



Hurricane Ian NFIP Claims Analysis

December 2023



FEMA

DR-4673-FL

Detailed NFIP Claims Analysis from Hurricane Ian of Single-Family Houses in Representative Areas of Interest

Introduction

Through 2022, Hurricane Ian is the fourth highest flood disaster by National Flood Insurance Program (NFIP) payouts, behind Hurricanes Katrina, Harvey, and Sandy. Based on the areas impacted by Hurricane Ian, there were several sites that enabled a comparison of newer versus older single-family houses. With over 37,000 Hurricane Ian NFIP claims throughout Florida, and over 22,000 claims in Lee County alone, representative areas were selected based on a high percentage of NFIP policies in force and a large age-of-construction distribution, whenever possible. The primary purpose of the comparison was to quantify the differences in damage to single-family residential houses based on building characteristics and help make recommendations to floodplain managers, building code officials, designers, contractors, home owners, and emergency managers to improve flood-resistant design and construction practices.

To support a comparison of flood damage to single-family residential buildings, FEMA's Mitigation Assessment Team (MAT) used NFIP policy claims data. The MAT selected 12 Areas of Interest with varying flood sources in Desoto, Lee, and Collier counties with most of them (nine) in Lee County. Figure 1 provides a map of the 12 areas along with the Hurricane Ian track. Parcel data were gathered for over 2,800 properties across the 12 areas and NFIP policy information was collected for over 1,200 of these properties (about a 45% penetration rate for flood insurance take-up across the areas). Parcel data attributes included the year built and size of the house in square feet. The size of each house was used to help quantify a claim per square foot of house, because the average size of a single-family house has increased over time. Table 1 provides a summary of the number of single-family residential buildings across the 12 Areas of Interest along with the number of insured buildings grouped by year built. The percentages in Table 1 are intended to help illustrate how similar the distribution of buildings built by decade is compared to the distribution of policies by decade. Note the percent distribution of buildings by decade and average size are relatively consistent across the total number of buildings versus those with a flood insurance policy. The distribution is not always as consistent and varies by specific Area of Interest.



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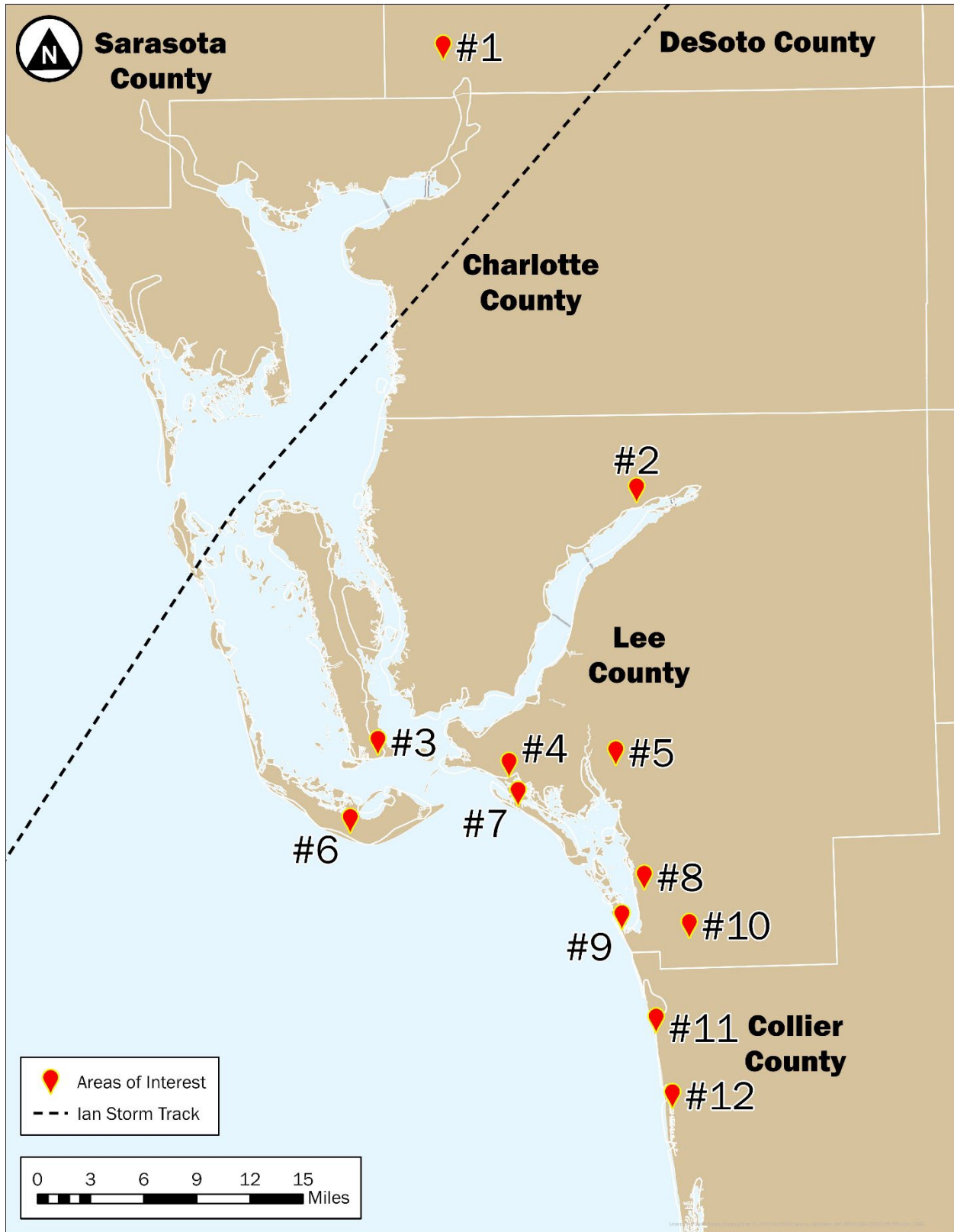


Figure 1: Areas of Interest evaluated in this Appendix

Table 1: Single-Family Residential Building Summary across the 12 Areas of Interest

Decade Built	Number of Buildings	Percent of All Buildings	Average Size (square feet)	Number of Buildings with Policies	Percent of All Policies	Average Size (square feet)
Pre 1980	1,057	37%	1,695	426	34%	1,799
1980s	695	24%	1,826	344	27%	1,863
1990s	342	12%	2,262	173	14%	2,256
2000s	433	15%	2,634	205	16%	2,675
Post 2010	341	12%	3,035	122	10%	2,977
All	2,868		2,095	1,270		2,133

The MAT collaborated with Federal Emergency Management Agency (FEMA) Flood Insurance staff to collect policy and claims data throughout the 12 areas. Various attributes, including, but not limited to, claims status, *elevated* versus *non-elevated building*, pre- versus post-Flood Insurance Rate Map (FIRM) construction, primary residence, claims payment, and building and contents coverage limits, were pulled from NFIP policy data for the 1,270 NFIP policies that were active prior to Hurricane Ian across the 12 Areas of Interest. Table 2 provides a summary of select NFIP policy data attributes. The numbers in Table 2 indicate the quantity (and percentages) of all the insured single-family buildings (of 1,270). For example, there were 413 *elevated buildings*, which equates to 33% of the total insured single-family buildings. Note, while not every policy analyzed had contents coverage (only 76%), they each had building coverage.

Table 2: Summary of NFIP Insured Single-Family Building Attributes

	Elevated	Post-FIRM	Primary Residence	Contents Coverage	Average Building Coverage	Average Contents Coverage
Yes	413 (33%)	638 (50%)	944 (74%)	963 (76%)	\$236,984	\$74,342
No	857 (67%)	632 (50%)	326 (26%)	307 (24%)		
All	1,270					

The 12 Areas of Interest were selected because they represented most of the flood sources visited by the MAT during the pre-MAT in October 2022 or the full MAT deployment in January 2023. Most of the sites were near a high-water mark (HWM) either collected by the U.S. Geological Survey (USGS) and/or the FEMA MAT itself. Using these HWMs and the effective Flood Insurance Study, an annual exceedance probability was estimated near 11 of the 12 sites, see Figure 2 based on the nearest HWM. Based on the estimated annual exceedance probabilities, Hurricane Ian flood levels exceeded the base flood elevation (BFE) (or 100-year/1-percent-annual-chance flood) in all coastal areas analyzed and was below the base flood in most inland areas.

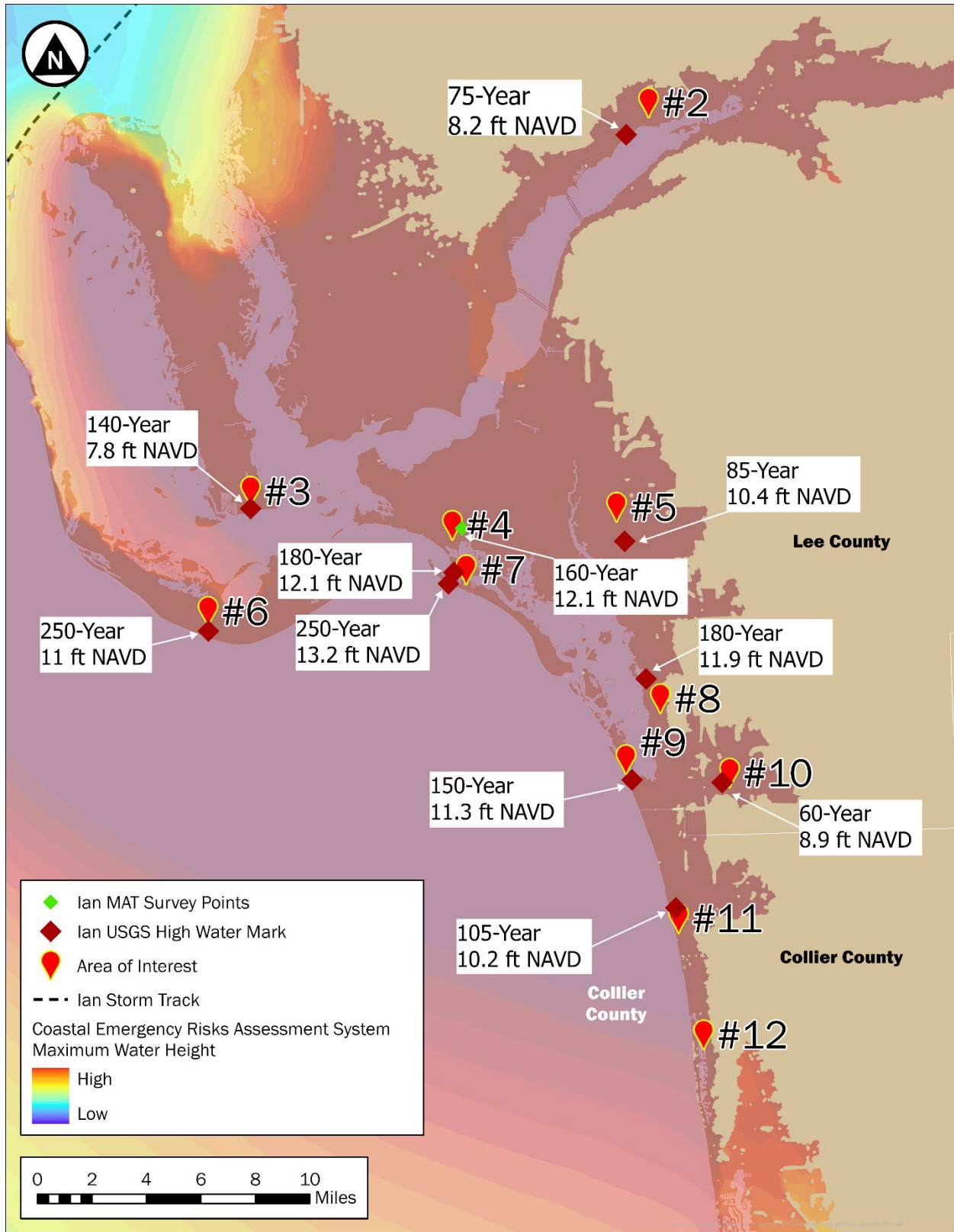


Figure 2: Estimated annual exceedance probability for Areas of Interest No. 2 through 12

The 12 Areas of Interest selected in DeSoto, Lee, and Collier Counties have various flood sources and the inundation depths within each varied, based on site conditions, especially storm surge levels. Table 3 provides a summary of the estimated flood depths for each of the 12 areas. These depths are primarily representative of the flood depth above the lowest floor of older *non-elevated buildings* within the areas studied.

Table 3: Estimated Flood Depths across Areas of Interest 1 through 12

Area of Interest	Estimated flood depth (feet) in at-grade buildings
1 – DeSoto County along Peace River	2–3
2 – Lee County along Caloosahatchee River	2–3
3 – Pine Island	1–2
4 – San Carlos Bay	7–8
5 – Tenmile Canal	3–4
6 – Sanibel Island	4–5
7 – Fort Myers Beach/Estero Island	8–9
8 – Estero Bay	5–6
9 – Bonita Beach	5–6
10 – Lee County along Imperial River	2–3
11 – Collier County – Vanderbilt	4–5
12 – Venetian Bay	2–3

Based on field observations, structural damage in these areas typically depended on whether or not the building experienced wave action or high-velocity flood loads. Debris-impact loads were also a contributing factor to structural damage. For the most part, unless buildings were subject to hydrodynamic loads or experienced scour and erosion damage to foundations, buildings did not typically have structural damage. Nevertheless, extensive damage was observed to non-structural building components and non-flood damage-resistant materials that were exposed to flooding. While *elevated buildings* were more flood-damage resilient than *non-elevated buildings*, finished enclosures with various elements that did not appear to comply with flood-damage-resistant material requirements and had functions beyond the only allowable uses of parking, building access, and storage below the lowest floor, were prevalent. These common issues reduced building and community resilience by generating avoidable flood damage, creating debris that caused the closing and blocking of countless roads, required cleanup and repairs, and unnecessarily tied up limited resources.

To reinforce field observations related to flood damage of single-family residential buildings and help recommend improvements for flood-resistant design and construction requirements, the MAT collected NFIP policy claims data along with county parcel data and analyzed building and contents claims. The policy data from the FEMA Flood

Insurance Directorate included claims status, *elevated* versus *non-elevated building* type, pre- versus post-FIRM construction, primary residence, claims payment, and building and contents coverage limits. Parcel data attributes included the year built and size of the house in square feet. The building size was used to help quantify a claim per square foot of each house as the average size of a single-family house has increased over time. For example, in some Areas of Interest, the average building claim reflected greater damage in newer larger construction, but when comparing the average building claim per square foot the newer construction claims were lower compared to older construction. Table 4 through Table 7 provide a summary of the NFIP claims in the representative areas. Table 4 provides a comparison of the average total, building, and contents claims across the 12 representative areas. Table 5 compares average total, building, and contents claim by decade. The summaries show a decrease by decade indicating newer construction had less insured flood damage claims, which is consistent with field observations. Table 6 compares average total, building, and contents claims by *elevated* vs *non-elevated building* type; the average *non-elevated building* claims were considerably higher as expected. Table 7 provides similar elevation by pre- versus post-FIRM construction; pre-FIRM damages were considerably higher as expected. Note, not every insurance policy analyzed had contents coverage, so the combined averages will not equal the total average claim.

Per 44 CFR 59.1 ELEVATED BUILDING

For insurance purposes, an *elevated building* is a non-basement building that has its lowest elevated floor raised above ground level by foundation walls, shear walls, posts, piers, pilings, or columns.

Table 4: Comparison of Hurricane Ian NFIP Claims across Areas of Interest 1 through 12

Area of Interest	Active Policies	Average Total Claim	Average Building Claim	Average Contents Claim
1 – DeSoto County along Peace River	16	\$115,660	\$109,428	\$12,463
2 – Lee County along Caloosahatchee River	67	\$171,796	\$148,058	\$34,574
3 – Pine Island	70	\$58,049	\$48,033	\$11,309
4 – San Carlos Bay	106	\$130,645	\$114,517	\$19,209
5 – Tenmile Canal	103	\$143,095	\$126,131	\$26,474
6 – Sanibel Island	100	\$82,646	\$72,517	\$11,380
7 – Fort Myers Beach/Estero Island	101	\$115,242	\$108,917	\$10,867
8 – Estero Bay	62	\$86,127	\$75,908	\$13,774
9 – Bonita Beach	56	\$85,186	\$79,007	\$8,873
10 – Lee County along Imperial River	235	\$84,856	\$73,349	\$17,244

Area of Interest	Active Policies	Average Total Claim	Average Building Claim	Average Contents Claim
11 – Collier County – Vanderbilt	246	\$160,367	\$132,914	\$32,784
12 – Venetian Bay	108	\$194,506	\$154,724	\$43,398
All	1,270	\$123,168	\$105,662	\$23,053

Table 5: Comparison of Hurricane Ian NFIP Claims across Representative Areas by Decade

Decade Built	Quantity	Average Total Claim	Average Building Claim	Average Contents Claim
Pre 1980	426	\$191,378	\$164,891	\$38,265
1980s	344	\$117,074	\$100,584	\$22,781
1990s	173	\$73,857	\$62,496	\$13,017
2000s	205	\$73,898	\$61,791	\$13,562
Post 2010	122	\$54,894	\$48,091	\$9,651
All	1,270	\$123,168	\$105,662	\$23,053

Table 6: Comparison of Hurricane Ian NFIP Claims across Representative Areas by Elevated versus Non-elevated Building Type

Type	Quantity	Average Total Claim	Average Building Claim	Average Contents Claim
Elevated	413	\$50,287	\$46,033	\$5,077
Non-elevated	857	\$158,291	\$134,398	\$33,133
All	1,270	\$123,168	\$105,662	\$23,053

Table 7: Comparison of Hurricane Ian NFIP Claims across Representative Areas by Pre- versus Post-Firm Construction

Type	Quantity	Average Total Claim	Average Building Claim	Average Contents Claim
Pre-FIRM	632	\$171,181	\$148,708	\$34,476
Post-FIRM	638	\$75,607	\$63,020	\$14,548
All	1,270	\$123,168	\$105,662	\$23,053

The remainder of this Appendix provides a brief description of the 12 Areas of Interest analyzed along with tables summarizing age of construction, building size, average building and contents coverage, average building and contents claims from Hurricane Ian, and other pertinent information.

With the amount of enclosure damage observed, it is important to keep in mind that NFIP coverage below the lowest floor of an *elevated building* is limited and does not cover finishes. Therefore, damage to enclosures is probably not fully represented in these statistics and damage in *elevated buildings* is likely higher. In addition, several claims reached the maximum NFIP coverage limit and/or the maximum coverage for their policy. Not every NFIP flood insurance policy holder carries full building coverage (\$250,000), nor do they carry full contents coverage (\$100,000); actually, most policy holders do not carry contents at all because it is not required. While the current NFIP maximum coverage for building and contents is \$250,000 and \$100,000, not every policy had full coverage. In general, older construction had less coverage and newer construction had full coverage. The average building and contents coverage reflects the average across the policies analyzed in the respective table,

Note, pictures of houses throughout this Appendix are intended to provide representative examples of the size and type of single-family construction within each Area of Interest; the representative houses do *not* imply they had a flood insurance policy or claim.

