
WOOD FRAME
BRICK
MOBILE HOME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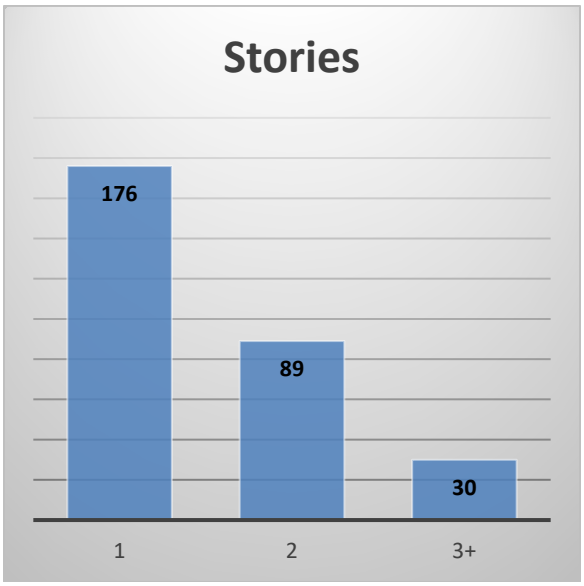
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1
2
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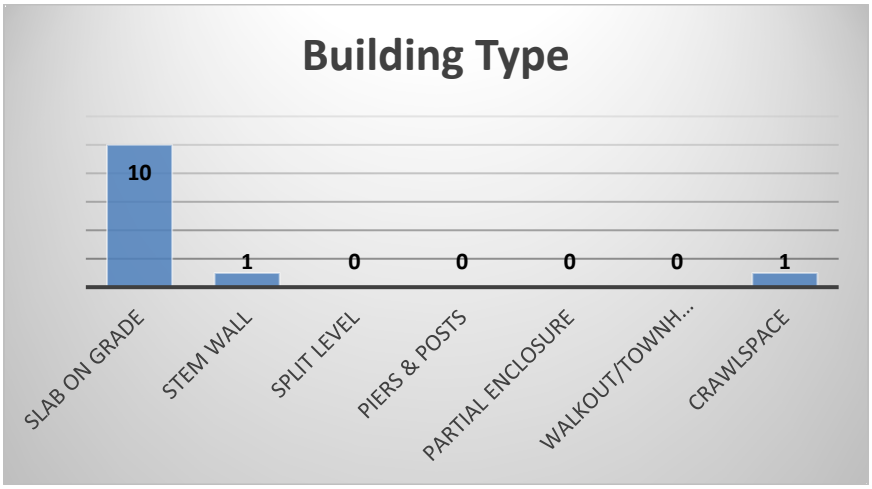
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PIERS & POSTS
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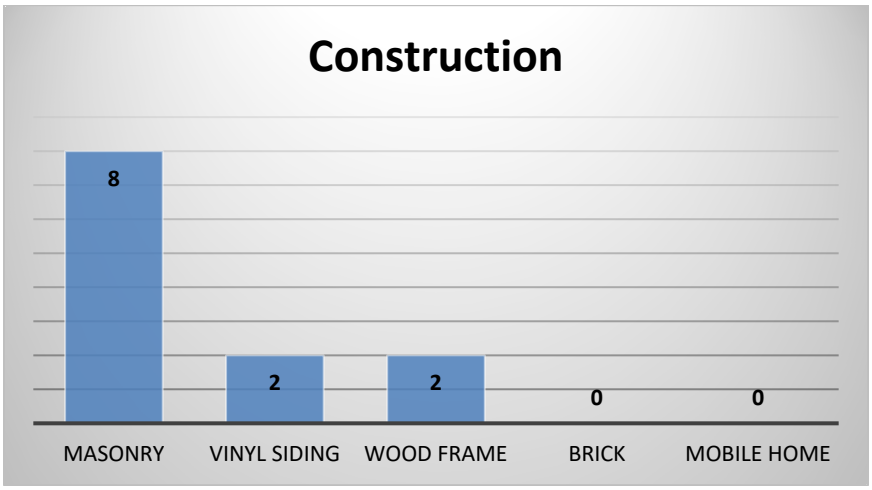
WALKOUT/TOWNH...
CRAWLSPACE


Construction
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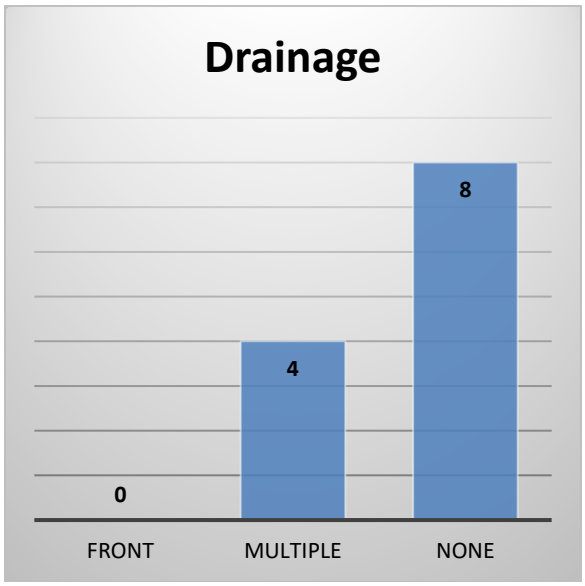
VINYL SIDING
WOOD FRAME
BRICK
MOBILE HOME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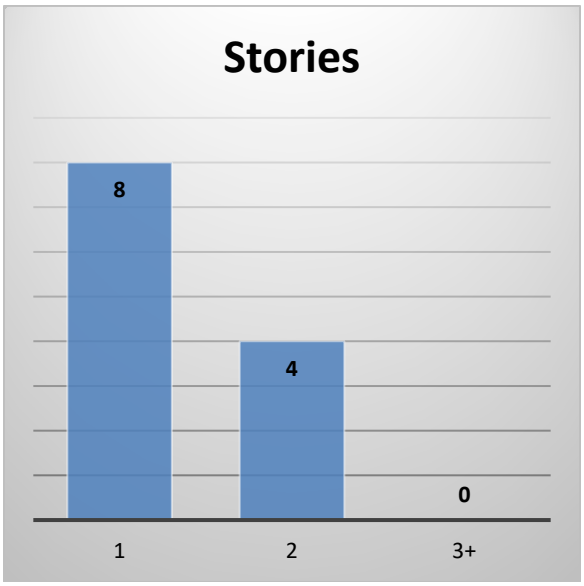
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2
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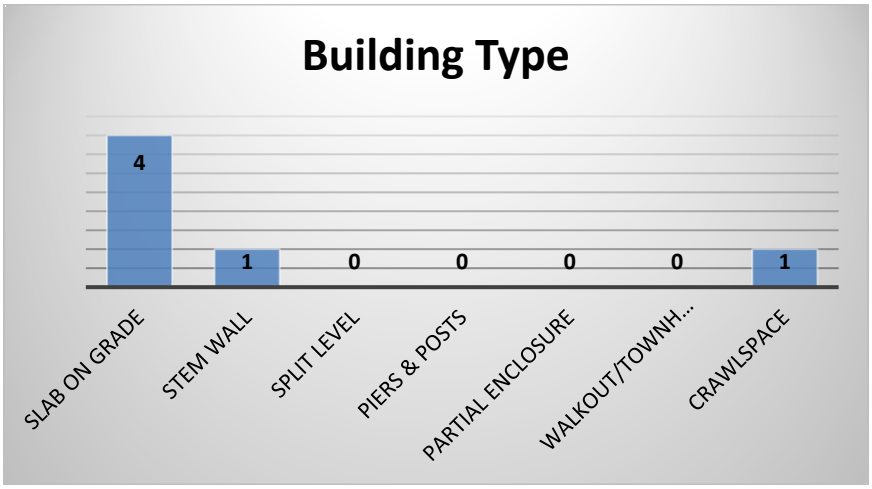
AREA 6