Area of Interest No. 1.

Area of Interest No. 1 is a predominantly residential neighborhood with approximately 75 single-family houses along the Peace River in DeSoto County. Development in this area started in the 1950s. Approximately 75% of the houses were built before 1980 and about 15% were built post-2000. Almost the entire area is within the Special Flood Hazard Area, Zone AE with a BFE of 10.8 feet North American Vertical Datum of 1988 (NAVD 88) or higher. See Figure 3 for a general map of the area.

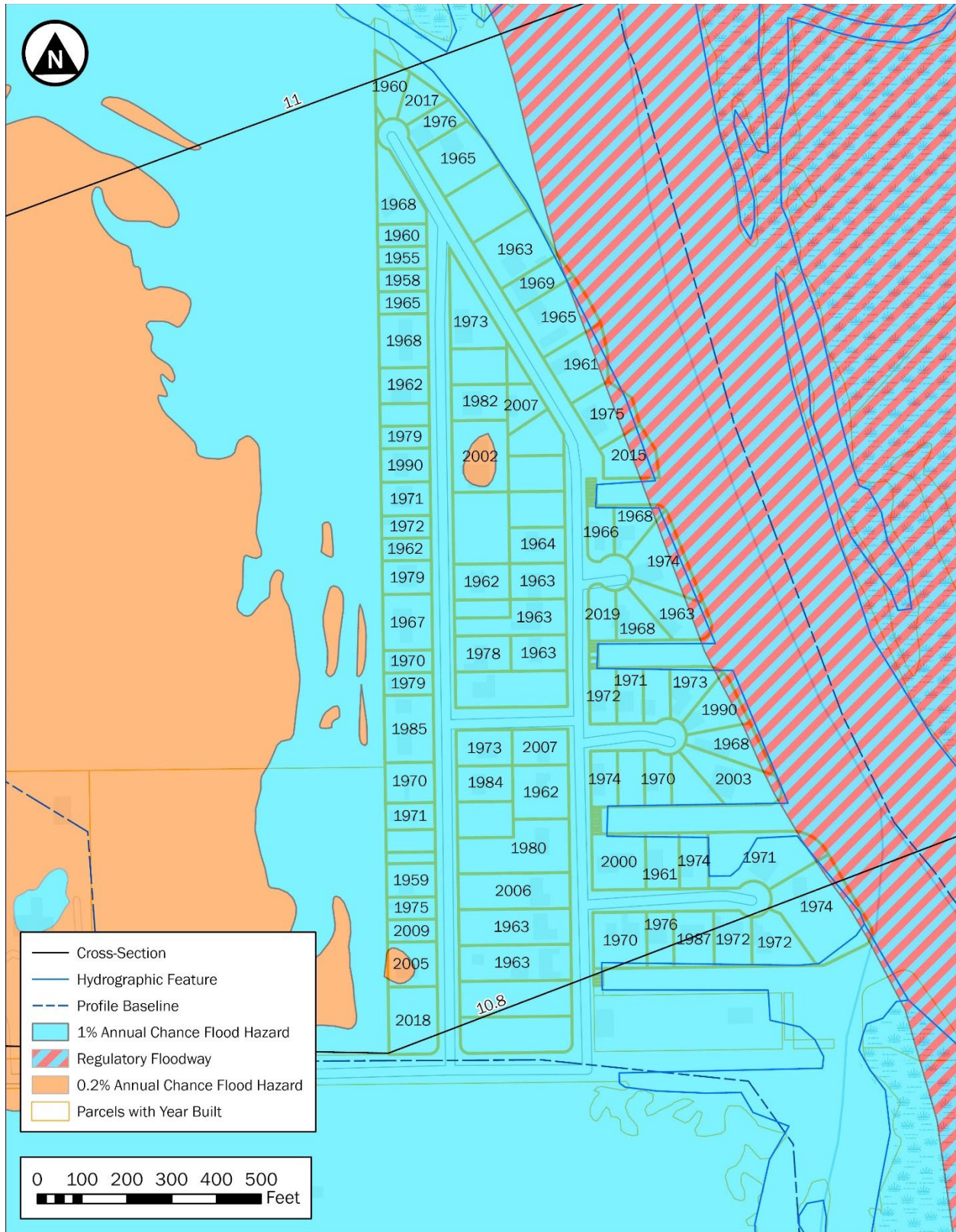


Figure 3: Map of Area of Interest No. 1

The houses in this area are predominantly non-elevated; in rare circumstances where the houses are elevated, areas below the lowest floor are enclosed (either partially or fully). Although no HWMs were identified by the MAT in the vicinity of this neighborhood, estimated flood levels were approximately 4 feet in older slab-on-grade houses based on interviews with homeowners during site visits. No major structural damage was observed; damage was predominantly related to interior walls and finishes, which had been or were being removed. Figure 4 provides examples of representative single-family houses within Area of Interest No. 1.

The 20% flood insurance take up rate (16 of 76 buildings with flood insurance) is not adequate to be considered truly representative, but this area was selected because it is consistent with observations seen within DeSoto, Highlands, Lake, Orange, Osceola, and other inland counties. The one *elevated building* claim in this area was built in 2003, is considerably larger than the average building size in the area (2,352 square feet versus 1,628 square feet) and had considerably less insured building damage compared to the other claims (less than \$10,000 compared to an average building claim of over \$115,000 for the other 15 insured properties in the area). Table 8 through Table 12 provide the number of houses built by decade, the number of insured buildings, and a summary of NFIP building and contents claims by decade as well as by building type (elevated vs non-elevated). The percentages in Table 8 are intended to help illustrate how similar the distribution of buildings built by decade is compared to the distribution of policies by decade.



Figure 4: Representative single-family houses in Area of Interest No. 1 from 1961 to 2019

Table 8: Number of Single-Family Residential Buildings by Decade Built and NFIP Insurance Policies within Area of Interest No. 1

Decade Built	Total Buildings	Percent of All Buildings	Average Size	Buildings w/ Policy	Percent of All Policies	Average Size
Pre 1980	57	75%	1,311	14	88%	1,637
1980s	5	7%	1,368	1	6%	1,500
1990s	2	3%	1,648	0	0%	-
2000s	8	11%	1,593	1	6%	2,352
Post 2010	4	5%	2,021	0	0%	-
All	76		1,390	16		1,673

The “Quantity Max NFIP Coverage” column in Table 9 through Table 12 indicates the number of claims that reached the maximum NFIP coverage (\$250,000 for building and \$100,000 for contents). The “Quantity Max Building Coverage” and “Quantity Max Contents Coverage” indicate the number of claims that reached the maximum coverage under the policy. For example, if a homeowner opted for \$200,000 in building coverage and the building claim payment was \$200,000, then the claim reached the “Max Building Coverage” but did not meet “Max NFIP Coverage.” The same column headings are used throughout this Appendix for all 12 Areas of Interest.

Table 9: Hurricane Ian NFIP Building Claims within Area of Interest No. 1 by Decade Built

Decade Built	Active Policies	Average Total Claim	Average Building Claim	Average Size	Average Building Claim per square foot	Average Building Coverage	Quantity Max NFIP Coverage	Quantity Max Building Coverage
Pre 1980	14	\$126,432	\$119,311	1,637	\$73.22	\$238,346	0	4
1980s	1	\$70,836	\$70,836	1,500	\$47.22	\$246,073	0	0
1990s	0	\$-	\$-	-	\$-	\$296,833	0	0
2000s	1	\$9,671	\$9,671	2,352	\$4.11	\$242,397	0	0
Post 2010	0	\$-	\$-	-	\$-	\$250,000	0	0
All	16	\$115,660	\$109,428	1,673	\$67.28	\$245,320	0	4

Table 10: Hurricane Ian NFIP Contents Claims within Area of Interest No. 1 by Decade Built

Decade Built	Active Policies	Average Total Claim	Average Contents Claim	Average Size	Average Contents Claim per square foot	Average Contents Coverage	Quantity Max NFIP Coverage	Quantity Max Contents Coverage
Pre 1980	7	\$154,083	\$14,243	1,851	\$8.70	\$31,086	0	4
1980s	0	\$-	\$-	-	\$-	\$-	0	0
1990s	0	\$-	\$-	-	\$-	\$-	0	0
2000s	1	\$9,671	\$0	2,352	\$0.00	\$100,000	0	0
Post 2010	0	\$-	\$-	-	\$-	\$-	0	0
All	8	\$136,031	\$12,463	1,914	\$7.61	\$39,700	0	4

Table 11: Hurricane Ian NFIP Building Claims within Area of Interest No. 1 by Elevated versus Non-elevated Building Type

Building Type	Active Policies	Average Total Claim	Average Building Claim	Average Size	Average Building Claim per square foot	Average Building Coverage	Quantity Max NFIP Coverage	Quantity Max Building Coverage
Non-elevated	15	\$122,726	\$116,079	1,628	\$71.49	\$167,387	0	4
Elevated	1	\$9,671	\$9,671	2,352	\$4.11	\$250,000	0	0
All	16	\$115,660	\$109,428	1,673	\$67.28	\$245,320	0	4

Table 12: Hurricane Ian NFIP Contents Claims within Area of Interest No. 1 by Elevated versus Non-elevated Building Type

Building Type	Active Policies	Average Total Claim	Average Contents Claim	Average Size	Average Contents Claim per square foot	Average Contents Coverage	Quantity Max NFIP Coverage	Quantity Max Contents Coverage
Non-elevated	7	\$154,083	\$14,243	1,851	\$8.70	\$31,086	0	4
Elevated	1	\$9,671	\$0	2,352	\$0.00	\$100,000	0	0
All	8	\$136,031	\$12,463	1,914	\$7.61	\$39,700	0	4

Area of Interest No. 2.

Area of Interest No. 2 is approximately 15 miles upstream from the mouth of the Caloosahatchee River in Lee County. The area analyzed has approximately 120 single-family houses, with the first house built in 1957. Approximately 75% of the houses were built before 1980 and less than 10% were built post-2000. The entire area is within the Special Flood Hazard Area, with a majority of the area being Zone AE with a BFE of 7 to 9 feet NAVD 88, the southernmost part of the area is Zone VE with a BFE of 10 feet NAVD 88. Multiple USGS HWMs were measured in this area at 8 feet North American Vertical Datum of 1988 (NAVD 88). See Figure 5 for a general map of the area.

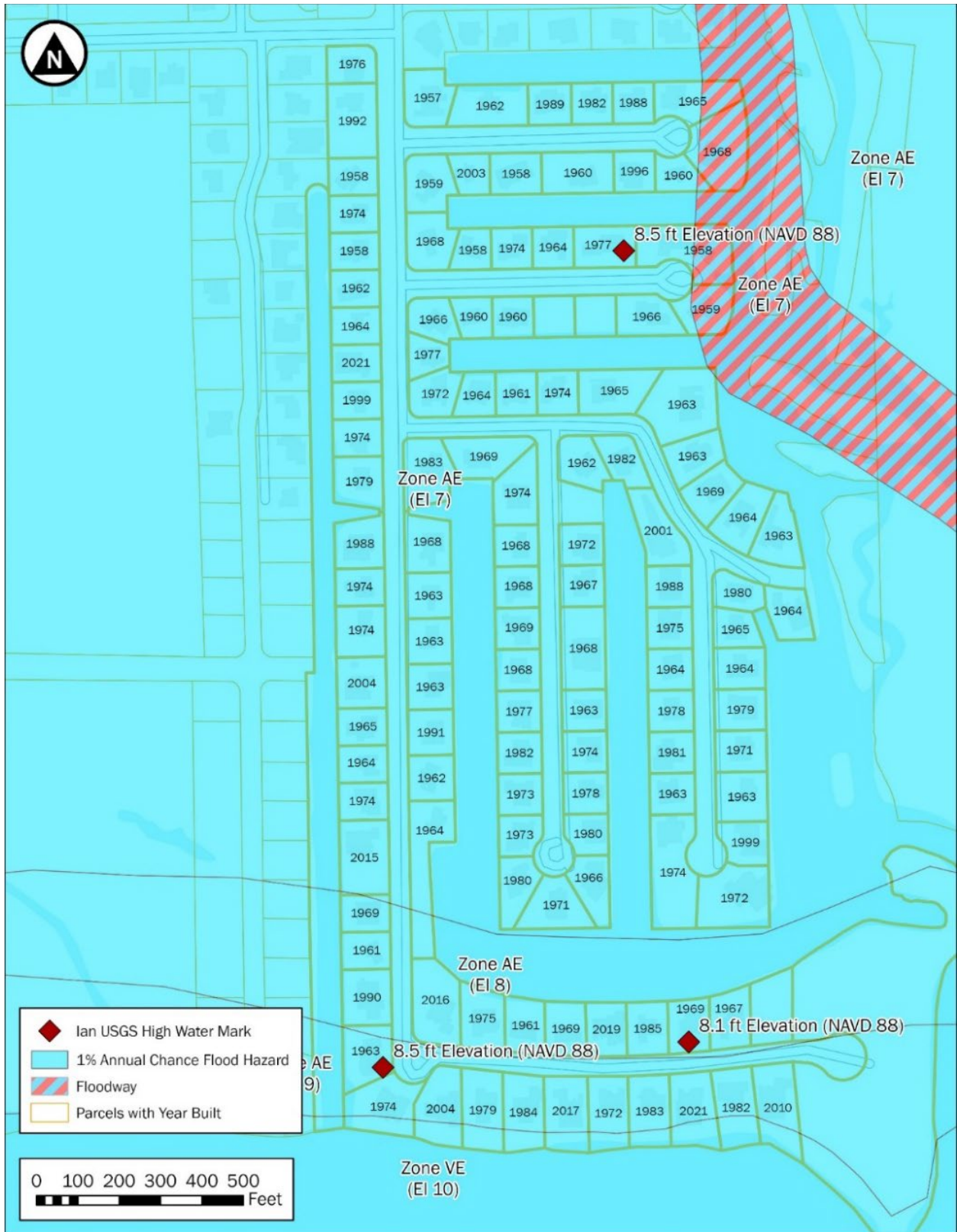


Figure 5: Map of Area of Interest No. 2

Most houses in this area are built on fill, with newer post-FIRM construction built to the required elevation at the time of construction. The elevation of older slab-on-grade houses is approximately 5 feet NAVD 88 based on recordings from surveyors embedded with the MAT; estimated flood depths in older houses were approximately 3 feet. No major structural damage was observed, damage was predominantly related to interior walls and finishes, which had been or were being removed. Figure 6 provides examples of representative single-family houses within Area of Interest No. 2.

The greater than 50% flood insurance take up rate (67 of 123 buildings with flood insurance) makes this area a good candidate for using claims to quantify flood damage. Although the MAT observed a very small percentage of *elevated buildings* within this Area of Interest (likely less than 5%), the houses with active insurance policies are all *non-elevated buildings*. The one post-2010 policy had a considerably lower average building claim compared to other houses (\$15,933 compared to \$148,058 average across the 67 buildings). However, the post-2010 average contents claim of over \$65,000 is higher than any other decade and higher than the \$34,574 across all 67 buildings. One potential explanation for this finding is that the property had full (\$100,000) contents coverage and the average contents claim for houses with full contents coverage in this area is over \$56,000. In addition, most of the living area within this house appears to be elevated on a stem wall foundation so the claim is likely associated with contents in the garage (not on the stem wall foundation) and other damage throughout the lowest floor. No noticeable difference was observed in the field or in the policy data for the few buildings in the floodway.

Table 13 through Table 17 provide the number of houses built by decade, the number of insured buildings, and a summary of NFIP building and contents claims by decade as well as by building type (elevated vs non-elevated). The percentages in

Table 13 are intended to help illustrate how similar the distribution of buildings built by decade is compared to the distribution of policies by decade.



Figure 6: Representative single-family houses in Area of Interest No. 2 from the 1960s to 2020

Table 13: Number of Single-Family Residential Buildings by Decade Built and NFIP Insurance Policies within Area of Interest No. 2

Decade Built	Total Buildings	Percent of All Buildings	Average Size	Buildings w/ Policy	Percent of All Policies	Average Size
Pre 1980	90	73%	1,765	50	75%	1,712
1980s	16	13%	1,981	9	13%	1,883
1990s	6	5%	2,098	4	6%	2,266
2000s	4	3%	2,731	3	4%	2,986
Post 2010	7	6%	2,591	1	1%	2,433
All	123		1,887	67		1,836

Table 14: Hurricane Ian NFIP Building Claims within Area of Interest No. 2 by Decade Built

Decade Built	Active Policies	Average Total Claim	Average Building Claim	Average Size	Average Building Claim per square foot	Average Building Coverage	Quantity Max NFIP Coverage	Quantity Max Building Coverage
Pre 1980	50	\$169,914	\$150,212	1,712	\$88.49	\$238,346	5	3
1980s	9	\$202,608	\$165,269	1,883	\$88.93	\$246,073	0	0
1990s	4	\$176,104	\$132,380	2,266	\$61.05	\$296,833	0	0
2000s	3	\$134,979	\$125,477	2,986	\$43.06	\$242,397	0	0
Post 2010	1	\$81,786	\$15,933	2,433	\$6.55	\$250,000	0	0
All	67	\$171,796	\$148,058	1,836	\$83.65	\$245,320	5	3

Table 15: Hurricane Ian NFIP Contents Claims within Area of Interest No. 2 by Decade Built

Decade Built	Active Policies	Average Total Claim	Average Contents Claim	Average Size	Average Contents Claim per square foot	Average Contents Coverage	Quantity Max NFIP Coverage	Quantity Max Contents Coverage
Pre 1980	31	\$189,932	\$31,777	1,792	\$17.08	\$50,065	1	13
1980s	7	\$211,576	\$48,008	1,929	\$26.11	\$82,143	0	1
1990s	4	\$176,104	\$43,724	2,266	\$19.87	\$71,475	1	1
2000s	3	\$134,979	\$9,502	2,986	\$3.09	\$40,333	0	0
Post 2010	1	\$81,786	\$65,853	2,433	\$27.07	\$100,000	0	0
All	46	\$186,088	\$34,574	1,946	\$18.00	\$57,259	2	15

Table 16: Hurricane Ian NFIP Building Claims within Area of Interest No. 2 by Elevated versus Non-elevated Building Type

Building Type	Active Policies	Average Total Claim	Average Building Claim	Average Size	Average Building Claim per square foot	Average Building Coverage	Quantity Max NFIP Coverage	Quantity Max Building Coverage
Non-elevated	67	\$171,796	\$148,058	1,836	\$83.65	\$232,296	5	3
Elevated	0	\$-	\$-	-	\$-	\$-	0	0
All	67	\$171,796	\$148,058	1,836	\$83.65	\$245,320	5	3

Table 17: Hurricane Ian NFIP Contents Claims within Area of Interest No. 2 by Elevated versus Non-elevated Building Type

Building Type	Active Policies	Average Total Claim	Average Contents Claim	Average Size	Average Contents Claim per square foot	Average Contents Coverage	Quantity Max NFIP Coverage	Quantity Max Contents Coverage
Non-elevated	46	\$186,088	\$34,574	1,946	\$18.00	\$57,259	2	15
Elevated	0	\$-	\$-	-	\$-	\$-	0	0
All	46	\$186,088	\$34,574	1,946	\$18.00	\$57,259	2	15

Area of Interest No. 3.

Area of Interest No. 3 consists of approximately 140 single-family houses and is located on the southern portion of Pine Island in Lee County. Approximately 75% of the houses were built before 1980 and less than 10% were built post-2000. Development in this area started in the 1970s. Approximately 50% of the houses were built before 1990 and about 30% were built post-2000. The entire area is within the Special Flood Hazard Area, with a majority of the area being Zone AE with a BFE of 7 feet NAVD 88; the southern part of the area is Zone VE with a BFE of 10. A USGS HWM was measured in this area at approximately 8 feet NAVD 88. See Figure 7 for a general map of the area.

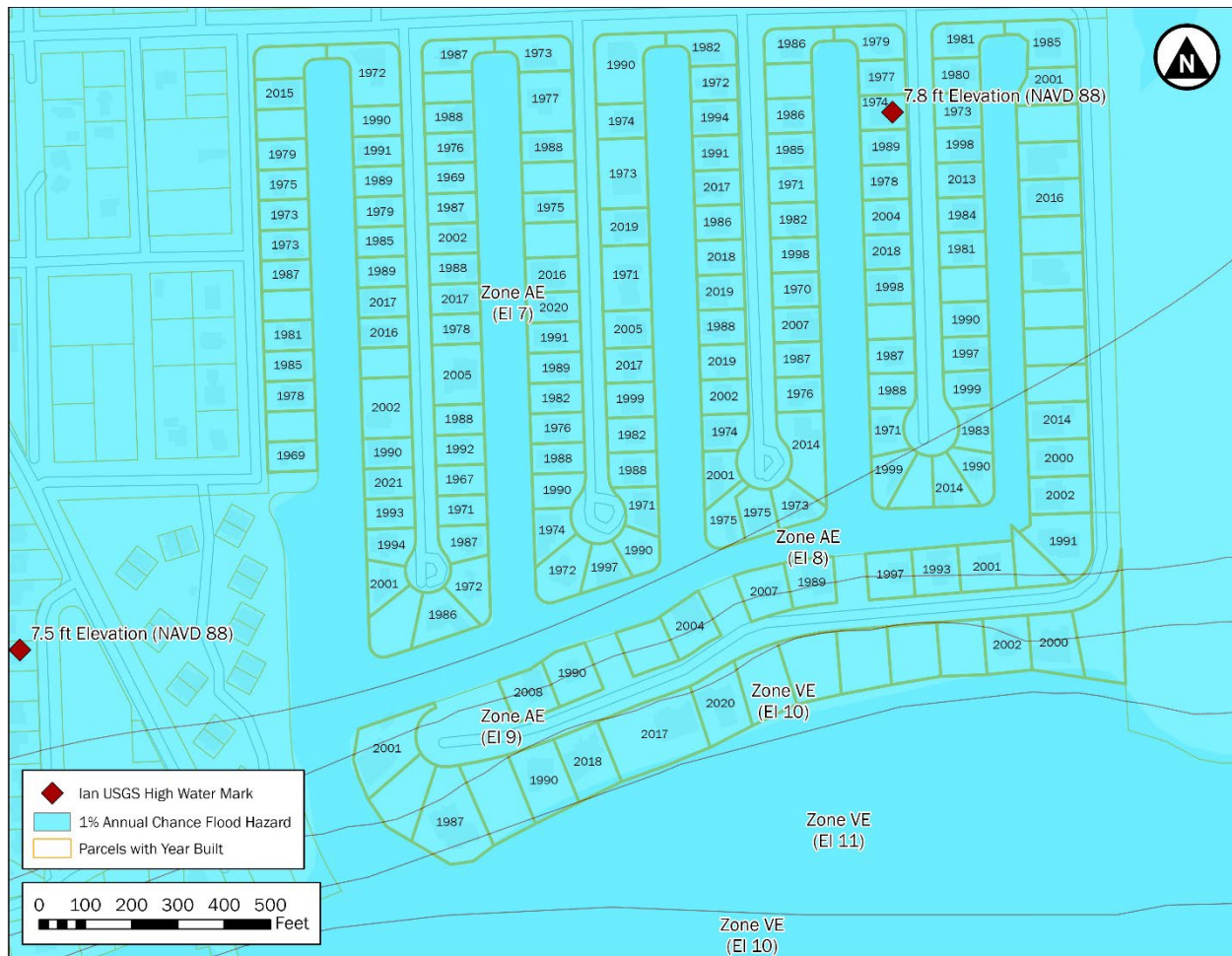


Figure 7: Map of Area of Interest No. 3

The houses in this area are a relatively even mixture of *elevated* and *non-elevated buildings*, with a slightly higher percentage of *non-elevated buildings*. Areas below the lowest floor are enclosed (either partially or fully) in two-thirds to three-quarters of the *elevated buildings*. No major structural damage was observed; damage was predominantly related to interior walls and finishes, which had been or were being removed. During site visits, homeowners reported 3 feet of water in non-elevated houses as well as in enclosures, including garages below the lowest floor of elevated houses. Relative to the other 11 Areas of Interest, this area is closest to the hurricane track and houses had noticeable wind damage as well. Figure 8 provides examples of representative single-family houses within Area of Interest No. 3.



Figure 8: Representative single-family houses in Area of Interest No. 3 from 1971 to 2018

The 48% flood insurance take up rate (70 of 145 buildings with flood insurance), a mixture of older and new construction (50% before and after 1990) along with a relatively consistent age of construction distribution between total and insured properties, and an almost even mixture of *elevated* and *non-elevated buildings* (33 of the 70 insured buildings are elevated) makes this area a good candidate for using claims to compare flood damage, particularly to compare newer versus older construction. Based on field observations, older houses were considerably more damaged than newer houses and the claims data are consistent with that finding, with the average pre-1980 building claim being almost 4.5 times the average post-1980 building claim (\$116,595 versus about \$26,050). One noticeable trend observed in the field was the number of *non-elevated buildings* in newer, most recent construction. The NFIP policy data substantiated this trend as 5 of 6 (83%) post-2010 buildings are rated as non-elevated; only 6 of 29 (21%) houses built from 1990 to 2010 are rated as non-elevated. This construction practice likely explains the increase in the average building claim from the 1990s and 2000s, \$9,106 and \$5,979, to \$54,726 in post-2010 construction. Overall, the building claims are consistent with observations made in the field as average damages for *non-elevated buildings* are more than six times greater than *elevated buildings* (\$79,980 vs \$12,314). Table 18 through Table 22 provide the number of houses built by decade, the number of insured buildings, and a summary of NFIP building and contents claims by decade as well as by building

type (elevated vs non-elevated). The percentages in Table 18 are intended to help illustrate how similar the distribution of buildings built by decade is compared to the distribution of policies by decade.

Table 18: Number of Single-Family Residential Buildings by Decade Built and NFIP Insurance Policies within Area of Interest No. 3

Decade Built	Total Buildings	Percent of All Buildings	Average Size	Buildings w/ Policy	Percent of All Policies	Average Size
Pre 1980	38	26%	1,449	17	24%	1,434
1980s	38	26%	1,577	18	26%	1,602
1990s	27	19%	1,934	19	27%	1,885
2000s	19	13%	2,306	10	14%	2,006
Post 2010	23	16%	2,140	6	9%	1,854
All	145		1,795	70		1,717

Table 19: Hurricane Ian NFIP Building Claims within Area of Interest No. 3 by Decade Built

Decade Built	Active Policies	Average Total Claim	Average Building Claim	Average Size	Average Building Claim per square foot	Average Building Coverage	Quantity Max NFIP Coverage	Quantity Max Building Coverage
Pre 1980	17	\$140,675	\$116,595	1,434	\$84.56	\$238,346	0	0
1980s	18	\$53,133	\$45,501	1,602	\$30.35	\$246,073	0	0
1990s	19	\$10,674	\$9,106	1,885	\$5.21	\$296,833	0	0
2000s	10	\$6,079	\$5,979	2,006	\$3.01	\$242,397	0	0
Post 2010	6	\$75,326	\$54,726	1,854	\$27.81	\$250,000	0	0
All	70	\$58,049	\$48,033	1,717	\$32.57	\$245,320	0	0

Table 20: Hurricane Ian NFIP Contents Claims within Area of Interest No. 3 by Decade Built

Decade Built	Active Policies	Average Total Claim	Average Contents Claim	Average Size	Average Contents Claim per square foot	Average Contents Coverage	Quantity Max NFIP Coverage	Quantity Max Contents Coverage
Pre 1980	15	\$147,852	\$27,291	1,468	\$17.47	\$48,720	0	4
1980s	15	\$56,060	\$9,158	1,569	\$6.41	\$57,640	0	2
1990s	17	\$11,651	\$1,753	1,891	\$1.07	\$62,088	0	0
2000s	10	\$6,079	\$100	2,006	\$0.04	\$79,990	0	0
Post 2010	5	\$89,633	\$24,720	1,869	\$12.18	\$95,800	0	0
All	62	\$60,737	\$11,309	1,727	\$7.06	\$63,384	0	6

Table 21: Hurricane Ian NFIP Building Claims within Area of Interest No. 3 by Elevated versus Non-elevated Building Type

Building Type	Active Policies	Average Total Claim	Average Building Claim	Average Size	Average Building Claim per square foot	Average Building Coverage	Quantity Max NFIP Coverage	Quantity Max Building Coverage
Non-elevated	37	\$98,167	\$79,890	1,621	\$53.83	\$238,505	0	0
Elevated	33	\$13,068	\$12,314	1,826	\$8.73	\$243,636	0	0
All	70	\$58,049	\$48,033	1,717	\$32.57	\$245,320	0	0

Table 22: Hurricane Ian NFIP Contents Claims within Area of Interest No. 3 by Elevated versus Non-elevated Building Type

Building Type	Active Policies	Average Total Claim	Average Contents Claim	Average Size	Average Contents Claim per square foot	Average Contents Coverage	Quantity Max NFIP Coverage	Quantity Max Contents Coverage
Non-elevated	32	\$104,493	\$21,132	1,616	\$12.99	\$60,394	0	5
Elevated	30	\$14,064	\$830	1,846	\$0.72	\$66,573	0	1
All	62	\$60,737	\$11,309	1,727	\$7.06	\$63,384	0	6

Area of Interest No. 4.

This Area of Interest currently has approximately 170 single-family houses with development starting in 1959 and continuing today with several houses under construction. The area is located along San Carlos Bay just north of Estero Island in Lee County and was largely developed from east to west with the western most street still under development. The entire area is within the Special Flood Hazard Area, Zone AE with a BFE of 12 feet NAVD 88. Note, a new effective FIRM was released for this area in November 2022. The primary difference between the 2008 and 2022 FIRMs is that the 2022 FIRM designates areas of the neighborhood within the Limit of Moderate Wave Action (Coastal A Zone). Two USGS HWMs were measured in this area at 12 feet NAVD 88. See Figure 9 for a general map of the area.

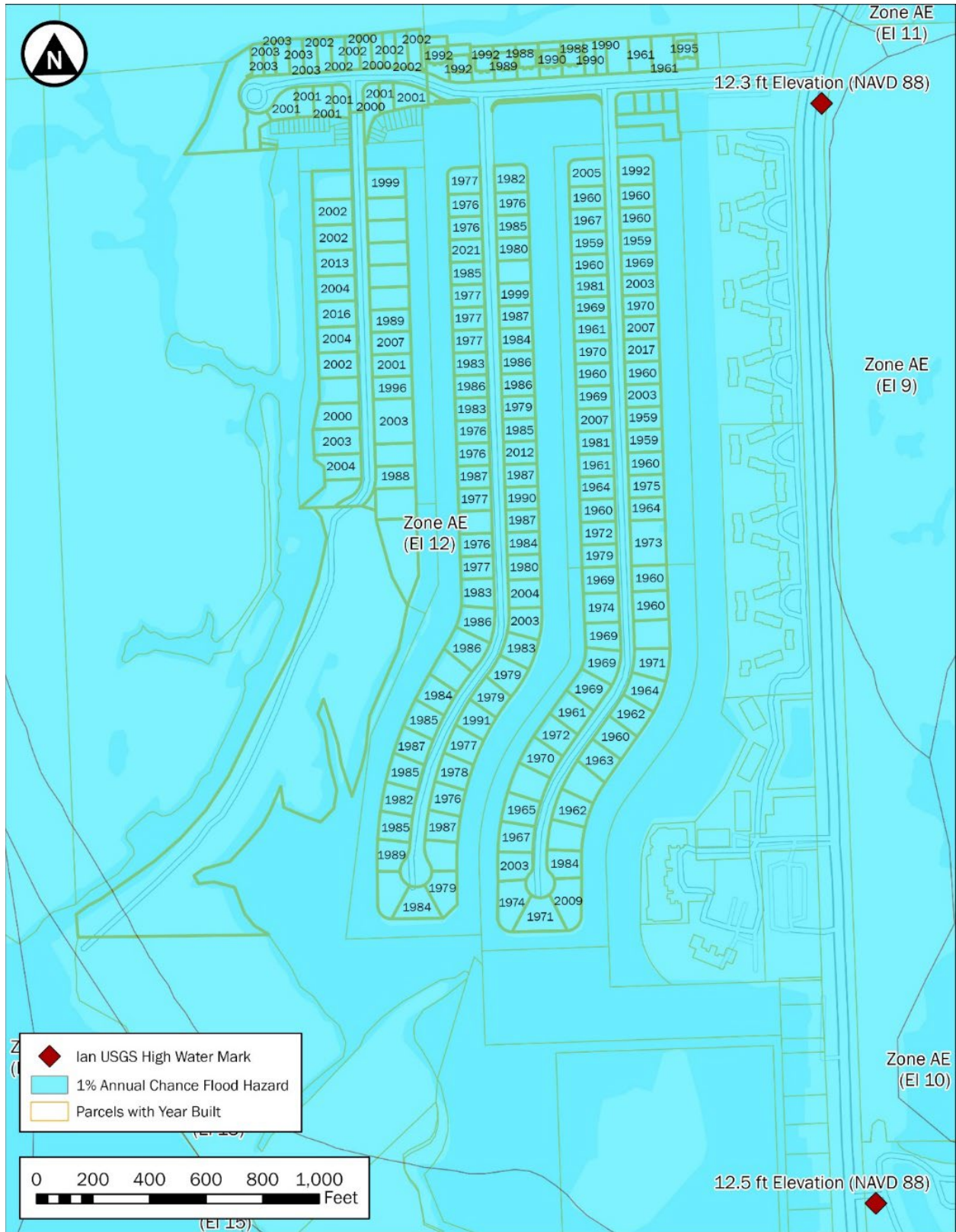


Figure 9: Map of Area of Interest No. 4

The MAT studied this area further because construction practices are considerably different along one street compared to the others. Along the eastern most street, the first street developed in the area, most houses are slab-on-grade, whereas on each of the other streets, houses are predominantly elevated on foundation walls, posts, piers, pilings, or columns. Figure 10 provides examples of representative single-family houses within Area of Interest No. 4.



Figure 10: Representative single-family houses in Area of Interest No. 4 from the 1960s to present

Conditions in this area during Hurricane Ian included inundation from surge with some evidence of velocity and wave action, including boats and other flood-borne debris impacting buildings. Ground elevations generally ranged from 4 to 6 feet NAVD 88, and homeowners reported flood depths of 6 to 8 feet of water in their ground floors/enclosures. As a note, most *elevated buildings* throughout the area had enclosures. In addition, more than 60% of the houses (106 of 171) had an active flood insurance policy, and the distribution of the age of construction for these insured houses was relatively consistent with the entire area. The MAT Survey Team was able to collect some representative elevations including garage, lowest floor, and mechanical equipment along the eastern most street; non-elevated houses were estimated at 6 feet NAVD 88, and the lowest floor elevations in *elevated buildings* were 11 feet NAVD

88 or higher. Building types were noticeably different along the three primary streets in this area, with the eastern most street having mostly slab-on-grade/*non-elevated buildings*; the center street having buildings elevated on foundation walls, posts, piers, pilings, or columns; and the western most street with newest construction having a relatively even mixture of *elevated* and *non-elevated buildings*. The primary difference between the eastern most street and the center street is one has 6% *elevated buildings* and the other has 74%. Table 23 and Table 24 quantify the *non-elevated* and *elevated buildings* by street and decade built. The building type of insured buildings is consistent with building type observations in the field with 94% of the insured buildings on the eastern street being *non-elevated buildings*(33 of 35), 26% along the center street (10 of 38), and 30% along the eastern street (4 of 13).

Table 23: Number of Non-elevated Buildings by Street in Area of Interest No. 4

Street	Non-Elevated Buildings	Pre 1980	1980s	1990s	2000s	Post 2010
East	33	26	3	1	3	0
Center	10	3	6	0	0	1
West	4	0	0	0	2	2
All	47	29	9	1	5	3

Table 24: Number of Elevated Buildings by Street in Area of Interest No. 4

Street	Elevated Buildings	Pre 1980	1980s	1990s	2000s	Post 2010
East	2	0	0	0	2	0
Center	28	8	18	0	2	0
West	9	0	1	1	7	0
All	39	8	19	1	11	0

The MAT visited this area in January and despite a considerable amount of immediate repairs and debris removal having been completed, the team observed a considerable amount of damage along the eastern most street primarily because of the predominant building type—a high percentage of *non-elevated buildings*. The policy data supports this observation as the average building claim along the eastern most street was more than twice the average when compared to the other two streets (\$200,069 versus approximately \$87,118). The center street with more *elevated buildings* had an average building claim less than half the eastern most street; it had less than half as much construction and demolition debris as well. Table 25 provides a comparison of the average total claim, building claim, and building size per street.