Building Type
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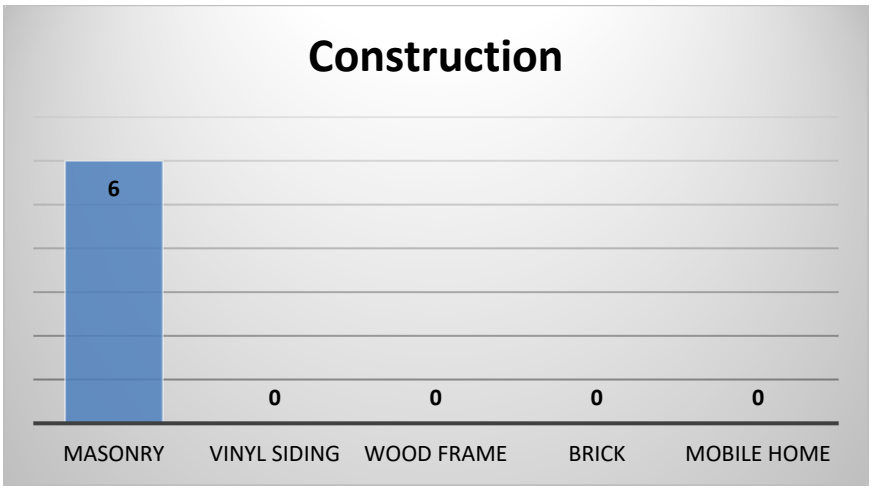
STEM WALL
SPLIT LEVEL
PIERS & POSTS
PARTIAL ENCLOSURE
WALKOUT/TOWNH...
CRAWLSPACE


Construction
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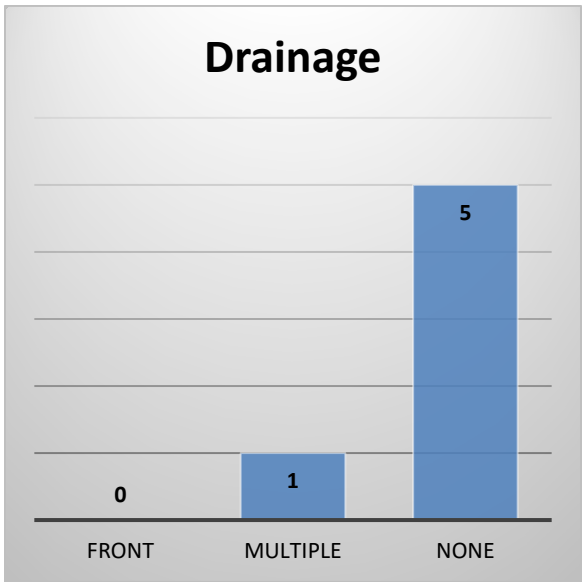
MASONRY
VINYL SIDING
WOOD FRAME
BRICK
MOBILE HOME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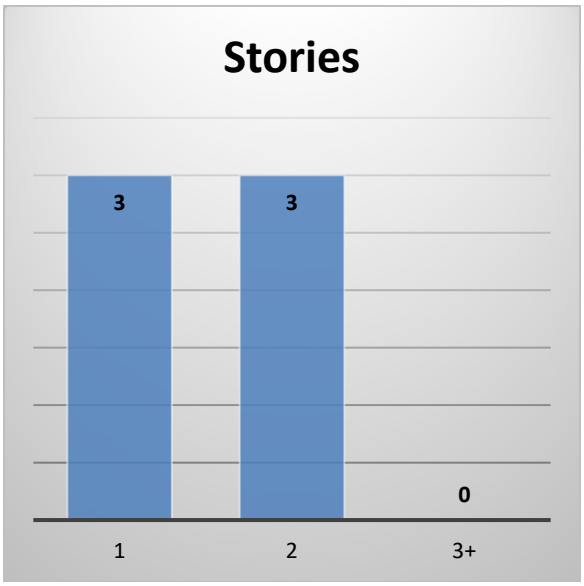
Stories
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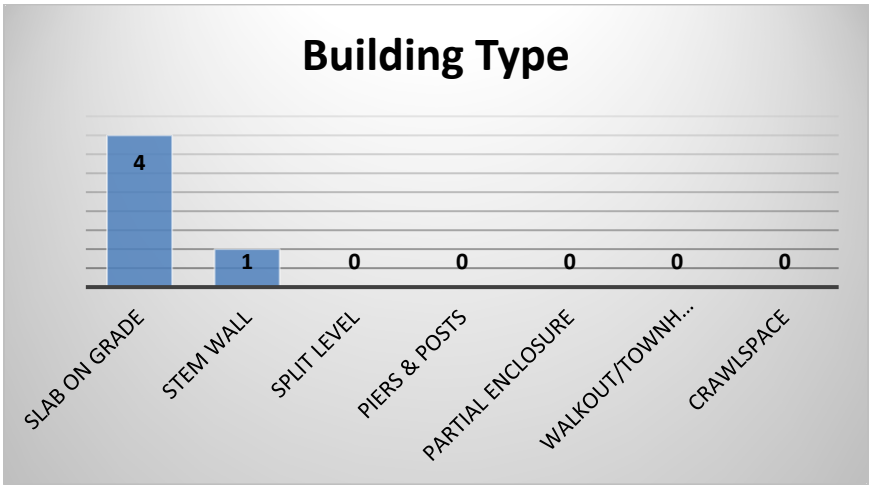
1
2
3+