Table 25: Hurricane Ian NFIP Building Claims within Area of Interest No. 4 by Street

Street	Active Policies	Average Total Claim	Average Building Claim	Average Size	Average Claim per square foot	Quantity Max NFIP Coverage	Quantity Max Building Coverage
East	35	\$228,866	\$200,069	2,329	\$100.69	18	4
Center	38	\$99,272	\$87,830	2,303	\$40.50	1	0
West	13	\$103,128	\$85,036	3,444	\$25.55	2	0
All	86	\$152,597	\$133,086	2,486	\$62.74	21	4

Because flood insurance coverage is fairly limited below the lowest floor of an *elevated building*, the claims data do not reflect the full extent of damage. To further attempt to quantify and compare flood damage, the MAT requested debris removal data from Lee County. The County provided the location and type of each debris load removed throughout unincorporated Lee County; however, the volume for each load was not readily available. The eastern and center street in this Area of Interest have approximately the same number of buildings (58 along eastern street and 56 along center), so the MAT compared the number of construction and demolition (C&D) loads removed by the County along each street. More than twice as many C&D debris loads, 282 vs 125, were removed along the eastern street compared to the center street in this Area of Interest. The amount of debris is consistent with observations in the field and building type (elevated vs non-elevated) made a significant difference in building performance. While *elevated building* construction practices were effective at reducing damage, damage was still associated with them, particularly in enclosures below the lowest floor where a lack of flood damage-resistant materials was prevalent. See Figure 11 for a map of C&D debris loads in Area of Interest No. 4.

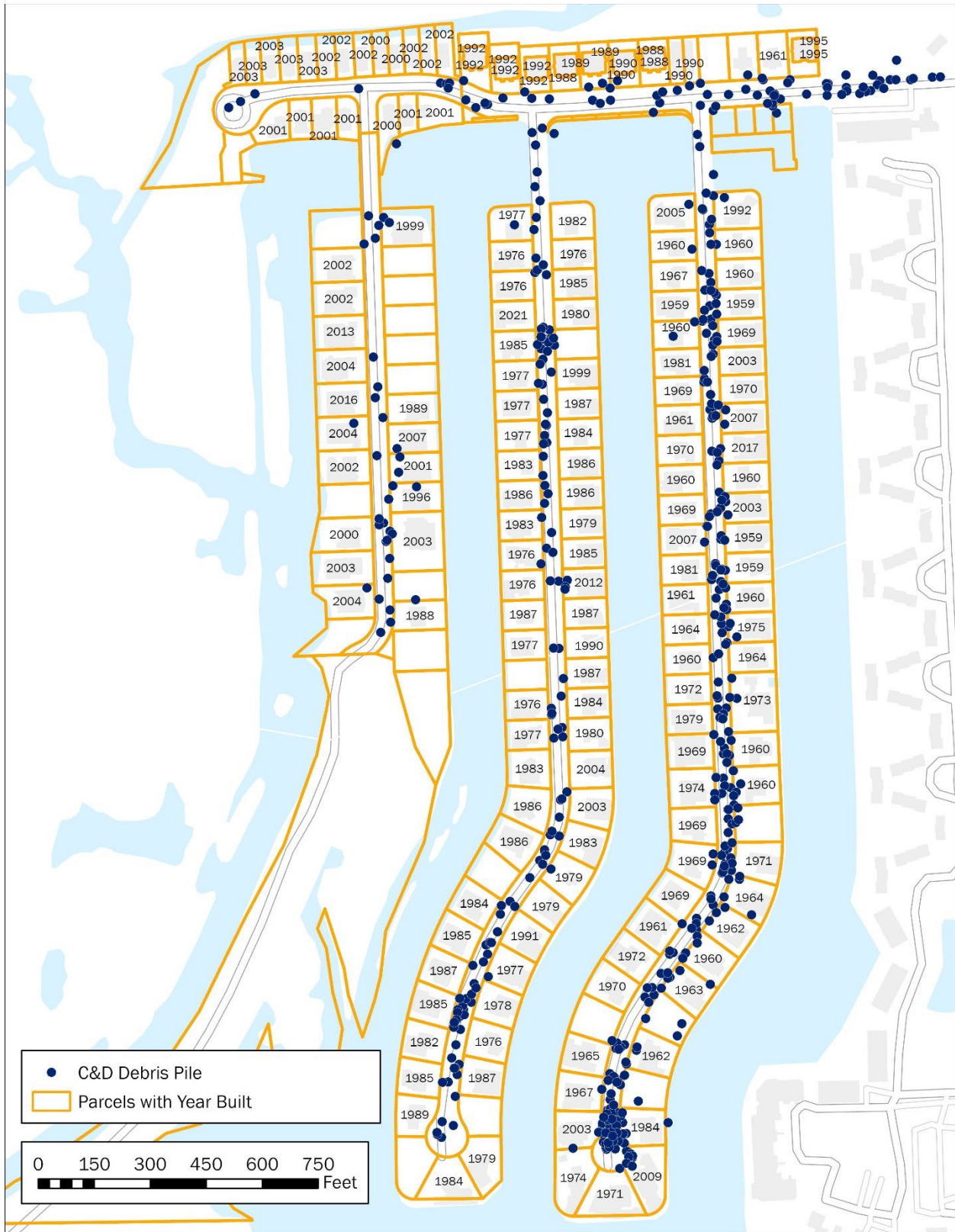


Figure 11: Map of C&D debris loads in Area of Interest No. 4

Flood insurance claims data across the entire Area of Interest indicate differences in damage based on year built and show a significant difference in damage based on *elevated vs non-elevated building* with the average building claim for a *non-elevated building* being more than triple that of an *elevated building* (\$179,150 versus \$54,584). The tables also illustrate an increase in average building size over time, which is expected based on current construction practices. The three post-2010 houses have a considerably higher average building claim compared to most post-1980 construction (\$146,847 versus approximately \$72,470). All three of these are *non-elevated buildings*, which likely explains the increase (compared to the 30 insured buildings constructed in the 2000s, when 22, or 73%, were *elevated buildings*). Table 26 through Table 30 provide the number of houses built by decade, the number of insured buildings, and a summary of NFIP building and contents claims by decade as well as by building type (elevated vs non-elevated). The percentages in Table 26 are intended to help illustrate how similar the distribution of buildings built by decade is compared to the distribution of policies by decade.

Table 26: Number of Buildings and Insurance Policies along with Average Building Size in Area of Interest No. 4

Decade Built	Total Buildings		Percent of All Buildings		Average Size	
	Count	Percent	Count	Percent	Count	Percent
Pre 1980	67	39%	2,047	37	35%	2,040
1980s	41	24%	2,216	30	28%	2,235
1990s	18	11%	2,232	6	6%	2,038
2000s	40	23%	2,877	30	28%	2,914
Post 2010	5	3%	2,768	3	3%	3,031
All	171		2,322	106		2,371

Table 27: Hurricane Ian NFIP Building Claims within Area of Interest No. 4 by Decade Built

Decade Built	Active Policies	Average Total Claim	Average Building Claim	Average Size	Average Building Claim per square foot	Average Building Coverage	Quantity Max NFIP Coverage	Quantity Max Building Coverage
Pre 1980	37	\$213,346	\$186,897	2,040	\$97.71	\$238,346	14	3
1980s	30	\$86,425	\$77,029	2,235	\$36.59	\$246,073	3	0
1990s	6	\$75,165	\$71,330	2,038	\$32.28	\$296,833	1	0
2000s	30	\$79,713	\$68,141	2,914	\$23.90	\$242,397	3	1
Post 2010	3	\$173,149	\$146,847	3,031	\$47.17	\$250,000	0	0
All	106	\$130,645	\$114,517	2,371	\$54.39	\$245,320	21	4

Table 28: Hurricane Ian NFIP Contents Claims within Area of Interest No. 4 by Decade Built

Decade Built	Active Policies	Average Total Claim	Average Contents Claim	Average Size	Average Contents Claim per square foot	Average Contents Coverage	Quantity Max NFIP Coverage	Quantity Max Contents Coverage
Pre 1980	30	\$215,454	\$32,621	2,095	\$15.95	\$63,163	2	14
1980s	24	\$77,711	\$11,745	2,282	\$6.34	\$83,392	1	1
1990s	4	\$90,111	\$5,752	2,168	\$2.50	\$89,000	0	0
2000s	29	\$81,135	\$11,971	2,959	\$3.47	\$95,169	1	0
Post 2010	2	\$172,759	\$39,453	2,972	\$12.97	\$100,000	0	0
All	89	\$127,950	\$19,209	2,450	\$8.62	\$81,036	4	15

Table 29: Hurricane Ian NFIP Building Claims within Area of Interest No. 4 by Elevated versus Non-elevated Building Type

Building Type	Active Policies	Average Total Claim	Average Building Claim	Average Size	Average Building Claim per square foot	Average Building Coverage	Quantity Max NFIP Coverage	Quantity Max Building Coverage
Non-elevated	51	\$205,505	\$179,150	2,281	\$86.05	\$241,545	21	3
Elevated	55	\$61,230	\$54,584	2,454	\$25.04	\$239,729	0	1
All	106	\$130,645	\$114,517	2,371	\$54.39	\$245,320	21	4

Table 30: Hurricane Ian NFIP Contents Claims within Area of Interest No. 4 by Elevated versus Non-elevated Building Type

Building Type	Active Policies	Average Total Claim	Average Contents Claim	Average Size	Average Contents Claim per square foot	Average Contents Coverage	Quantity Max NFIP Coverage	Quantity Max Contents Coverage
Non-elevated	40	\$209,144	\$33,603	2,365	\$14.14	\$70,078	3	14
Elevated	49	\$61,670	\$7,459	2,520	\$4.12	\$89,982	1	1
All	89	\$127,950	\$19,209	2,450	\$8.62	\$81,036	4	15

Area of Interest No. 5.

Area of Interest No. 5 is a residential subdivision with approximately 150 single-family houses along the Tenmile Canal in Lee County. Development in this area started in the 1980s with approximately 70% of the houses built in that first decade and less than 10% built post-2000. The entire area is within the Special Flood Hazard Area, Zone AE with a BFE of 10 feet NAVD 88, which is the same elevation recorded by the USGS at a HWM immediately southeast of this subdivision. See Figure 12 for a general map of the area.

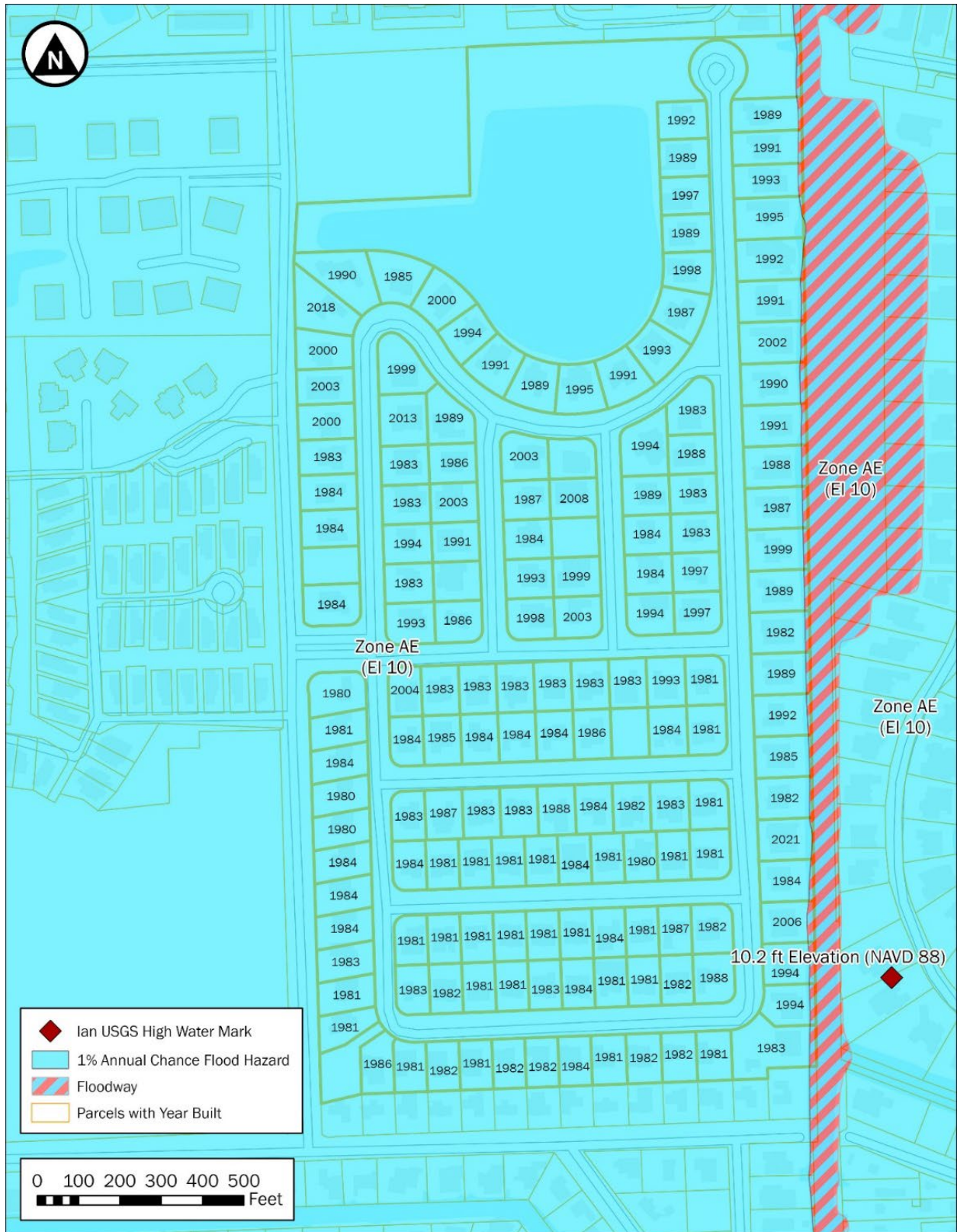


Figure 12: Map of Area of Interest No. 5

Most houses in this area are built on fill, in some cases 3 or more feet of fill, with newer post-FIRM construction built to the required elevation at the time of construction. Approximately 10% of the houses are *elevated buildings* with lowest floors at or above the BFE. Estimated flood levels were approximately 4 feet in older slab-on-grade houses based on interviews with homeowners during site visits. Some reported more than 5 feet of water in their houses. Figure 13 provides examples of representative single-family houses within Area of Interest No. 5.



Figure 13: Representative single-family houses in Area of Interest No. 5 from the 1980s to present

Non-elevated buildings had extensive interior damage, whereas damage to *elevated buildings* varied based on the amount elevated and the use flood damage-resistant materials in enclosures. Building performance in this subdivision was generally as expected with newer *elevated buildings* having considerably less damage than older *non-elevated buildings*. Considering the HWM is equal to the BFE (10 feet NAVD 88) in this area, a primary differentiator was whether or not the building was constructed to exceed the NFIP minimum elevation requirement. The policy data across the 103 buildings with policies in this area, a 65% insurance take up rate, was consistent with the observations in the field. The average building claims for houses built after 1990 are about half those built in the 1980s and building claims for the limited number of *elevated buildings* are about half those for *non-elevated buildings*, which is the predominant building type in this area. Table 31 through Table 35 provide the number of houses built by decade, the number of insured buildings, and a summary of NFIP building and contents claims by decade as well as by building type (elevated vs non-elevated). The percentages in Table 31 are intended to help illustrate how similar the distribution of buildings built by decade is compared to the distribution of policies by decade.

Table 31: Number of Single-Family Residential Buildings by Decade Built and NFIP Insurance Policies within Area of Interest No. 5

Decade Built	Total Buildings	Percent of All Buildings	Average Size	Buildings w/ Policy	Percent of All Policies	Average Size
Pre 1980	0	0%	-	0	0%	-
1980s	111	70%	1,794	73	71%	1,803
1990s	32	20%	2,369	19	18%	2,397
2000s	12	8%	2,636	8	8%	2,688
Post 2010	3	2%	2,118	3	3%	2,118
All	158		1,981	103		1,991

Table 32: Hurricane Ian NFIP Building Claims within Area of Interest No. 5 by Decade Built

Decade Built	Active Policies	Average Total Claim	Average Building Claim	Average Size	Average Building Claim per square foot	Average Building Coverage	Quantity Max NFIP Coverage	Quantity Max Building Coverage
Pre 1980	0	\$-	\$-	-	\$-	\$238,346	0	0
1980s	73	\$168,660	\$149,791	1,803	\$88.25	\$246,073	6	5
1990s	19	\$92,027	\$77,254	2,397	\$34.43	\$296,833	0	0
2000s	8	\$77,583	\$66,437	2,688	\$29.11	\$242,397	0	0
Post 2010	3	\$19,130	\$19,130	2,118	\$8.76	\$250,000	0	0
All	103	\$143,095	\$126,131	1,991	\$71.42	\$245,320	6	5

Table 33: Hurricane Ian NFIP Contents Claims within Area of Interest No. 5 by Decade Built

Decade Built	Active Policies	Average Total Claim	Average Contents Claim	Average Size	Average Contents Claim per square foot	Average Contents Coverage	Quantity Max NFIP Coverage	Quantity Max Contents Coverage
Pre 1980	0	\$-	\$-	-	\$-	\$-	0	0
1980s	45	\$178,574	\$30,610	1,804	\$17.90	\$54,038	0	21
1990s	16	\$102,174	\$17,542	2,423	\$7.92	\$74,919	0	0
2000s	5	\$73,548	\$17,835	2,504	\$7.52	\$100,000	0	0
Post 2010	0	\$-	\$-	-	\$-	\$-	0	0
All	66	\$152,097	\$26,474	2,007	\$14.70	\$62,582	0	21

Table 34: Hurricane Ian NFIP Building Claims within Area of Interest No. 5 by *Elevated* versus *Non-elevated Building Type*

Building Type	Active Policies	Average Total Claim	Average Building Claim	Average Size	Average Building Claim per square foot	Average Building Coverage	Quantity Max NFIP Coverage	Quantity Max Building Coverage
Non-elevated	96	\$147,494	\$129,698	1,952	\$74.13	\$239,982	6	5
Elevated	7	\$82,765	\$77,204	2,529	\$34.17	\$243,429	0	0
All	103	\$143,095	\$126,131	1,991	\$71.42	\$245,320	6	5

Table 35: Hurricane Ian NFIP Contents Claims within Area of Interest No. 5 by *Elevated* versus *Non-elevated Building Type*

Building Type	Active Policies	Average Total Claim	Average Contents Claim	Average Size	Average Contents Claim per square foot	Average Contents Coverage	Quantity Max NFIP Coverage	Quantity Max Contents Coverage
Non-elevated	62	\$153,591	\$27,554	1,957	\$15.36	\$62,135	0	21
Elevated	4	\$128,925	\$9,732	2,790	\$4.35	\$69,500	0	0
All	66	\$152,097	\$26,474	2,007	\$14.70	\$62,582	0	21

Area of Interest No. 6.

Area of Interest No. 6 consists of approximately 150 single-family houses and is located near the center of Sanibel Island north of W Gulf Drive in Lee County. Based on parcel data, the first house constructed in this area was built in 1955. Approximately 50% of the houses were built in the 1980s, and less than 15% were built post 2000. The entire area is within the Special Flood Hazard Area, with a majority of the area in Zone AE with a BFE of 8 to 10 feet NAVD 88. Two USGS HWMs were measured in this area and ranged from 9 to 11 feet NAVD 88. See Figure 14 for a general map of the area.

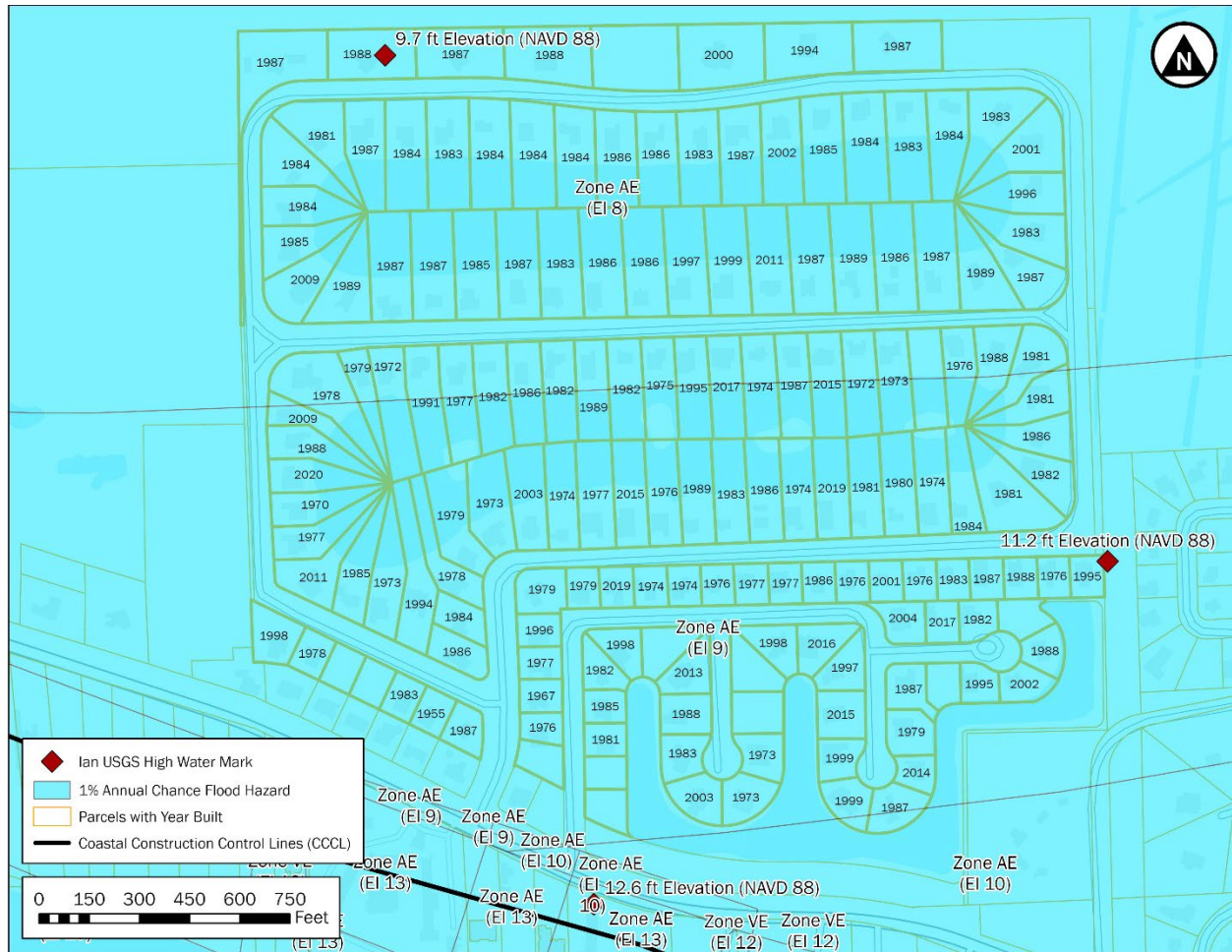


Figure 14: Map of Area of Interest No. 6

The houses in this area are predominantly elevated, likely because of the proximity to the coast as this Area of Interest is just north of Gulf Drive on Sanibel Island. Approximately 4 feet of water was reported by homeowners in garages and other enclosures below *elevated buildings*. Limited to no damage was reported above the lowest floor of the *elevated buildings* visited. Some structural damage was observed to *non-elevated buildings* and a few slab-on-grade houses were already demolished. Figure 15 provides examples of representative single-family houses within Area of Interest No. 6.



Source: NSF StEER

Figure 15: Representative single-family houses in Area of Interest No. 6 from 1970 to 2020

The performance of *elevated buildings* was likely influenced by the proximity of the area to the coast, as some buildings appeared to be constructed to meet Zone V requirements even though the area was Zone AE. In general, building performance was consistent with what would be expected, especially the performance of *elevated buildings* with an average building claim more than 3.5 times less than *non-elevated buildings* (\$40,023 versus \$144,842). There are 11 post-2010 buildings, 8 elevated and 3 non-elevated; the average building claim for the *elevated buildings* is \$34,585, or \$13.53 per square foot, which is relatively close to the \$11.31 per square foot for houses built in the 2000s in this area, compared to \$190,939 for the three *non-elevated buildings*. The building type also likely explains the increased average building claim in post-2010 buildings compared to previous decades (post-2010 average is \$77,227 versus \$25,453 for buildings built in 2000s). Table 36 through Table 40 provide the number of houses built by decade, the number of insured buildings, and a summary of NFIP building and contents claims by decade as well as by building type (elevated vs non-elevated). The percentages in Table 36 are intended to help illustrate how similar the distribution of buildings built by decade is compared to the distribution of policies by decade.

Table 36: Number of Single-Family Residential Buildings by Decade Built and NFIP Insurance Policies within Area of Interest No. 6

Decade Built	Total Buildings	Percent of All Buildings	Average Size	Buildings w/ Policy	Percent of All Policies	Average Size
Pre 1980	38	25%	1,807	19	19%	1,906
1980s	76	50%	1,804	46	46%	1,771
1990s	16	10%	2,234	14	14%	2,252
2000s	10	7%	2,447	10	10%	2,447
Post 2010	13	8%	2,599	11	11%	2,527
All	153		1,959	100		2,015

Table 37: Hurricane Ian NFIP Building Claims within Area of Interest No. 6 by Decade Built

Decade Built	Active Policies	Average Total Claim	Average Building Claim	Average Size	Average Building Claim per square foot	Average Building Coverage	Quantity Max NFIP Coverage	Quantity Max Building Coverage
Pre 1980	19	\$224,819	\$189,550	1,906	\$105.54	\$238,346	5	0
1980s	46	\$44,742	\$41,045	1,771	\$23.25	\$246,073	0	0
1990s	14	\$50,392	\$47,012	2,252	\$20.39	\$296,833	0	0
2000s	10	\$25,453	\$25,453	2,447	\$11.31	\$242,397	0	0
Post 2010	11	\$88,625	\$77,227	2,527	\$30.27	\$250,000	0	0
All	100	\$82,646	\$72,517	2,015	\$38.07	\$245,320	5	0

Table 38: Hurricane Ian NFIP Contents Claims within Area of Interest No. 6 by Decade Built

Decade Built	Active Policies	Average Total Claim	Average Contents Claim	Average Size	Average Contents Claim per square foot	Average Contents Coverage	Quantity Max NFIP Coverage	Quantity Max Contents Coverage
Pre 1980	15	\$242,706	\$44,675	1,894	\$24.11	\$66,893	15	\$242,706
1980s	43	\$47,230	\$3,954	1,759	\$2.22	\$84,067	43	\$47,230
1990s	13	\$40,616	\$3,639	2,259	\$1.49	\$93,231	13	\$40,616
2000s	9	\$22,923	\$0	2,564	\$0.00	\$94,444	9	\$22,923
Post 2010	9	\$100,004	\$13,931	2,534	\$6.26	\$100,000	9	\$100,004
All	89	\$82,088	\$11,380	2,014	\$5.99	\$85,172	89	\$82,088

Table 39: Hurricane Ian NFIP Building Claims within Area of Interest No. 6 by *Elevated* versus *Non-elevated Building Type*

Building Type	Active Policies	Average Total Claim	Average Building Claim	Average Size	Average Building Claim per square foot	Average Building Coverage	Quantity Max NFIP Coverage	Quantity Max Building Coverage
Non-elevated	31	\$172,090	\$144,842	1,968	\$75.92	\$242,710	5	0
Elevated	69	\$42,461	\$40,023	2,036	\$21.06	\$250,000	0	0
All	100	\$82,646	\$72,517	2,015	\$38.07	\$245,320	5	0

Table 40: Hurricane Ian NFIP Contents Claims within Area of Interest No. 6 by *Elevated* versus *Non-elevated Building Type*

Building Type	Active Policies	Average Total Claim	Average Contents Claim	Average Size	Average Contents Claim per square foot	Average Contents Coverage	Quantity Max NFIP Coverage	Quantity Max Contents Coverage
Non-elevated	26	\$177,674	\$32,488	2,006	\$16.72	\$73,596	1	4
Elevated	63	\$42,640	\$2,669	2,018	\$1.56	\$89,949	0	3
All	89	\$82,088	\$11,380	2,014	\$5.99	\$85,172	1	7

Area of Interest No. 7.

Area of Interest No. 7 consists of approximately 220 single-family houses and is located near the western end of Estero Island/Fort Myers Beach north of Estero Boulevard in Lee County. Based on parcel data, the first house constructed in this area was built in 1939. Approximately 75% of the houses were built before 1980, and less than 20% were built post 2000. The entire area is within the Special Flood Hazard Area, with a majority of the area in Zone AE with a BFE of 10 to 13 feet NAVD 88; the southernmost part of the area is Zone VE with a BFE of 14 feet NAVD 88. A USGS HWM was measured in this area at approximately 13 feet NAVD 88. See Figure 16 for a general map of the area.

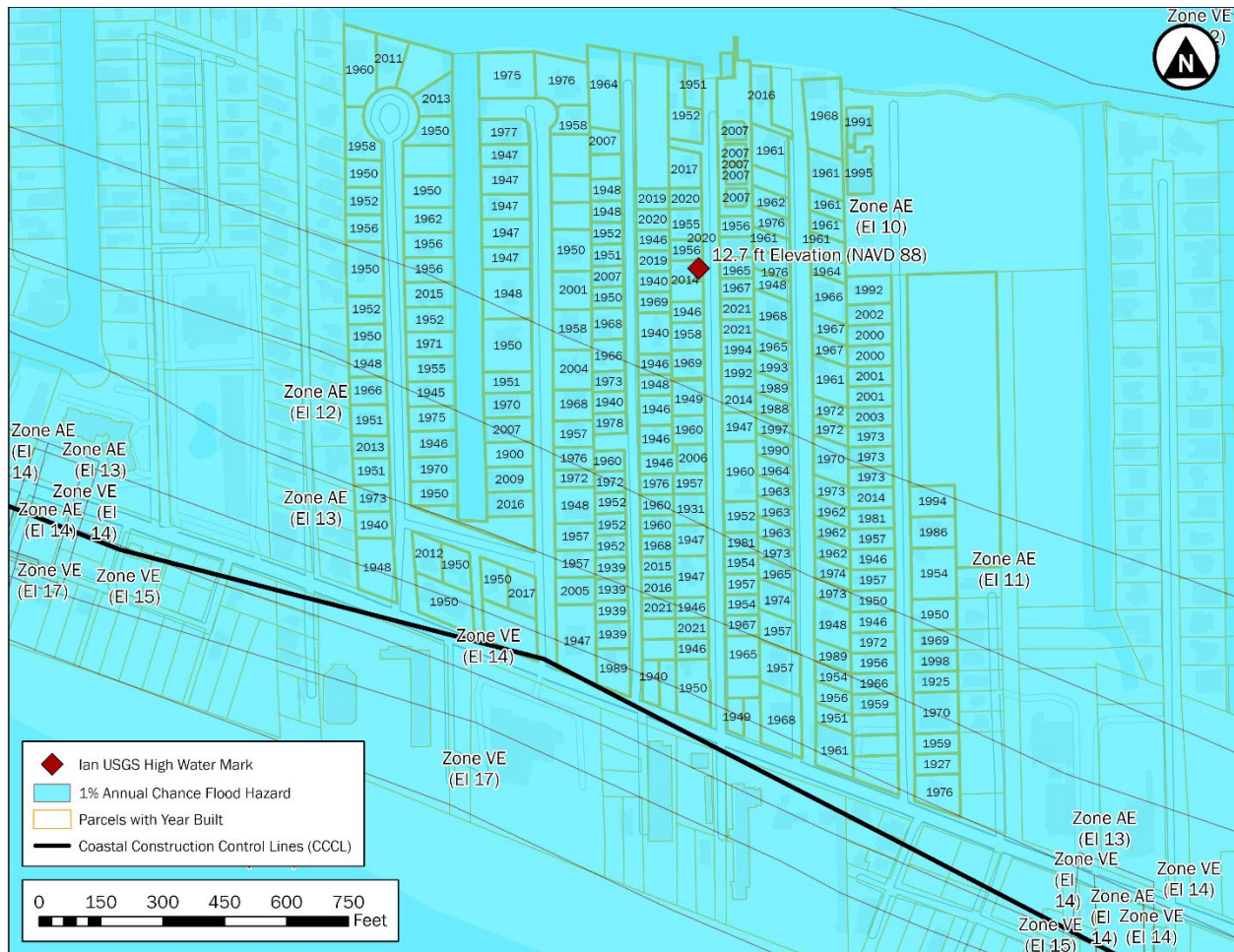


Figure 16: Map of Area of Interest No. 7

The houses in this area are a relatively even mixture of *elevated* and *non-elevated buildings*, with the pre-1980 construction being predominantly *non-elevated* and the newer post-1980 construction being predominantly *elevated buildings*. Areas below the lowest floor were enclosed (either partially or fully) in two-thirds to three-quarters of the *elevated buildings*. During site visits, homeowners reported 8 feet of water inundation in *non-elevated houses* and enclosures below *elevated buildings* during the hurricane. Figure 17 provides examples of representative single-family houses within Area of Interest No. 7.



Figure 17: Representative single-family houses in Area of Interest No. 7 from 1946 to 2021

Some structural damage was observed in this area, especially to slab-on-grade, single-story construction and older *elevated buildings* with insufficient loads or foundations to withstand the storm surge on Estero Island; in some cases, mainly older *non-elevated buildings*, houses were being demolished. Most buildings, unless sufficiently elevated above the floodwaters, had extensive interior damage with finishes having been or being removed. Some of highest flood depths observed by the MAT were noted in this area; however, like other areas, observed building performance was generally as expected with newer *elevated buildings* having considerably less damage than older *non-elevated buildings*. The policy data, including the average building claims being consistently lower for newer houses, reinforced observations made in the field. Note this area had one of the highest average building claims per square foot for pre-1980 construction (\$131.18), which was expected considering the excessive flood depths and the higher percentage of older *non-elevated buildings*. Table 41 through Table 45 provide the number of houses built by decade, the number of insured buildings, and a summary of NFIP building and contents claims by decade as well as by building type (elevated vs non-elevated). The percentages in Table 41 are intended to help illustrate how similar the distribution of buildings built by decade is compared to the distribution of policies by decade.

Table 41: Number of Single-Family Residential Buildings by Decade Built and NFIP Insurance Policies within Area of Interest No. 7

Decade Built	Total Buildings	Percent of All Buildings	Average Size	Buildings w/ Policy	Percent of All Policies	Average Size
Pre 1980	163	74%	1,278	65	64%	1,294
1980s	6	3%	1,550	3	3%	1,433
1990s	9	4%	1,734	7	7%	1,246
2000s	20	9%	1,872	12	12%	1,714
Post 2010	23	10%	1,950	14	14%	1,942
All	221		1,427	101		1,434

Table 42: Hurricane Ian NFIP Building Claims within Area of Interest No. 7 by Decade Built

Decade Built	Active Policies	Average Total Claim	Average Building Claim	Average Size	Average Building Claim per square foot	Average Building Coverage	Quantity Max NFIP Coverage	Quantity Max Building Coverage
Pre 1980	65	\$161,844	\$152,106	1,294	\$131.18	\$238,346	7	17
1980s	3	\$136,388	\$135,563	1,433	\$88.04	\$246,073	1	0
1990s	7	\$49,809	\$49,809	1,246	\$43.42	\$296,833	0	0
2000s	12	\$14,272	\$13,997	1,714	\$7.98	\$242,397	0	0
Post 2010	14	\$13,602	\$13,602	1,942	\$7.70	\$250,000	0	0
All	101	\$115,242	\$108,917	1,434	\$92.07	\$240,603	8	17

Table 43: Hurricane Ian NFIP Contents Claims within Area of Interest No. 7 by Decade Built

Decade Built	Active Policies	Average Total Claim	Average Contents Claim	Average Size	Average Contents Claim per square foot	Average Contents Coverage	Quantity Max NFIP Coverage	Quantity Max Contents Coverage
Pre 1980	32	\$162,020	\$19,176	1,191	\$18.67	\$27,969	0	20
1980s	1	\$86,788	\$2,474	990	\$2.50	\$33,600	0	0
1990s	6	\$34,071	\$0	1,270	\$0.00	\$35,883	0	0
2000s	9	\$12,275	\$366	1,787	\$0.28	\$49,578	0	0
Post 2010	9	\$17,084	\$0	1,871	\$0.00	\$59,533	0	0
All	57	\$100,704	\$10,867	1,397	\$10.57	\$37,296	0	20

Table 44: Hurricane Ian NFIP Building Claims within Area of Interest No. 7 by Elevated versus Non-elevated Building Type

Building Type	Active Policies	Average Total Claim	Average Building Claim	Average Size	Average Building Claim per square foot	Average Building Coverage	Quantity Max NFIP Coverage	Quantity Max Building Coverage
Non-elevated	46	\$159,921	\$151,049	1,403	\$124.81	\$200,285	6	11
Elevated	55	\$77,873	\$73,679	1,460	\$64.68	\$223,984	2	6
All	101	\$115,242	\$108,917	1,434	\$92.07	\$240,603	8	17

Table 45: Hurricane Ian NFIP Contents Claims within Area of Interest No. 7 by Elevated versus Non-elevated Building Type

Building Type	Active Policies	Average Total Claim	Average Contents Claim	Average Size	Average Contents Claim per square foot	Average Contents Coverage	Quantity Max NFIP Coverage	Quantity Max Contents Coverage
Non-elevated	21	\$159,147	\$18,510	1,314	\$17.28	\$32,224	0	13
Elevated	36	\$66,612	\$6,408	1,446	\$6.66	\$40,256	0	7
All	57	\$100,704	\$10,867	1,397	\$10.57	\$37,296	0	20

Area of Interest No. 8.