AREA 7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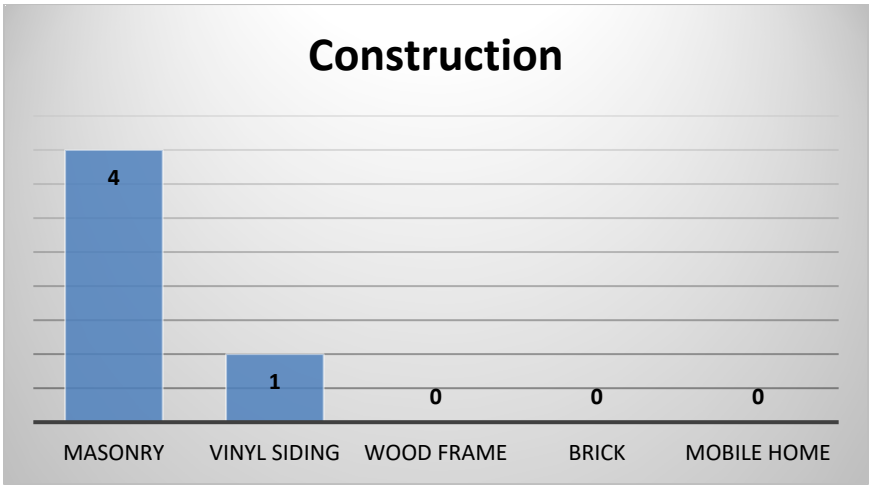
STEM WALL
SPLIT LEVEL
PIERS & POSTS
PARTIAL ENCLOSURE
WALKOUT/TOWNH...
CRAWLSPACE


Construction
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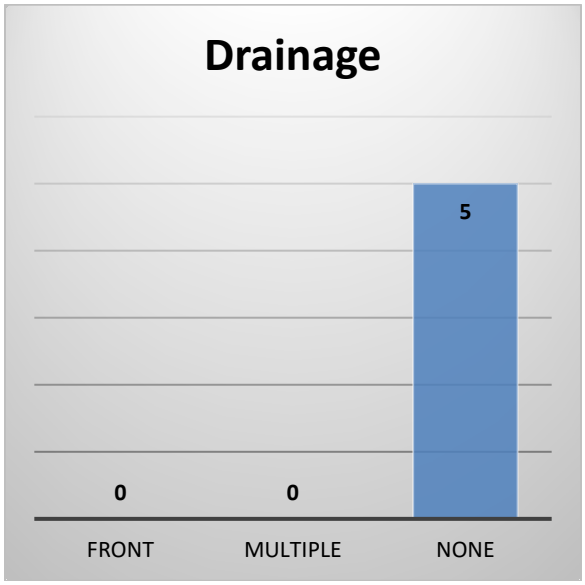
MASONRY
VINYL SIDING
WOOD FRAME
BRICK
MOBILE HOME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MULTIPLE
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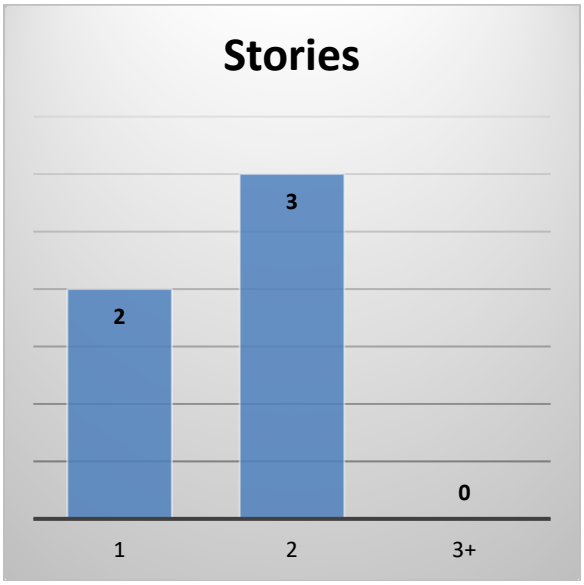
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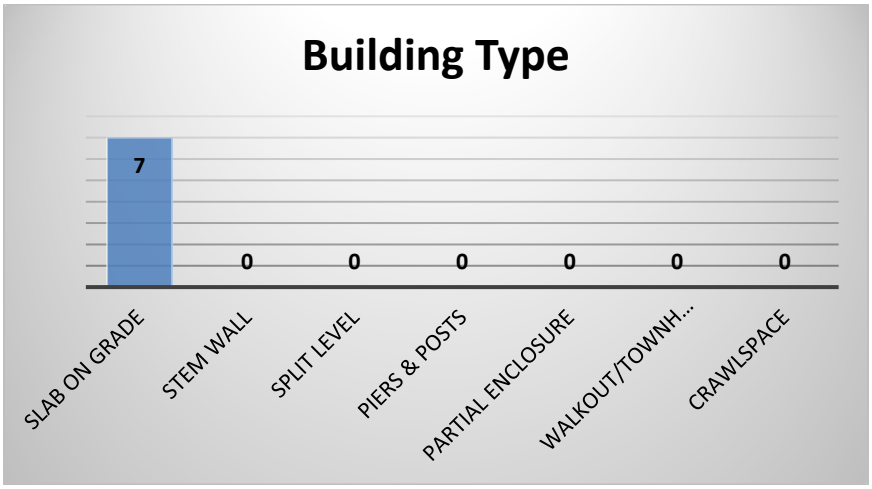
1
2
3+

AREA 8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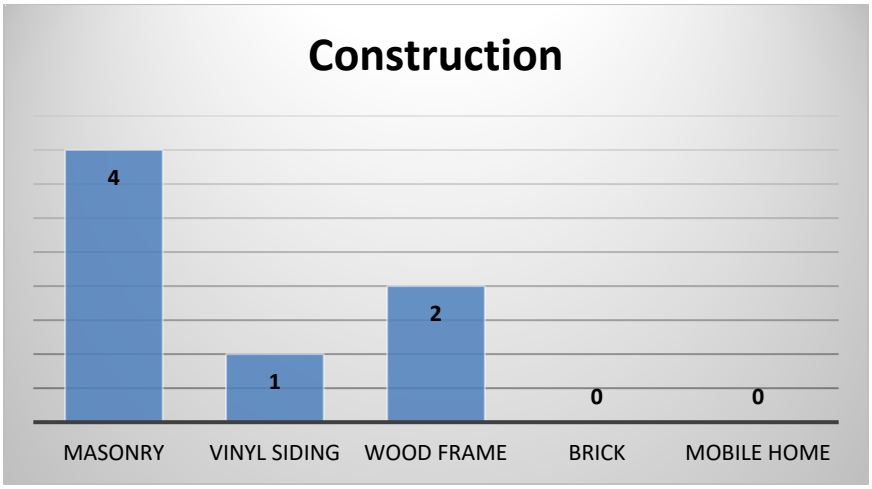
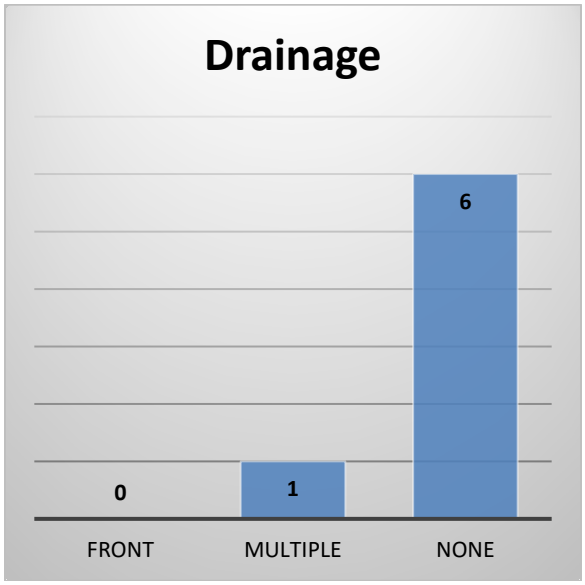
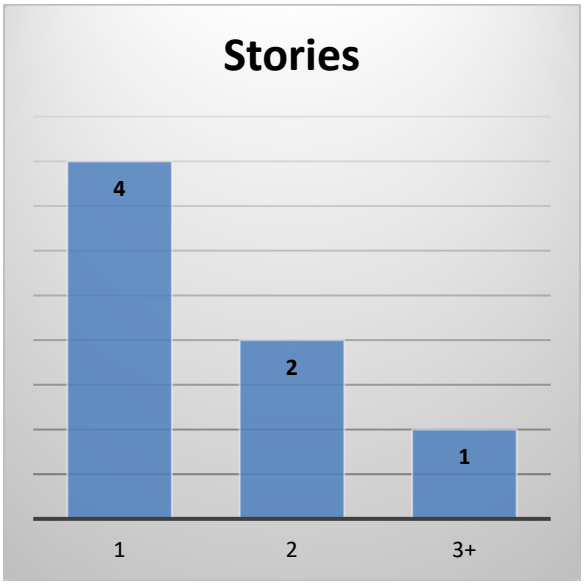
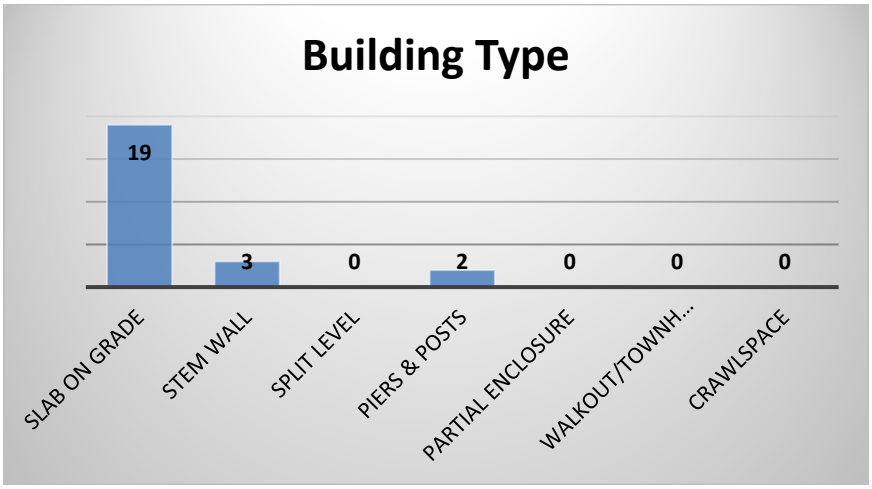
SLAB ON GRADE
STEM WALL
SPLIT LEVEL
PIERS & POSTS
PARTIAL ENCLOSURE
WALKOUT/TOWNH...
CRAWLSPACE