Area of Interest No. 8 consists of approximately 220 single-family houses and is located along Estero Bay in Lee County. Development in this area started in the 1950s. Approximately 50% of the houses were built before 1980 and less than 20% were built post 2000. Almost the entire area is within the Special Flood Hazard Area, Zone AE with a BFE of 10 feet NAVD 88 or higher. See Figure 18 for a general map of the area.

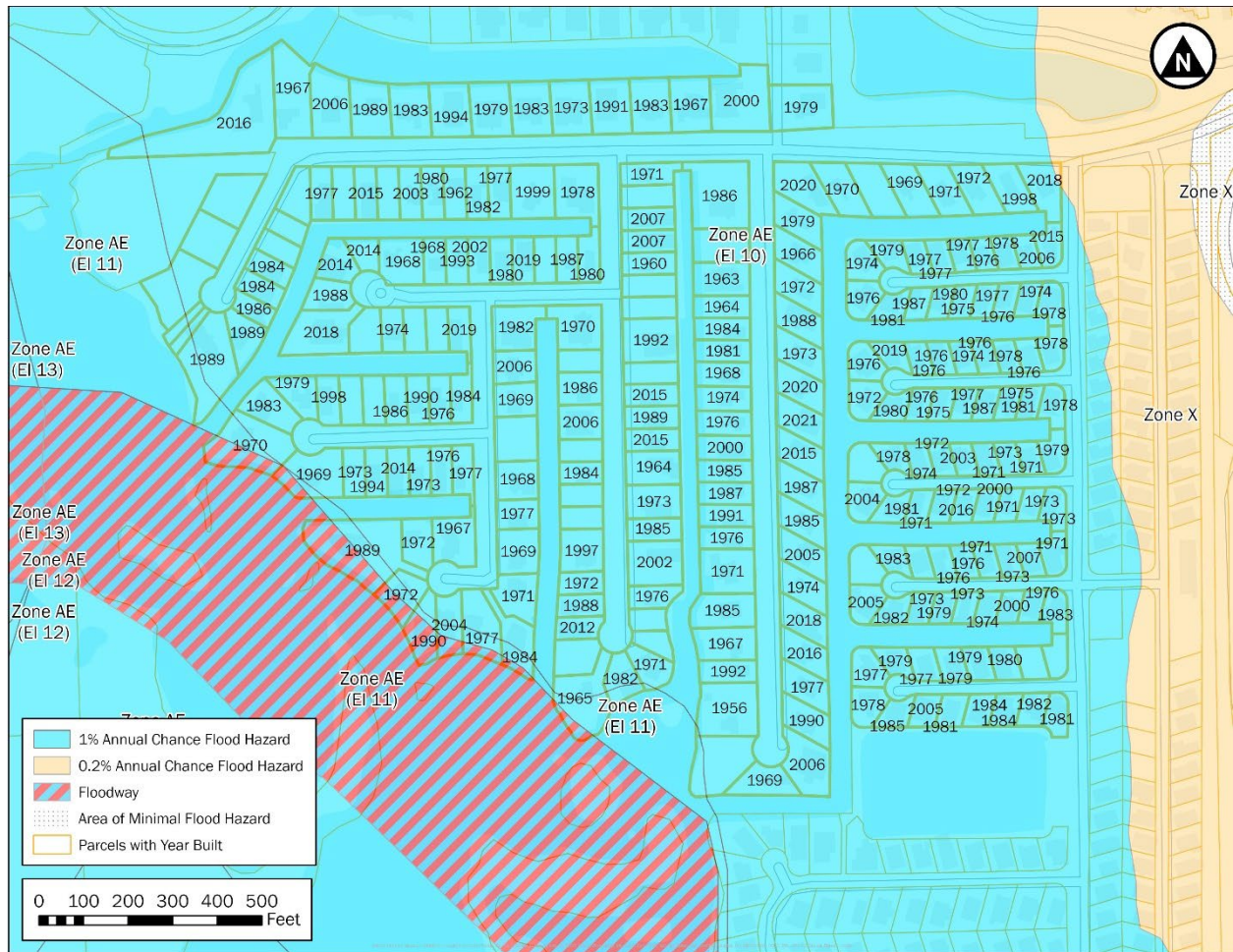


Figure 18: Map of Area of Interest No. 8

The houses in this area are a relatively even mixture of elevated and *non-elevated buildings*, with a slightly higher percentage of *elevated buildings*. Areas below the lowest floor are enclosed (either partially or fully) in three-quarters or more of the *elevated buildings*. No major structural damage was observed; damage was predominantly related to interior walls and finishes, which had been or were being removed. During site visits, homeowners reported 6 feet of water in non-elevated houses as well as in enclosures below the lowest floor of elevated houses. Figure 19 provides examples of representative single-family houses within Area of Interest No. 8.



Figure 19: Representative single-family houses in Area of Interest No. 8 from the 1960s to 2019

The 28% flood insurance take up rate (62 of 222 buildings with flood insurance) is not ideal for a representative analysis, but this area was selected because it is representative of observations along Estero Bay. Based on field observations, older houses had more damage than newer houses and the claims data are consistent with that finding with the average pre-1980 building claim being triple the average post-1980 claim (\$129,943 versus about \$41,780). The post-2010 average building claim (\$31,889) is higher than the approximately \$18,000 average for houses built in the 1990s and 2000s. This is largely because one of the nine post-2010 buildings is a *non-elevated building* and has a building claim of approximately \$165,000; excluding this *non-elevated building* reduces the post-2010 average building claim to approximately \$15,200. Overall, the building claims are consistent with observations made in the field as average damages for *non-elevated buildings* are more than triple the *elevated buildings* (\$144,223 vs \$38,284). No noticeable difference was observed in the field for the few buildings in the floodway; the policy data reflects a slightly higher average building claim for properties closer to or in the floodway. Table 46 through Table 50 provide the number of houses built by decade, the number of insured buildings, and a summary of

NFIP building and contents claims by decade as well as by building type (elevated vs non-elevated). The percentages in Table 46 are intended to help illustrate how similar the distribution of buildings built by decade is compared to the distribution of policies by decade.

Table 46: Number of Single-Family Residential Buildings by Decade Built and NFIP Insurance Policies within Area of Interest No. 8

Decade Built	Total Buildings	Percent of All Buildings	Average Size	Buildings w/ Policy	Percent of All Policies	Average Size
Pre 1980	112	50%	1,098	24	39%	1,276
1980s	54	24%	1,223	13	21%	1,396
1990s	14	6%	1,488	7	11%	1,784
2000s	21	9%	1,831	9	15%	2,162
Post 2010	21	9%	1,756	9	15%	2,022
All	222		1,285	62	28%	1,595

Table 47: Hurricane Ian NFIP Building Claims within Area of Interest No. 8 by Decade Built

Decade Built	Active Policies	Average Total Claim	Average Building Claim	Average Size	Average Building Claim per square foot	Average Building Coverage	Quantity Max NFIP Coverage	Quantity Max Building Coverage
Pre 1980	24	\$148,051	\$129,943	1,276	\$103.28	\$238,346	1	5
1980s	13	\$91,962	\$77,238	1,396	\$59.65	\$246,073	0	2
1990s	7	\$18,162	\$18,162	1,784	\$11.98	\$296,833	0	0
2000s	9	\$19,371	\$18,828	2,162	\$8.05	\$242,397	0	0
Post 2010	9	\$32,188	\$31,889	2,022	\$15.33	\$250,000	0	0
All	62	\$86,127	\$75,908	1,595	\$57.23	\$245,320	1	7

Table 48: Hurricane Ian NFIP Contents Claims within Area of Interest No. 8 by Decade Built

Decade Built	Active Policies	Average Total Claim	Average Contents Claim	Average Size	Average Contents Claim per square foot	Average Contents Coverage	Quantity Max NFIP Coverage	Quantity Max Contents Coverage
Pre 1980	16	\$161,320	\$27,162	1,281	\$21.03	\$35,438	1	9
1980s	11	\$97,737	\$17,401	1,485	\$13.61	\$54,773	0	4
1990s	5	\$11,628	\$0	1,939	\$0.00	\$60,400	0	0
2000s	9	\$19,371	\$544	2,162	\$0.43	\$72,611	0	0
Post 2010	5	\$20,038	\$539	2,408	\$0.25	\$82,000	0	0
All	46	\$86,715	\$13,774	1,696	\$10.68	\$55,109	1	13

Table 49: Hurricane Ian NFIP Building Claims within Area of Interest No. 8 by Elevated versus Non-elevated Building Type

Building Type	Active Policies	Average Total Claim	Average Building Claim	Average Size	Average Building Claim per square foot	Average Building Coverage	Quantity Max NFIP Coverage	Quantity Max Building Coverage
Non-elevated	28	\$144,223	\$126,424	1,306	\$98.23	\$199,632	1	4
Elevated	34	\$38,284	\$34,307	1,833	\$23.47	\$216,615	0	3
All	62	\$86,127	\$75,908	1,595	\$57.23	\$245,320	1	7

Table 50: Hurricane Ian NFIP Contents Claims within Area of Interest No. 8 by Elevated versus Non-elevated Building Type

Building Type	Active Policies	Average Total Claim	Average Contents Claim	Average Size	Average Contents Claim per square foot	Average Contents Coverage	Quantity Max NFIP Coverage	Quantity Max Contents Coverage
Non-elevated	19	\$156,756	\$26,231	1,275	\$20.47	\$41,105	1	8
Elevated	27	\$37,427	\$5,008	1,993	\$3.79	\$64,963	0	5
All	46	\$86,715	\$13,774	1,696	\$10.68	\$55,109	1	13

Area of Interest No. 9.

Area of Interest No. 9 consists of approximately 200 single-family houses and is located along the Gulf of Mexico in Lee County. The area has a mixture of single-family houses, multi-family residential, mixed-use, and commercial buildings. This analysis focuses on single-family residential to be consistent with other Areas of Interest. Development in this area started in the 1950s. Approximately 25% of the houses were built before 1980, 50% were built between 1980 and 2010, and 25% were built post 2010. The entire area is within the Special Flood Hazard Area, Zone VE with a BFE of 15 feet NAVD 88 or higher. The area is also seaward of the Florida Department of Environmental Protection (FDEP) Coastal Construction Control Line. Multiple USGS HWMs were measured in this area between 10 to 12 feet NAVD 88. See Figure 20 for a general map of the area.

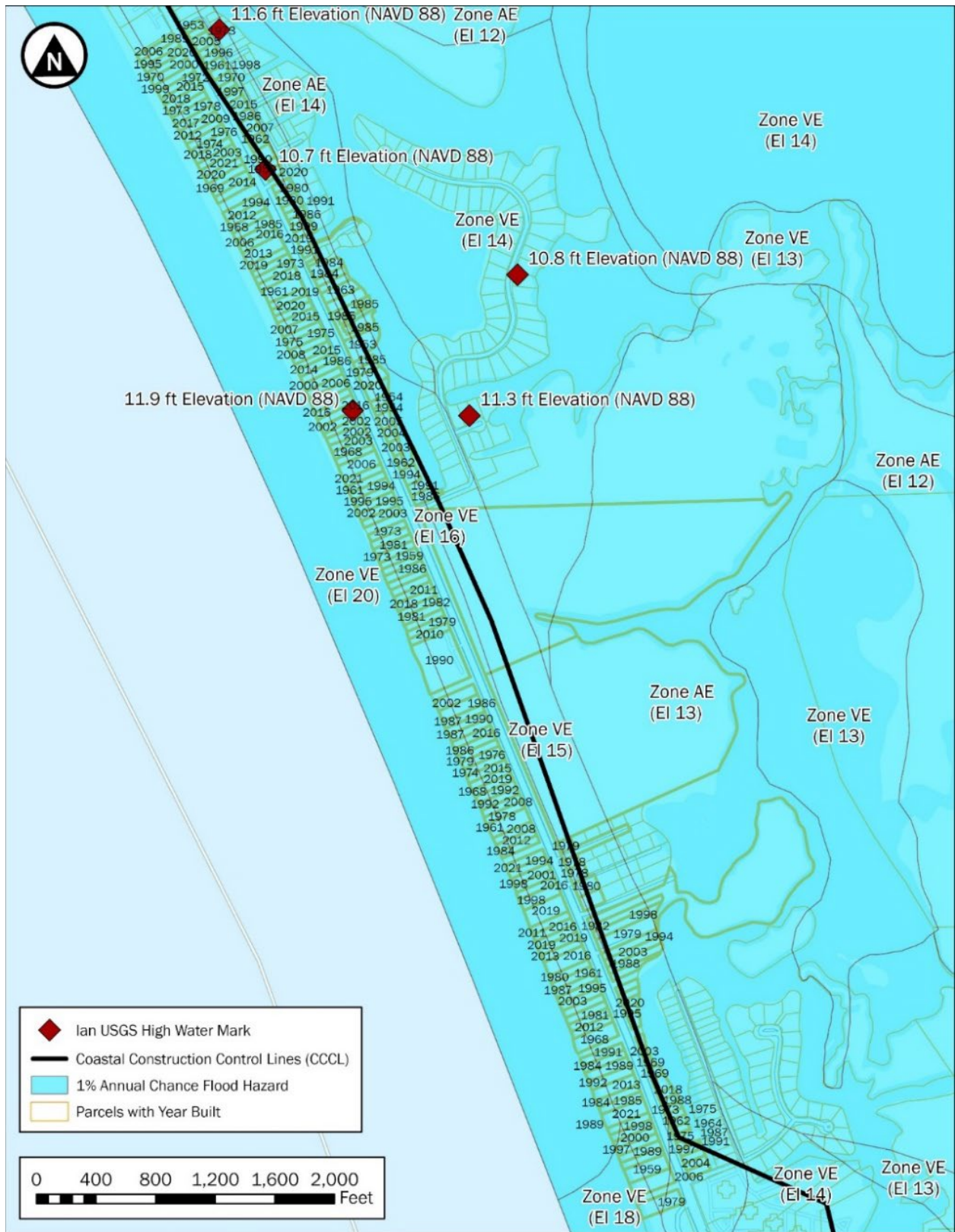


Figure 20: Map of Area of Interest No. 9

The 28% flood insurance take up rate (56 of 197 buildings with flood insurance) is not ideal for a representative analysis, but this area was selected because it is representative of observations for single-family construction immediately along the coast of the Gulf of Mexico. The houses in this area with NFIP policies are a relatively even mixture of *elevated* and *non-elevated buildings*, with a slightly higher percentage of *elevated buildings* and with the pre-1980 construction being predominantly non-elevated and the newer post-1980 construction being predominantly elevated. Building performance varied greatly in this area, with several older non-elevated or insufficiently *elevated buildings* immediately along the coast destroyed by storm surge, in many cases only leaving remnants of the building foundation. On the other hand, several newer, properly *elevated buildings* sustained minimal structural damage with damage limited to the loss of breakaway walls, interior finishes, and other non-flood damage-resistant materials below the lowest floor of the *elevated buildings*. Figure 21 provides examples of representative single-family houses within Area of Interest No. 9.



Source: FDEP

Figure 21: Representative single-family houses in Area of Interest No. 9 from 1961 to 2021

One immediately noticeable observation in this area was the size of construction. Newer houses were considerably larger than older ones and the active insurance policy data supports this trend with the average building size in post-

2010 construction being almost triple the size of pre-1980 construction (5,084 square feet versus 1,704 square feet). This area also had a considerable number of older buildings that were destroyed; the policy data confirmed this observation as this area had the highest average building claims per square foot for pre-1980 construction (\$134.71), which was expected considering the immediate vicinity to the coast, storm surge, and percentage of older *non-elevated buildings*. One outlier in the policy data was an increase in the average building claim for post-2010 construction compared to houses built in the 2000s. While the average house size is larger post 2010, which contributes to more damage/cost to repair, the size is not the only contributing factor. There are 14 post-2010 houses, 6 of them elevated and 8 *non-elevated buildings*. The average claim for the *elevated buildings* is half that of *non-elevated buildings* (\$20,299 versus \$41,476); reinforcing that the building type is likely the key factor affecting the average building claim. The performance of *elevated* versus *non-elevated buildings* is not unique to post-2010 houses, across the 56 insured properties there is a considerable difference with the average building claim per square foot being triple in *non-elevated* versus *elevated buildings* (\$77.58 versus \$23.29). Pre- versus post-FIRM construction is another policy data attribute that clearly differentiated performance in this Area of Interest with the average building claim per square foot of \$78.56 for pre-FIRM versus \$14.56 for post-FIRM. Table 51 through Table 55 provide the number of houses built by decade, the number of insured buildings, and a summary of NFIP building and contents claims by decade as well as by building type (elevated vs non-elevated). The percentages in Table 51 are intended to help illustrate how similar the distribution of buildings built by decade is compared to the distribution of policies by decade.

Table 51: Number of Single-Family Residential Buildings by Decade Built and NFIP Insurance Policies within Area of Interest No. 9

Decade Built	Total Buildings	Percent of All Buildings	Average Size	Buildings w/ Policy	Percent of All Policies	Average Size
Pre 1980	47	24%	1,541	12	21%	1,704
1980s	34	17%	1,876	11	20%	1,945
1990s	30	15%	2,596	11	20%	2,285
2000s	33	17%	4,124	7	13%	4,719
Post 2010	53	27%	4,960	15	27%	5,084
All	197		3,112	56		3,148

Table 52: Hurricane Ian NFIP Building Claims within Area of Interest No. 9 by Decade Built

Decade Built	Active Policies	Average Total Claim	Average Building Claim	Average Size	Average Building Claim per square foot	Average Building Coverage	Quantity Max NFIP Coverage	Quantity Max Building Coverage
Pre 1980	12	\$213,992	\$191,921	1,704	\$134.71	\$238,346	5	0
1980s	11	\$114,159	\$106,906	1,945	\$64.42	\$246,073	0	0
1990s	11	\$33,693	\$33,563	2,285	\$14.61	\$213,500	0	0
2000s	7	\$14,285	\$14,285	4,719	\$3.61	\$242,397	0	0
Post 2010	15	\$31,745	\$31,745	5,084	\$6.41	\$250,000	0	0
All	56	\$85,186	\$79,007	3,148	\$46.56	\$240,603	5	0

Table 53: Hurricane Ian NFIP Contents Claims within Area of Interest No. 9 by Decade Built Example

Decade Built	Active Policies	Average Total Claim	Average Contents Claim	Average Size	Average Contents Claim per square foot	Average Contents Coverage	Quantity Max NFIP Coverage	Quantity Max Contents Coverage
Pre 1980	9	\$212,098	\$29,428	1,922	\$18.15	\$55,378	0	2
1980s	8	\$81,053	\$9,972	1,890	\$7.03	\$56,838	0	0
1990s	9	\$32,947	\$159	2,185	\$0.11	\$73,967	0	0
2000s	6	\$10,604	\$0	4,509	\$0.00	\$97,833	0	0
Post 2010	7	\$40,098	\$0	5,032	\$0.00	\$98,571	0	0
All	39	\$82,004	\$8,873	2,932	\$5.66	\$74,251	0	2

Table 54: Hurricane Ian NFIP Building Claims within Area of Interest No. 9 by Elevated versus Non-elevated Building Type

Building Type	Active Policies	Average Total Claim	Average Building Claim	Average Size	Average Building Claim per square foot	Average Building Coverage	Quantity Max NFIP Coverage	Quantity Max Building Coverage
Non-elevated	24	\$135,737	\$123,920	3,006	\$77.58	\$249,000	4	0
Elevated	32	\$47,273	\$45,322	3,254	\$23.29	\$238,647	1	0
All	56	\$85,186	\$79,007	3,148	\$46.56	\$240,603	5	0

Table 55: Hurricane Ian NFIP Contents Claims within Area of Interest No. 9 by Elevated versus Non-elevated Building Type

Building Type	Active Policies	Average Total Claim	Average Contents Claim	Average Size	Average Contents Claim per square foot	Average Contents Coverage	Quantity Max NFIP Coverage	Quantity Max Contents Coverage
Non-elevated	13	\$159,278	\$21,815	2,714	\$12.86	\$75,185	0	2
Elevated	26	\$43,367	\$2,402	3,042	\$2.05	\$73,785	0	0
All	39	\$82,004	\$8,873	2,932	\$5.66	\$74,251	0	2

Area of Interest No. 10.