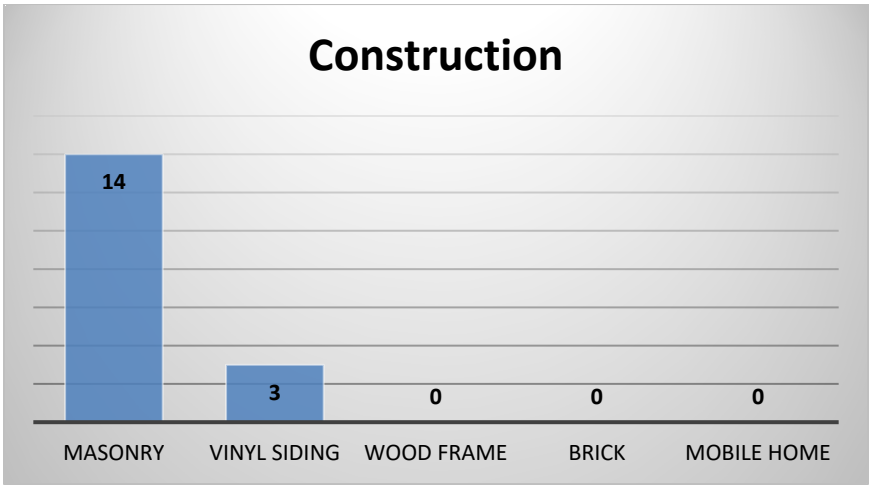

Construction
4
1
2
0
0
MASONRY
VINYL SIDING
WOOD FRAME
BRICK
MOBILE HOME

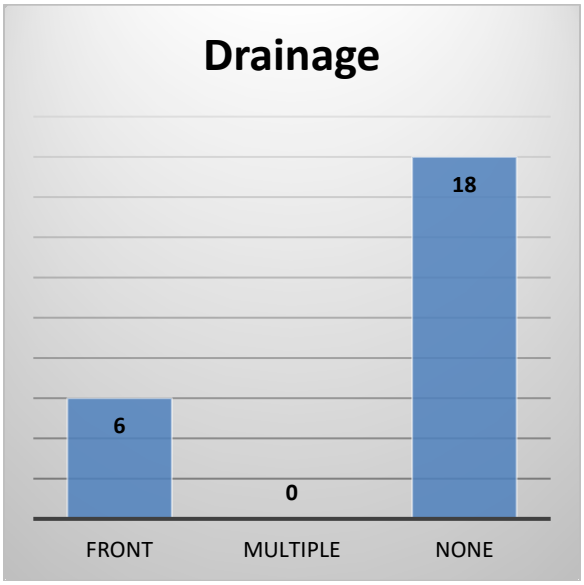

Drainage
0
1
6
FRONT
MULTIPLE
NONE

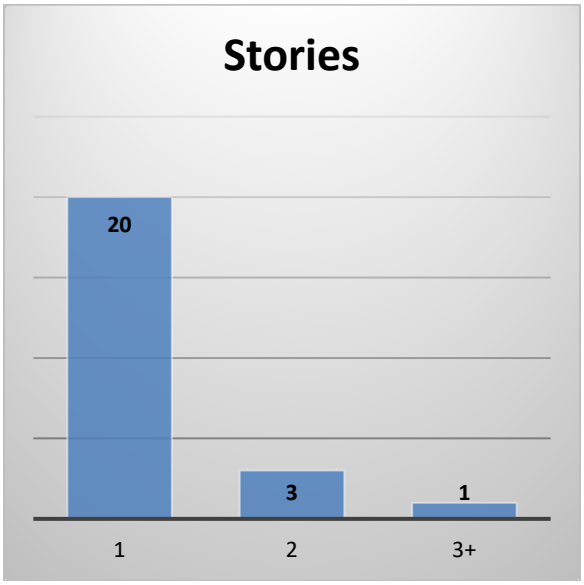

Stories
4
2
1
1
2
3+

AREA 9

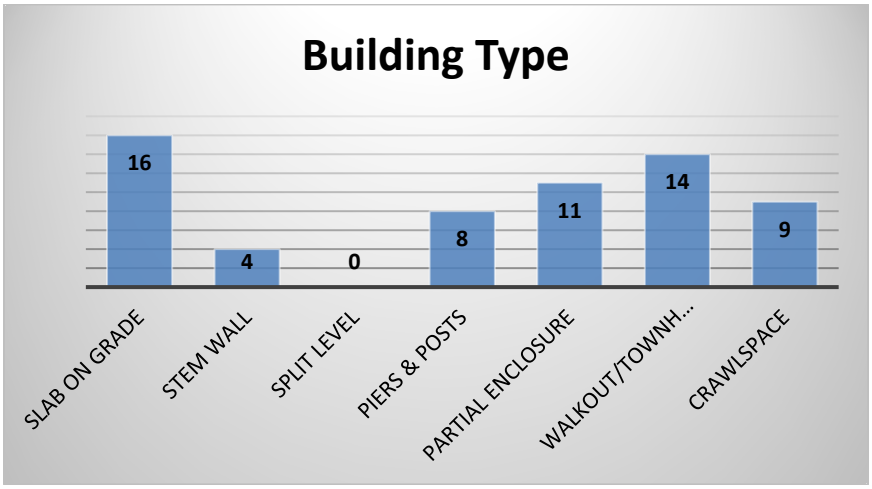

Building Type
19
3
0
2
0
0
0
SLAB ON GRADE
STEM WALL
SPLIT LEVEL
PIERS & POSTS
PARTIAL ENCLOSURE
WALKOUT/TOWNH...
CRAWLSPACE

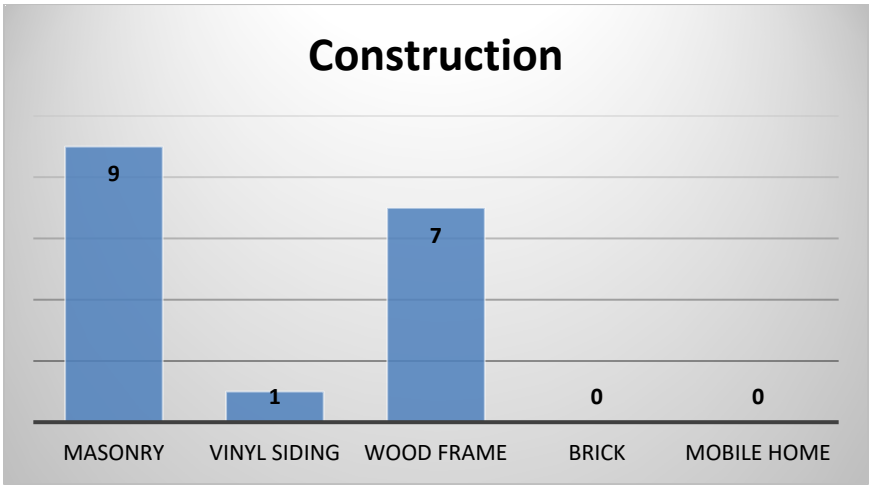

Construction
14
3
0
0
0
MASONRY
VINYL SIDING
WOOD FRAME
BRICK
MOBILE HOME

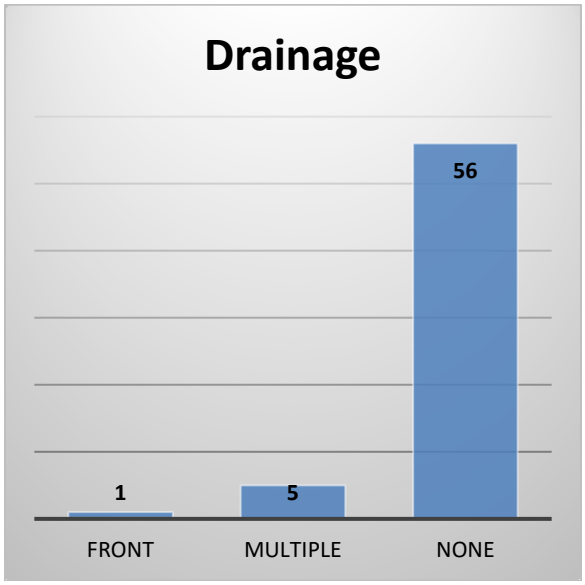

Drainage
6
0
18
FRONT
MULTIPLE
NONE

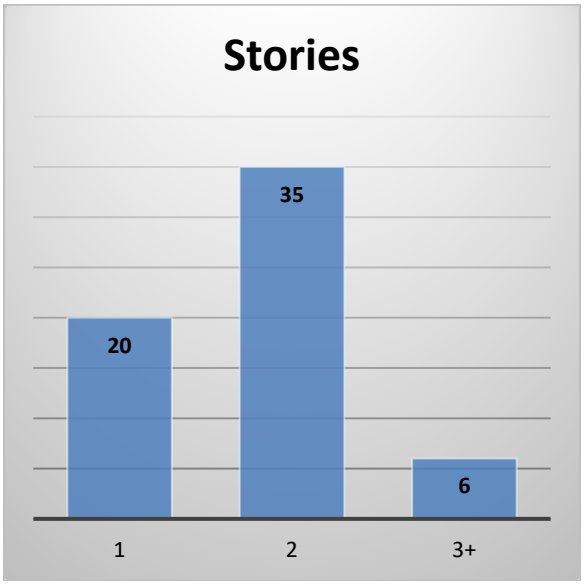

Stories
20
3
1
1
2
3+

AREA 10

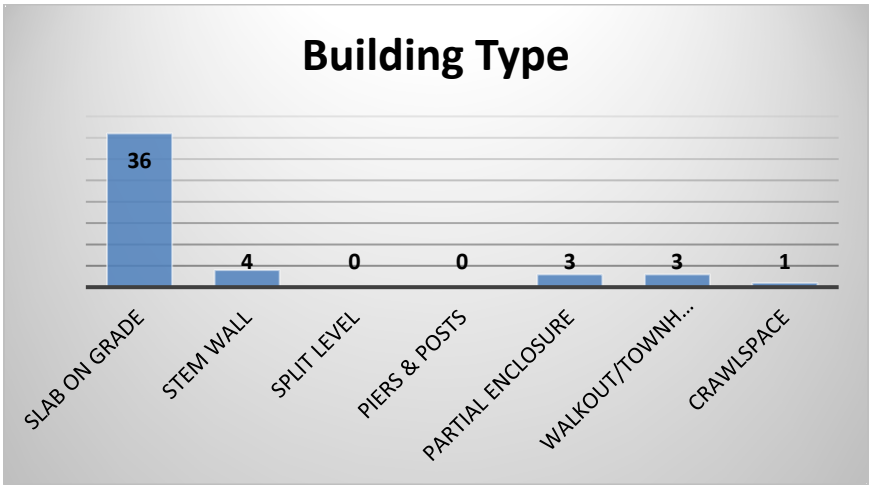

Building Type
16
4
0
8
11
14
9
SLAB ON GRADE
STEM WALL
SPLIT LEVEL
PIERS & POSTS
PARTIAL ENCLOSURE
WALKOUT/TOWNH...
CRAWLSPACE