Area of Interest No. 10 is a residential neighborhood with approximately 670 single-family houses along the Imperial River in Lee County. Development in this area started in the 1950s. Approximately 25% of the houses were built before 1980, 33% were built in the 1980s, and about 33% were built post 2000. Almost the entire area is within the Special Flood Hazard Area, Zone AE with a BFE of 10 feet NAVD 88. Multiple USGS HWMs were measured in this area at 9 feet NAVD 88. See Figure 22 for a general map of the area.

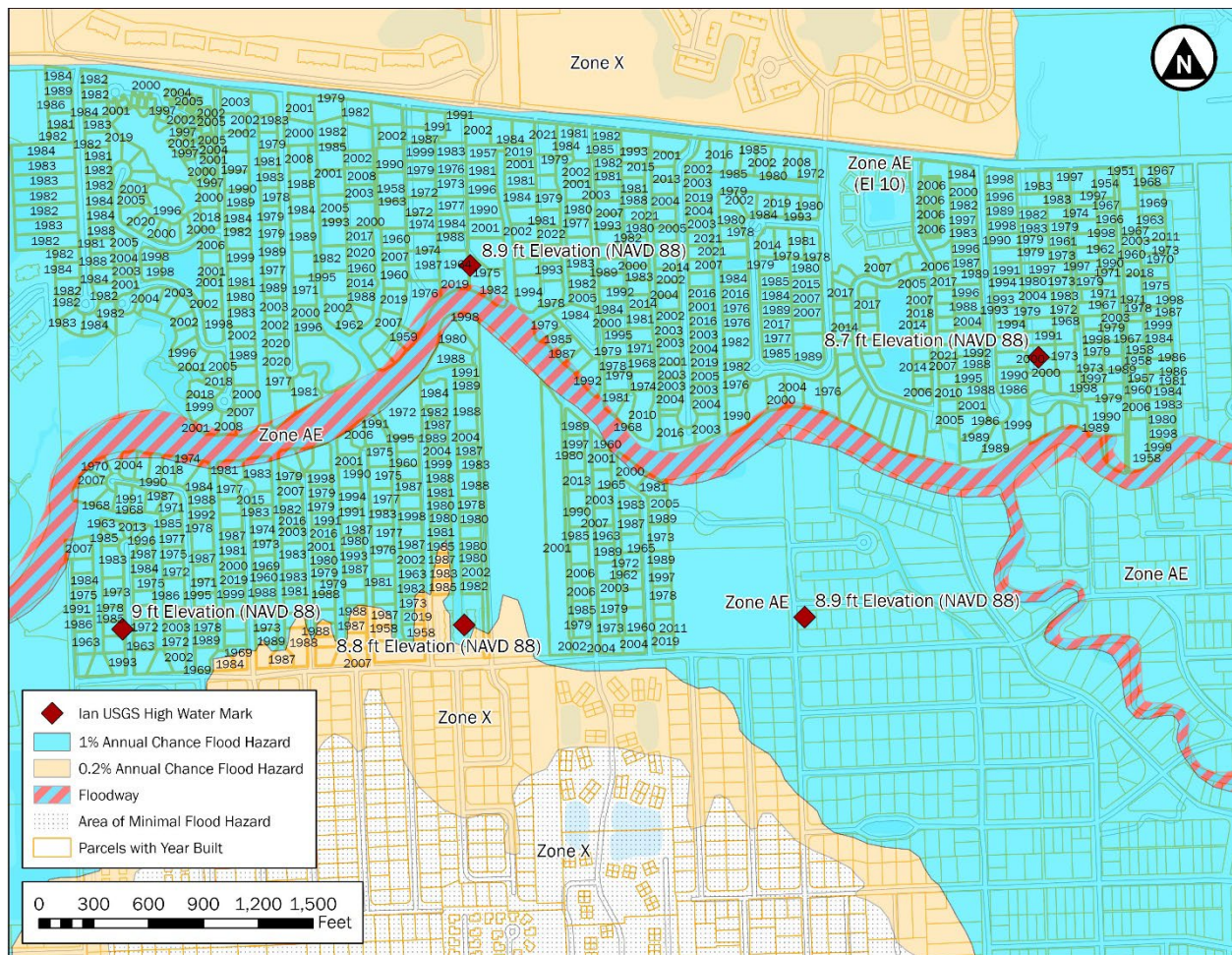


Figure 22: Map of Area of Interest No. 10

The houses in this area are predominantly non-elevated (about 75%). In cases where the houses are elevated, areas below the lowest floor are enclosed (either partially or fully). The MAT recorded HWMs ranging from 2 to 3 feet above the lowest floor in slab-on-grade houses. Homeowners verified flood depths ranged anywhere from 0 to 3 feet throughout the area. No major structural damage was observed. Damage was predominantly related to interior walls and finishes, which had been or were being removed. Figure 23 provides examples of representative single-family houses within Area of Interest No. 10 along with a HWM recorded by the MAT on a 1984 house during the pre-MAT visit in October.



Figure 23: Representative single-family houses in Area of Interest No. 10 from 1984 to 2021

The 35% flood insurance take up rate (235 of 669 buildings with flood insurance) is not ideal for a representative analysis, but this area was selected because it is representative of observations along the Imperial River. Building performance in this area was generally as expected with newer *elevated buildings* having considerably less damage than older *non-elevated buildings*. The policy data support field observations as newer buildings have lower average building claims, are larger in size, and are predominantly *elevated buildings*. The policy data especially reinforce the effectiveness of *elevated buildings* as the average building claim for a *non-elevated building* is more than five times that of an *elevated building* (\$88,306 versus \$16,574). Although *elevated buildings* performed noticeably well in this area, several *elevated buildings* were observed by the MAT to have damage to enclosures, especially to non-flood damage-resistant materials that had to be removed (this damage is likely not reflected in the policy data as it is unlikely to be covered under the standard NFIP insurance policy). Table 56 through Table 60 provide the number of houses built by decade, the number of insured buildings, and a summary of NFIP building and contents claims by decade as well as by building type (elevated vs non-elevated). The percentages in Table 56 are intended to help illustrate how similar the distribution of buildings built by decade is compared to the distribution of policies by decade.

Table 56: Number of Single-Family Residential Buildings by Decade Built and NFIP Insurance Policies within Area of Interest No. 10

Decade Built	Total Buildings	Percent of All Buildings	Average Size	Buildings w/ Policy	Percent of All Policies	Average Size
Pre 1980	156	23%	1,604	57	24%	1,665
1980s	214	32%	1,739	93	40%	1,734
1990s	90	13%	1,978	34	14%	2,246
2000s	146	22%	2,353	44	19%	2,493
Post 2010	63	9%	2,481	7	3%	2,878
All	669		1,943	235		1,968

Table 57: Hurricane Ian NFIP Building Claims within Area of Interest No. 10 by Decade Built

Decade Built	Active Policies	Average Total Claim	Average Building Claim	Average Size	Average Building Claim per square foot	Average Building Coverage	Quantity Max NFIP Coverage	Quantity Max Building Coverage
Pre 1980	57	\$132,856	\$118,360	1,665	\$74.05	\$238,346	1	5
1980s	93	\$118,494	\$100,613	1,734	\$59.60	\$246,073	2	3
1990s	34	\$17,649	\$15,606	2,246	\$6.56	\$213,500	0	0
2000s	44	\$15,265	\$11,998	2,493	\$4.98	\$242,397	0	0
Post 2010	7	\$10,949	\$10,710	2,878	\$3.55	\$250,000	0	0
All	235	\$84,856	\$73,349	1,968	\$43.53	\$240,603	3	8

Table 58: Hurricane Ian NFIP Contents Claims within Area of Interest No. 10 by Decade Built

Decade Built	Active Policies	Average Total Claim	Average Contents Claim	Average Size	Average Contents Claim per square foot	Average Contents Coverage	Quantity Max NFIP Coverage	Quantity Max Contents Coverage
Pre 1980	32	\$148,703	\$25,383	1,806	\$16.05	\$47,656	0	15
1980s	57	\$125,122	\$29,173	1,737	\$17.88	\$64,033	1	20
1990s	31	\$18,349	\$2,240	2,249	\$1.05	\$82,842	0	0
2000s	33	\$15,308	\$4,355	2,582	\$1.63	\$83,224	0	0
Post 2010	3	\$14,581	\$559	3,157	\$0.18	\$100,000	0	0
All	156	\$83,385	\$17,244	2,059	\$10.38	\$69,163	1	35

Table 59: Hurricane Ian NFIP Building Claims within Area of Interest No. 10 by Elevated versus Non-elevated Building Type

Building Type	Active Policies	Average Total Claim	Average Building Claim	Average Size	Average Building Claim per square foot	Average Building Coverage	Quantity Max NFIP Coverage	Quantity Max Building Coverage
Non-elevated	186	\$102,253	\$88,306	1,916	\$52.63	\$230,680	3	8
Elevated	49	\$18,818	\$16,574	2,165	\$9.01	\$247,612	0	0
All	235	\$84,856	\$73,349	1,968	\$43.53	\$240,603	3	8

Table 60: Hurricane Ian NFIP Contents Claims within Area of Interest No. 10 by Elevated versus Non-elevated Building Type

Building Type	Active Policies	Average Total Claim	Average Contents Claim	Average Size	Average Contents Claim per square foot	Average Contents Coverage	Quantity Max NFIP Coverage	Quantity Max Contents Coverage
Non-elevated	114	\$106,717	\$22,632	2,018	\$13.58	\$64,573	1	35
Elevated	42	\$20,058	\$2,618	2,171	\$1.70	\$81,621	0	0
All	156	\$83,385	\$17,244	2,059	\$10.38	\$69,163	1	35

Area of Interest No. 11.

Area of Interest No. 11 is a residential neighborhood with approximately 450 single-family houses along the Vanderbilt Bay/Vanderbilt Beach Intercoastal Waterway in Collier County. Development in this area started in the 1950s. Approximately one-third of the houses were built before 1980, one-third were built in the 1980s and 1990s, and one-third were built post 2000. Almost the entire area is within the Special Flood Hazard Area, predominantly Zone AE with a BFE of 9 feet NAVD 88 or higher. See Figure 24 for a general map of the area.

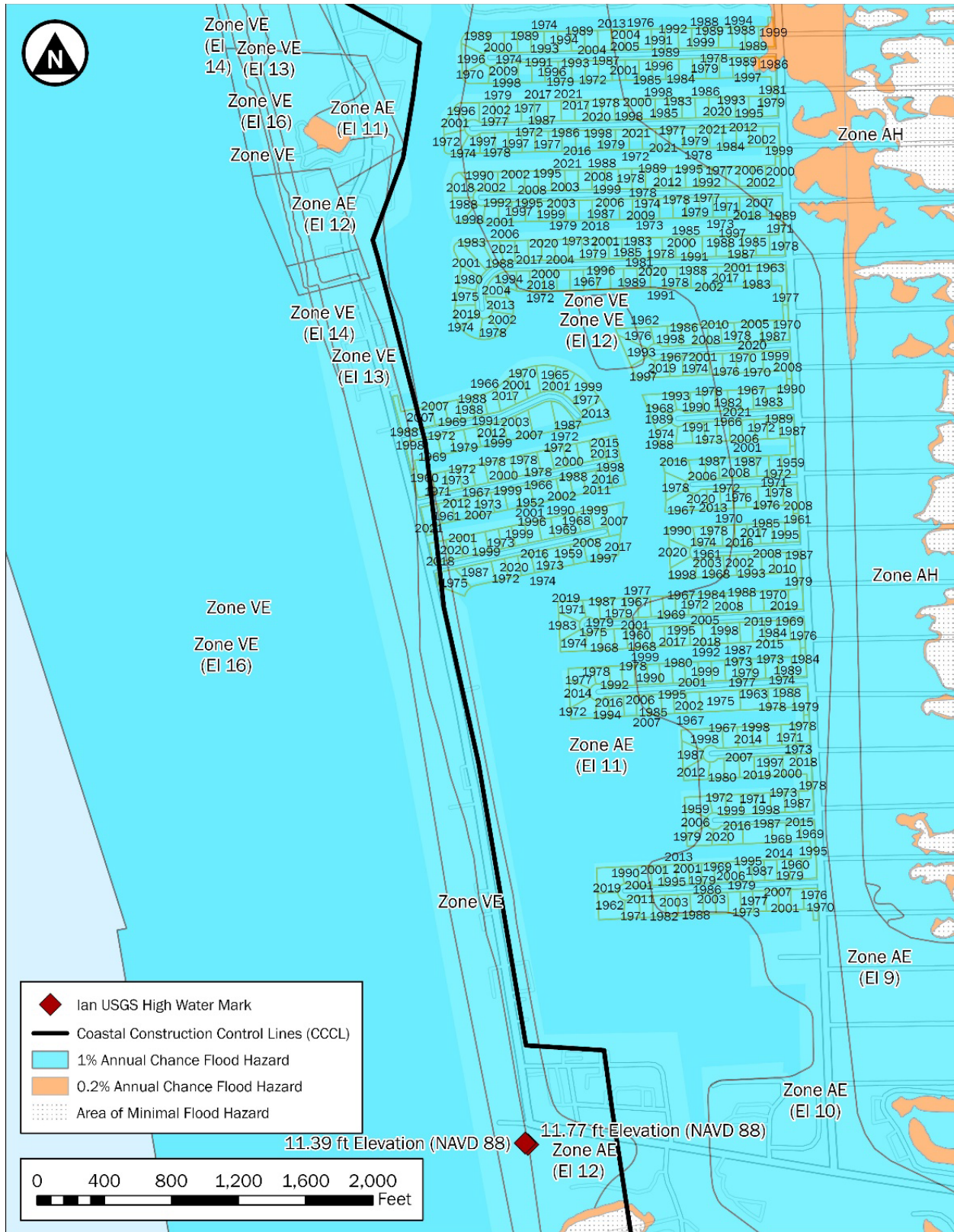


Figure 24: Map of Area of Interest No. 11

The houses in this area are about two-thirds non-elevated and one-third *elevated buildings*, and in cases where the houses were *elevated buildings*, areas below the lowest floor are enclosed (either partially or fully). The MAT recorded HWMs ranging from 4 to 5 feet above the lowest floor in slab-on-grade houses. Homeowners verified flood depths ranged anywhere from 2 to 6 feet throughout the area. No major structural damage was observed, damage was predominantly related to interior walls and finishes, which had been or were being removed. Figure 25 provides examples of representative single-family houses within Area of Interest No. 11 along with a HWM recorded by the MAT on a 1979 house during the pre-MAT visit in October.



Figure 25: Representative single-family houses in Area of Interest No. 11 from 1969 to 2022

Building performance in this area was generally as expected with newer *elevated buildings* having considerably less damage than older *non-elevated buildings*. The primary field observation was the extent and depth of flooding in this area approximately 40 miles south of Hurricane Ian’s track. The policy data was consistent with field observations as this Area of Interest has the third highest average building claim per building (\$132,914) and fifth average building claim per square foot (\$62.48) amongst all 12 Areas of Interest. On average *elevated buildings* had about one-third the damage compared to *non-elevated buildings* (\$56,846 versus \$166,921) and post-2010 buildings had about one-quarter of the damage compared to pre-1980 buildings (\$23.43 per square foot versus \$108.37 per square

foot). Although *elevated buildings* performed noticeably well in this area, several *elevated buildings* were observed by the MAT to have damage to enclosures, especially non-flood damage-resistant materials that had to be removed (this damage is likely not reflected in the policy data as it is unlikely to be covered under the standard NFIP insurance policy). Table 61 through Table 65 provide the number of houses built by decade, the number of insured buildings, and a summary of NFIP building and contents claims by decade as well as by building type (elevated vs non-elevated). The percentages in Table 61 are intended to help illustrate how similar the distribution of buildings built by decade is compared to the distribution of policies by decade.