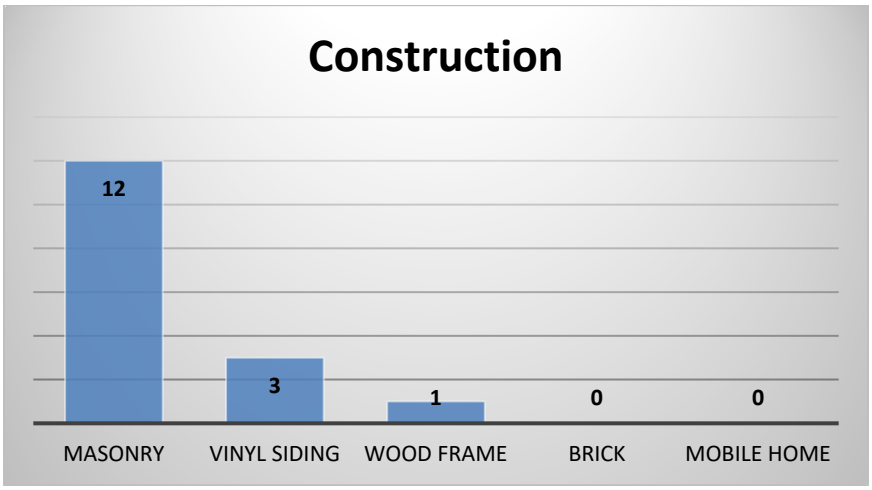

Construction
9
1
7
0
0
MASONRY
VINYL SIDING
WOOD FRAME
BRICK
MOBILE HOME

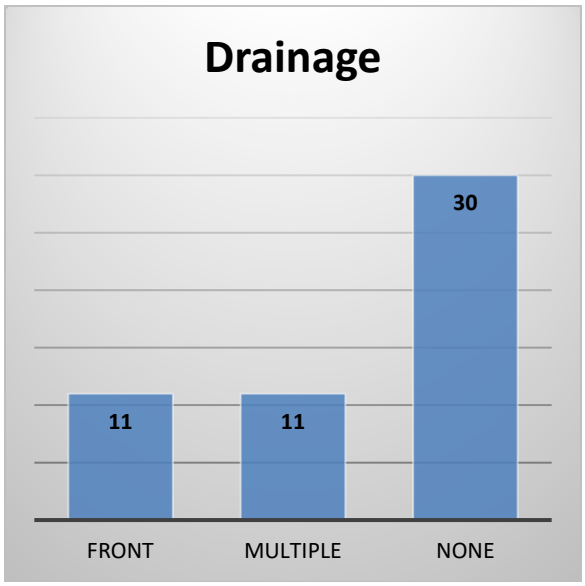

Drainage
1
5
56
FRONT
MULTIPLE
NONE

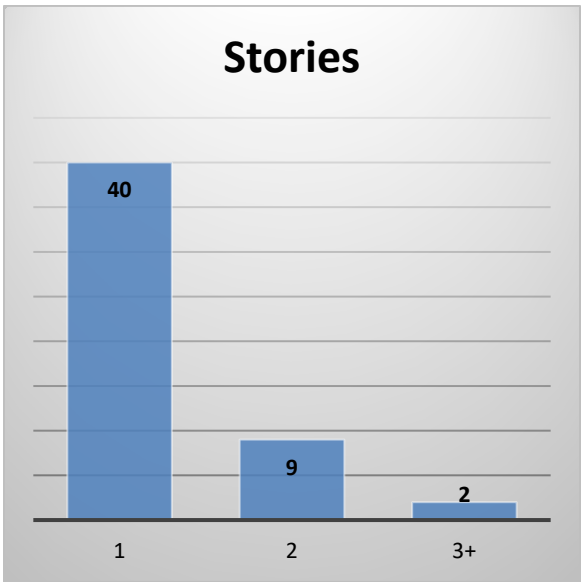

Stories
20
35
6
1
2
3+

AREA 11

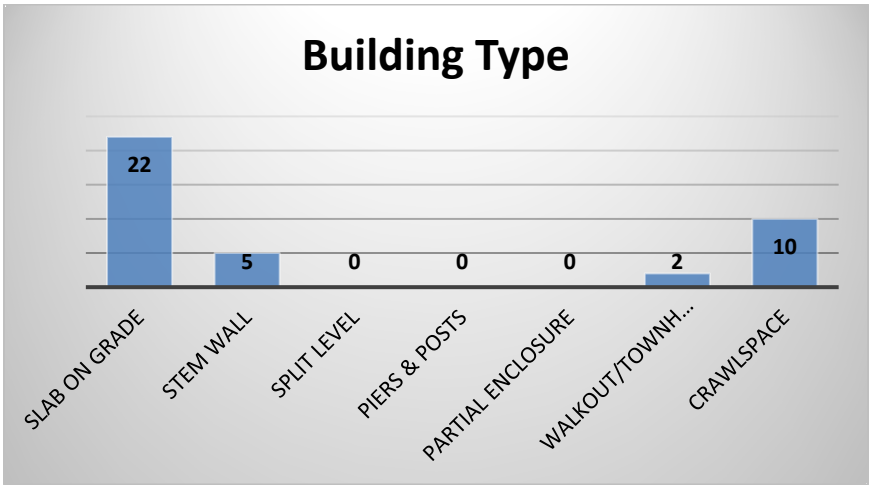

Building Type
36
4
0
0
3
3
1
SLAB ON GRADE
STEM WALL
SPLIT LEVEL
PIERS & POSTS
PARTIAL ENCLOSURE
WALKOUT/TOWNH...
CRAWLSPACE

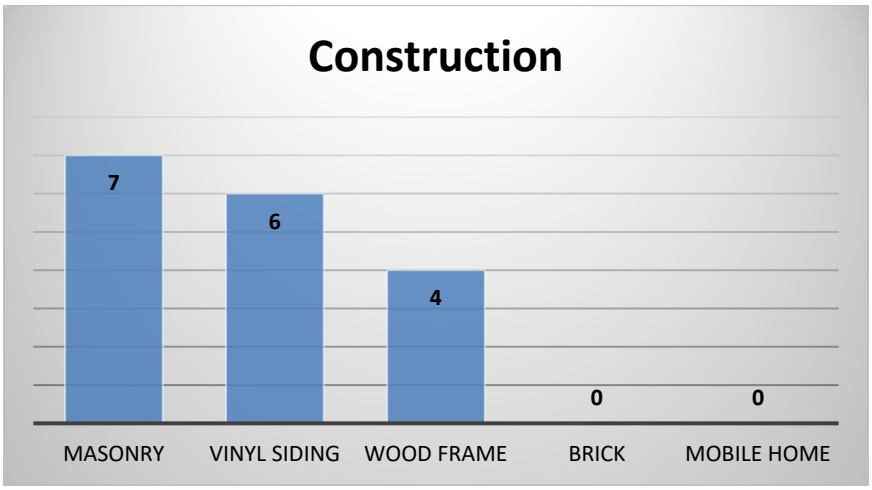

Construction
12
3
1
0
0
MASONRY
VINYL SIDING
WOOD FRAME
BRICK
MOBILE HOME

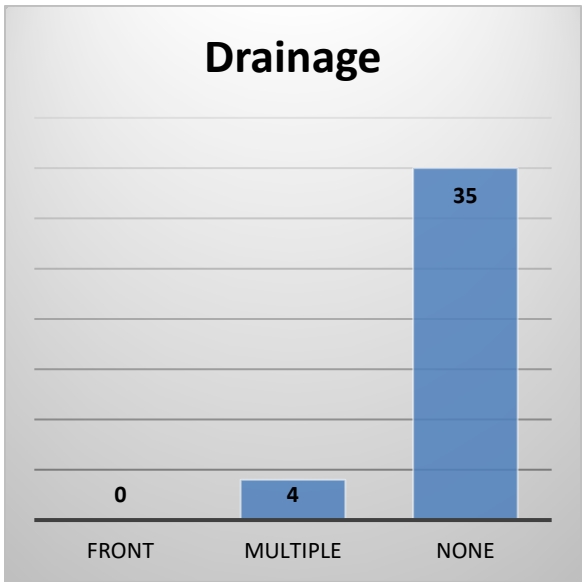

Drainage
11
11
30
FRONT
MULTIPLE
NONE

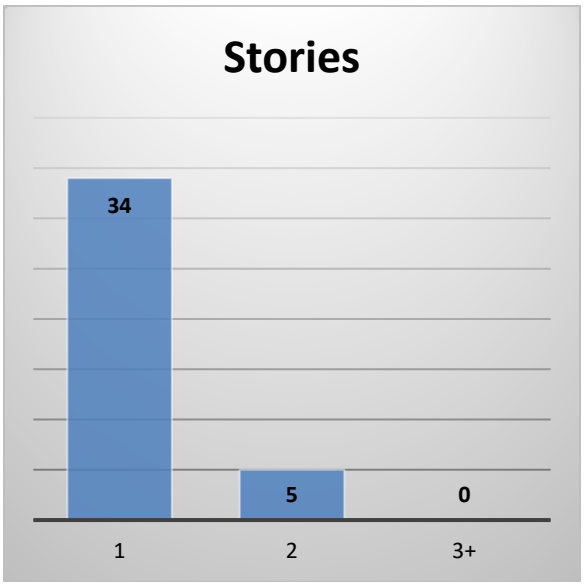

Stories
40
9
2
1
2
3+

AREA 12


Building Type
22
5
0
0
0
2
10
SLAB ON GRADE
STEM WALL
SPLIT LEVEL
PIERS & POSTS
PARTIAL ENCLOSURE
WALKOUT/TOWNH...
CRAWLSPACE


Construction
7
6
4
0
0
MASONRY
VINYL SIDING
WOOD FRAME
BRICK
MOBILE HOME


Drainage
0
4
35
FRONT
MULTIPLE
NONE


Stories
34
5
0
1
2
3+

2.9 REFERENCES

The information gathered for this report was found from several sources as listed below:

- Address Points
- Aerials
- Building Footprints
- Community Flood Hazard Areas
- County Parcels
- FEMA Map Service Center (2021)
- Fema.gov (2018). *Benefit-Cost Analysis | FEMA.gov*. [online] Available at: https://www.fema.gov/benefit-cost-analysis [Accessed 22 Jul. 2018]
- Field analysis of each property
- Homeowner Comments
- Property Appraisers Database
- Sarasota County GIS Data (2021)
- Sarasota County. (2021). *Sarasota County Unified Local Mitigation Strategy*, January 2021
- The Community Rating System Coordinator's Manual. (2017). *National Flood Insurance Program Community Rating System*, 2017 Edition.

3. SUPPLEMENTAL INFORMATION

3.1 OUTREACH LETTER

Figure 3: Outreach Postcard to Notify Properties within RLAs.

REPETITIVE LOSS AREA ANALYSIS

Dear Property Owner,

If you've received this postcard, then your structure was identified by Sarasota County as being located in a repetitively flooded area. Your structure may have suffered repetitive flood damage and you may be eligible for grant money to mitigate the structure.

Sarasota County can be subject to storm surge flooding from the Gulf of Mexico and/or excessive rainfall from a subtropical event. Flood insurance remains one of the best and easiest ways to protect your property. Property owners recover from floods quicker when they have flood insurance and Sarasota County saves NFIP policy holders 25% on flood insurance premiums through the Community Rating System (CRS) Program.

To complete the Sarasota County Repetitive Loss Area Analysis Survey, scan the QR Code.

For more information, visit
sarasota.wateratlas.org/FPRLA

Sarasota County Public Works
Call 311 or 941-861-5000
1001 Sarasota Center Blvd
Sarasota, FL 34240

Questions? Contact CRS Coordinator Noah Taylor.
Call 941-861-0917 or email ntaylor@scgov.net.

SARASOTA COUNTY
PUBLIC WORKS
STORMWATER 58610401
1001 SARASOTA CENTER BLVD
SARASOTA , FL 34240

«FULLADDRESS»

Sarasota County
scgov.net | call 311

3.2 RESPONSES FROM PROPERTY OWNERS

The following are responses from property owners for the reporting year. Some information may have been removed to protect the privacy of the owners. Previous responses can be found in older reports.

There was no response from homeowners to the 2024 outreach letter; however, a total of 73 people have signed up for the CRS Newsletter using the embedded QR code link to receive information via email.

APPENDIX A: ANNUAL REVIEW AND UPDATE

REPETITIVE LOSS AREA TOTALS						
Review Year	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**
Total Structures in all RLAs	☒	☒	☒	☐	☐	☐
Total RL Properties	☒	☒	☒	☐	☐	☐
Total SRL properties	☒	☒	☒	☐	☐	☐
Total Mitigated RL properties to-date	☒	☒	☒	☐	☐	☐
Total Mitigated SRL properties to-date	☒	☒	☒	☐	☐	☐
Total Insurance claims since 1978	☒	☒	☒	☐	☐	☐
Total insurance claims (in thousands)	☒	☒	☒	☐	☐	☐
Average insurance claim (in thousands)	☒	☒	☒	☐	☐	☐
Recommended Mitigation: Demolition or relocate the building	☒	☒	☒	☐	☐	☐
Recommended Mitigation: Elevate the building	☒	☒	☒	☐	☐	☐
Recommended Mitigation: Elevate the components	☒	☒	☒	☐	☐	☐
Recommended Mitigation: Dry floodproof the building	☒	☒	☒	☐	☐	☐
Recommended Mitigation: Wet floodproof the building	☒	☒	☒	☐	☐	☐
Recommended Mitigation: Sewer backup protection	☒	☒	☒	☐	☐	☐
Recommended Mitigation: Redirect on-site drainage away	☒	☒	☒	☐	☐	☐
Recommended Mitigation: Repair or maintenance of systems	☒	☒	☒	☐	☐	☐
Recommended Mitigation: System improvements or modification	☒	☒	☒	☐	☐	☐
Recommended Mitigation: Flow diversions	☒	☒	☒	☐	☐	☐
Recommended Mitigation: Berms, levees, or floodwalls	☒	☒	☒	☐	☐	☐