Table 61: Number of Single-Family Residential Buildings by Decade Built and NFIP Insurance Policies within Area of Interest No. 11

Decade Built	Total Buildings	Percent of All Buildings	Average Size	Buildings w/ Policy	Percent of All Policies	Average Size
Pre 1980	161	35%	1,921	74	30%	1,909
1980s	76	17%	2,124	40	16%	2,190
1990s	81	18%	2,475	45	18%	2,413
2000s	78	17%	2,562	52	21%	2,613
Post 2010	58	13%	2,650	35	14%	2,810
All	454		2,257	246		2,324

Table 62: Hurricane Ian NFIP Building Claims within Area of Interest No. 11 by Decade Built

Decade Built	Active Policies	Average Total Claim	Average Building Claim	Average Size	Average Building Claim per square foot	Average Building Coverage	Quantity Max NFIP Coverage	Quantity Max Building Coverage
Pre 1980	74	\$245,175	\$203,840	1,909	\$108.37	\$238,346	29	3
1980s	40	\$124,449	\$98,966	2,190	\$46.10	\$246,073	5	0
1990s	45	\$150,739	\$125,386	2,413	\$53.13	\$213,500	7	0
2000s	52	\$135,497	\$111,859	2,613	\$44.13	\$242,397	8	0
Post 2010	35	\$71,437	\$62,714	2,810	\$23.43	\$250,000	4	0
All	246	\$160,367	\$132,914	2,324	\$62.48	\$240,603	53	3

Table 63: Hurricane Ian NFIP Building Claims within Area of Interest No. 11 by Decade Built

Decade Built	Active Policies	Average Total Claim	Average Contents Claim	Average Size	Average Contents Claim per square foot	Average Contents Coverage	Quantity Max NFIP Coverage	Quantity Max Contents Coverage
Pre 1980	56	\$260,084	\$54,621	1,914	\$28.81	\$70,289	11	19
1980s	32	\$126,695	\$31,854	2,188	\$14.44	\$93,472	4	2
1990s	40	\$148,791	\$28,523	2,420	\$11.66	\$89,972	4	4
2000s	50	\$137,123	\$24,584	2,598	\$9.91	\$98,982	4	1
Post 2010	28	\$76,059	\$10,903	2,721	\$4.34	\$98,429	0	0
All	206	\$162,895	\$32,784	2,330	\$15.34	\$88,501	23	26

Table 64: Hurricane Ian NFIP Building Claims within Area of Interest No. 11 by Elevated versus Non-elevated Building Type

Building Type	Active Policies	Average Total Claim	Average Building Claim	Average Size	Average Building Claim per square foot	Average Building Coverage	Quantity Max NFIP Coverage	Quantity Max Building Coverage
Non-elevated	170	\$203,584	\$166,921	2,251	\$79.44	\$247,188	49	2
Elevated	76	\$63,699	\$56,846	2,488	\$24.52	\$248,026	4	1
All	246	\$160,367	\$132,914	2,324	\$62.48	\$240,603	53	3

Table 65: Hurricane Ian NFIP Contents Claims within Area of Interest No. 11 by Elevated versus Non-elevated Building Type

Building Type	Active Policies	Average Total Claim	Average Contents Claim	Average Size	Average Contents Claim per square foot	Average Contents Coverage	Quantity Max NFIP Coverage	Quantity Max Contents Coverage
Non-elevated	140	\$208,699	\$44,519	2,252	\$20.88	\$85,067	21	25
Elevated	66	\$65,736	\$7,892	2,496	\$3.58	\$95,786	2	1
All	206	\$162,895	\$32,784	2,330	\$15.34	\$88,501	23	26

Area of Interest No. 12.

Area of Interest No. 12 is a residential neighborhood with approximately 280 single-family houses along the Venetian Bay in Collier County. Development in this area started in 1977. Approximately 50% of the houses were built before 1980, 25% were built between 1980 and 2010, and another 25% were built post 2010. Almost the entire area is within the Special Flood Hazard Area, predominantly Zone AE with a BFE of 9 through 11 feet NAVD 88. See Figure 26 for a general map of the area.

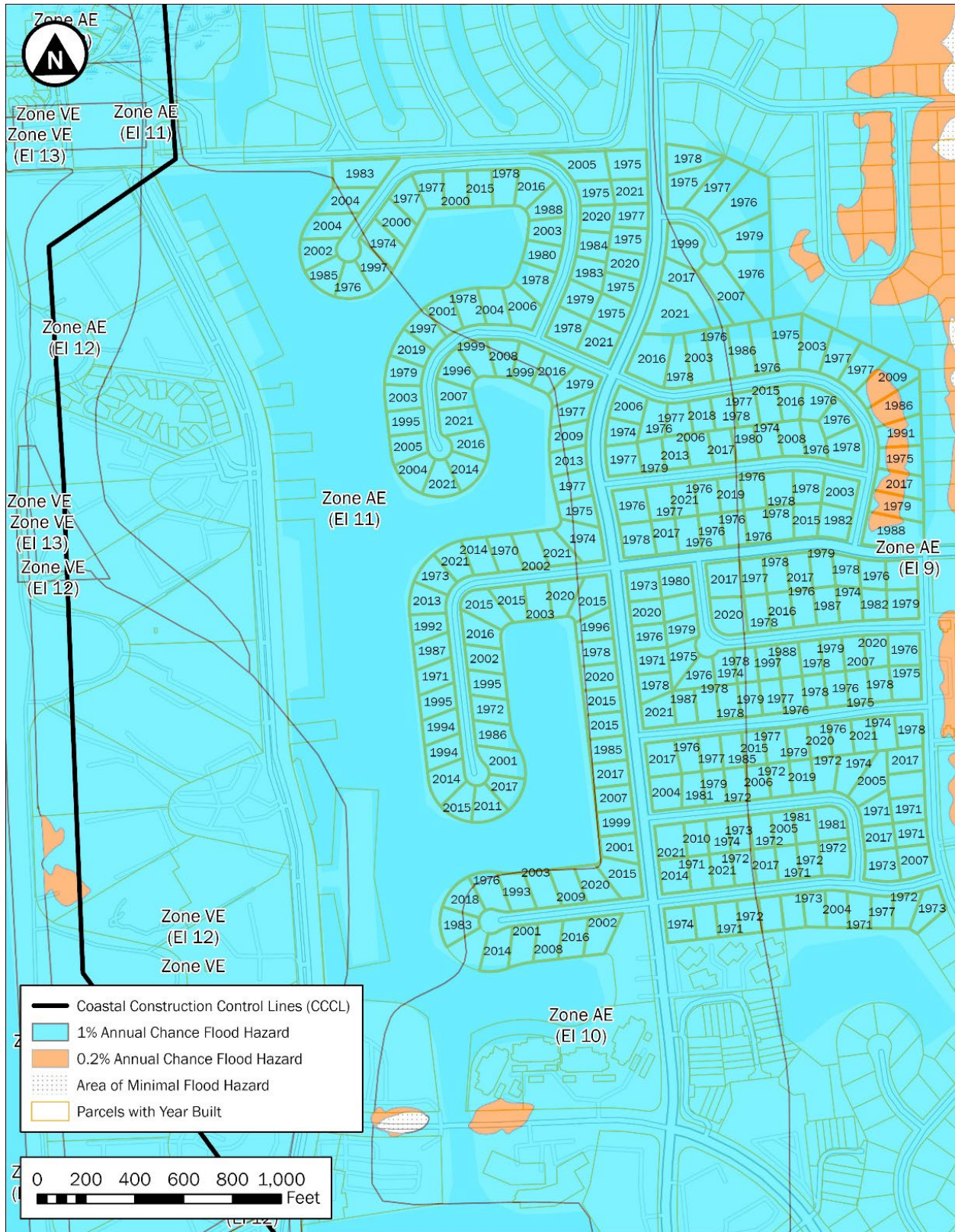


Figure 26: Map of Area of Interest No. 12

The houses in this area are predominantly non-elevated. In rare circumstances where the houses are elevated, areas below the lowest floor are enclosed (either partially or fully). Estimated flood levels were approximately 2 to 3 feet in older slab-on-grade houses based on HWMs recorded by the MAT and interviews with homeowners during site visits. No major structural damage was observed; damage was predominantly related to interior walls and finishes, which had been or were being removed. Figure 27 provides examples of representative single-family houses within Area of Interest No. 12 along with a HWM recorded by the MAT on a 1977 house during the pre-MAT in October.



Figure 27: Representative single-family houses in Area of Interest No. 12 from 1977 to 2020

Building performance in this area was generally as expected with newer buildings having considerably less damage than older buildings. Two primary field observations were the extent and depth of flooding in this area approximately 45 miles south of Hurricane Ian's track and the large size of the houses. The policy data was consistent with field observations as this Area of Interest has the highest average building claim per building (\$154,724) and the second largest average building size (3,029 square feet). The data also correlate with the lack of *elevated buildings* as only 2 of the 108 policies are for *elevated buildings*, both of which were built in the 1970s. On average, post-2010 building claims are one-fifth those of pre-1980 buildings (\$15.19 per square foot versus \$77.02 per square foot). The average building claim for houses built in the 2000s is greater than those in the 1990s, which is unexpected. Aside from verifying 7 of the 19 buildings built in the 2000s have a \$250,000 maximum building claim, a preliminary explanation for the reduced building performance in newer buildings could not be determined. Table 66 through Table 70 provide the number of houses built by decade, the number of insured buildings, and a summary of NFIP building and contents claims by decade as well as by building type (elevated vs non-elevated). The percentages in Table 66 are intended to help illustrate how similar the distribution of buildings built by decade is compared to the distribution of policies by decade.

Table 66: Number of Single-Family Residential Buildings by Decade Built and NFIP Insurance Policies within Area of Interest No. 12

Decade Built	Total Buildings	Percent of All Buildings	Average Size	Buildings w/ Policy	Percent of All Policies	Average Size
Pre 1980	128	46%	2,611	57	53%	2,641
1980s	24	9%	2,953	7	6%	2,948
1990s	17	6%	3,587	7	6%	3,538
2000s	42	15%	3,492	19	18%	3,416
Post 2010	68	24%	3,688	18	17%	3,682
All	279		3,095	108		3,029

Table 67: Hurricane Ian NFIP Building Claims within Area of Interest No. 12 by Decade Built

Decade Built	Active Policies	Average Total Claim	Average Building Claim	Average Size	Average Building Claim per square foot	Average Building Coverage	Quantity Max NFIP Coverage	Quantity Max Building Coverage
Pre 1980	57	\$251,712	\$200,434	2,641	\$77.02	\$238,346	22	1
1980s	7	\$228,762	\$169,636	2,948	\$59.75	\$246,073	3	0
1990s	7	\$105,054	\$76,752	3,538	\$23.46	\$213,500	1	0
2000s	19	\$170,734	\$137,315	3,416	\$42.09	\$242,397	7	0
Post 2010	18	\$59,912	\$52,877	3,682	\$15.19	\$250,000	0	0
All	108	\$194,506	\$154,724	3,029	\$55.98	\$240,603	33	1

Table 68: Hurricane Ian NFIP Contents Claims within Area of Interest No. 12 by Decade Built

Decade Built	Active Policies	Average Total Claim	Average Contents Claim	Average Size	Average Contents Claim per square foot	Average Contents Coverage	Quantity Max NFIP Coverage	Quantity Max Contents Coverage
Pre 1980	51	\$258,074	\$57,311	2,651	\$21.65	\$88,255	13	10
1980s	6	\$266,788	\$68,980	2,932	\$23.91	\$100,000	3	0
1990s	6	\$116,905	\$33,019	3,244	\$10.35	\$91,667	1	0
2000s	19	\$170,734	\$33,419	3,416	\$10.66	\$97,842	2	1
Post 2010	17	\$58,797	\$7,449	3,642	\$2.14	\$100,000	0	0
All	99	\$199,065	\$43,398	3,021	\$15.64	\$93,030	19	11

Table 69: Hurricane Ian NFIP Building Claims within Area of Interest No. 12 by Elevated versus Non-elevated Building Type

Building Type	Active Policies	Average Total Claim	Average Building Claim	Average Size	Average Building Claim per square foot	Average Building Coverage	Quantity Max NFIP Coverage	Quantity Max Building Coverage
Non-elevated	106	\$192,609	\$153,020	3,027	\$55.51	\$247,642	32	1
Elevated	2	\$295,036	\$245,036	3,123	\$80.81	\$250,000	1	0
All	108	\$194,506	\$154,724	3,029	\$55.98	\$240,603	33	1

Table 70: Hurricane Ian NFIP Contents Claims within Area of Interest No. 12 by Elevated versus Non-elevated Building Type

Building Type	Active Policies	Average Total Claim	Average Contents Claim	Average Size	Average Contents Claim per square foot	Average Contents Coverage	Quantity Max NFIP Coverage	Quantity Max Contents Coverage
Non-elevated	97	\$197,086	\$43,262	3,019	\$15.69	\$92,887	18	11
Elevated	2	\$295,036	\$50,000	3,123	\$13.56	\$100,000	1	0
All	99	\$199,065	\$43,398	3,021	\$15.64	\$93,030	19	11

Summary

The 12 Areas of Interest in this Appendix are representative examples of building performance and areas visited by the Hurricane Ian MAT across Lee, Collier, and DeSoto Counties (predominantly Lee). They cover areas as far south as 45 miles from the Hurricane Ian track along the Gulf Coast in Naples (Collier County), 15 miles upstream from the mouth of the Caloosahatchee River in Fort Myers (Lee County), and 6 miles north of Ian Track along the Peace River in Arcadia (DeSoto County). The Areas of Interest also reflect various flood sources and flooding characteristics (depth, velocity, wave action, debris, etc.) as well as construction type (open and closed foundation, single vs multi-story, wood-frame versus masonry, etc.). The flood insurance take up rate is not ideal for every Area of Interest, but across each area there is a representative distribution of age of construction to help evaluate building performance and make recommendations towards improving flood-resistant design and construction requirements.

Figure 28 illustrates the average building claim across all buildings as well as elevated versus non-elevated by Area of Interest. On average, the *non-elevated building* damages are consistently higher. Note there were no *elevated buildings* in Area of Interest No. 2, and Area of Interest No. 12 had two *elevated buildings* out of 108 policies, both of which were built in the 1970s.

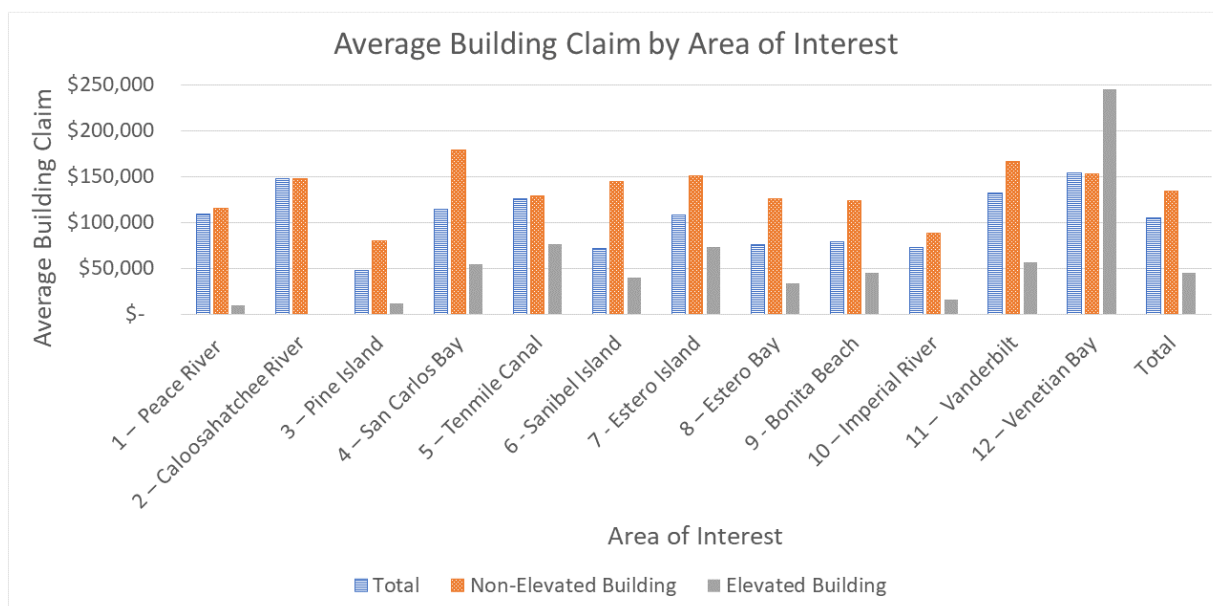


Figure 28: Average building claim in elevated versus non-elevated buildings by Area of Interest

There are outliers in the data to compare across each area. For example, there were no *elevated buildings* in Area of Interest No. 2 - Lee County along Caloosahatchee River. In Areas of Interest No. 1 - DeSoto County along Peace River and No. 2 - Lee County along Caloosahatchee River, 75% or more of the buildings were built before 1980, and the two *elevated buildings* in Area of Interest No. 12 - Venetian Bay were built in the 1970s. However, the overall trends in the data were consistent with field observations related to flood damage.

Age of construction is also an indicator of building performance. The average post-2010 building claim (\$48,091) is more than a third less than the average pre-1980 building claim (\$164,891) and more than 50% less than the overall average building claim (\$105,662). These averages are consistent with field observations. Figure 29

illustrates the average building claim across all buildings as well as *elevated* versus *non-elevated* building by decade. On average the damages in newer buildings are consistently lower.

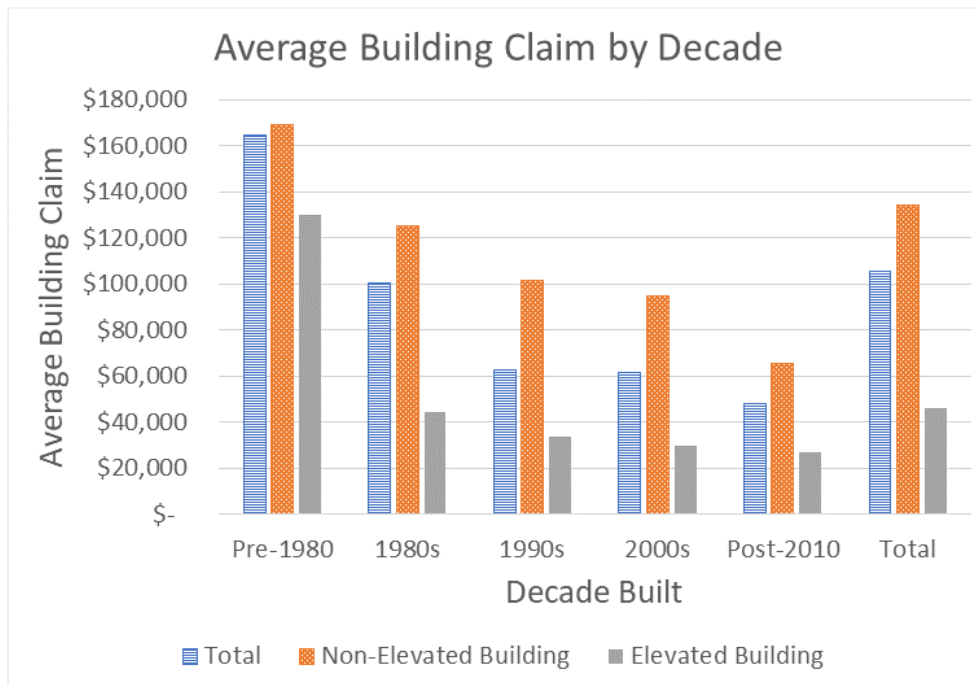


Figure 29: Average building claim in elevated versus non-elevated buildings by decade

Comparing across decades can be challenging because the average size of the buildings varied by area as well as by decade; newer construction was observed to be considerably larger and the claims are consistent with that observation. However, the overall results were consistent with field observations related to flood damage. Building performance, elevation, and foundation type matter and newer construction is a likely indicator of improved building performance. One indicator that is helpful in comparing across the building age of construction and other attributes is the average building claim per square foot. Figure 30 shows the average building claim per square foot in *non-elevated buildings* versus depth of flooding. The results of this graph are consistent with observations in the field, which indicates the claims data are a reasonable supplement to field observations and likely representative of the buildings throughout the areas studied.

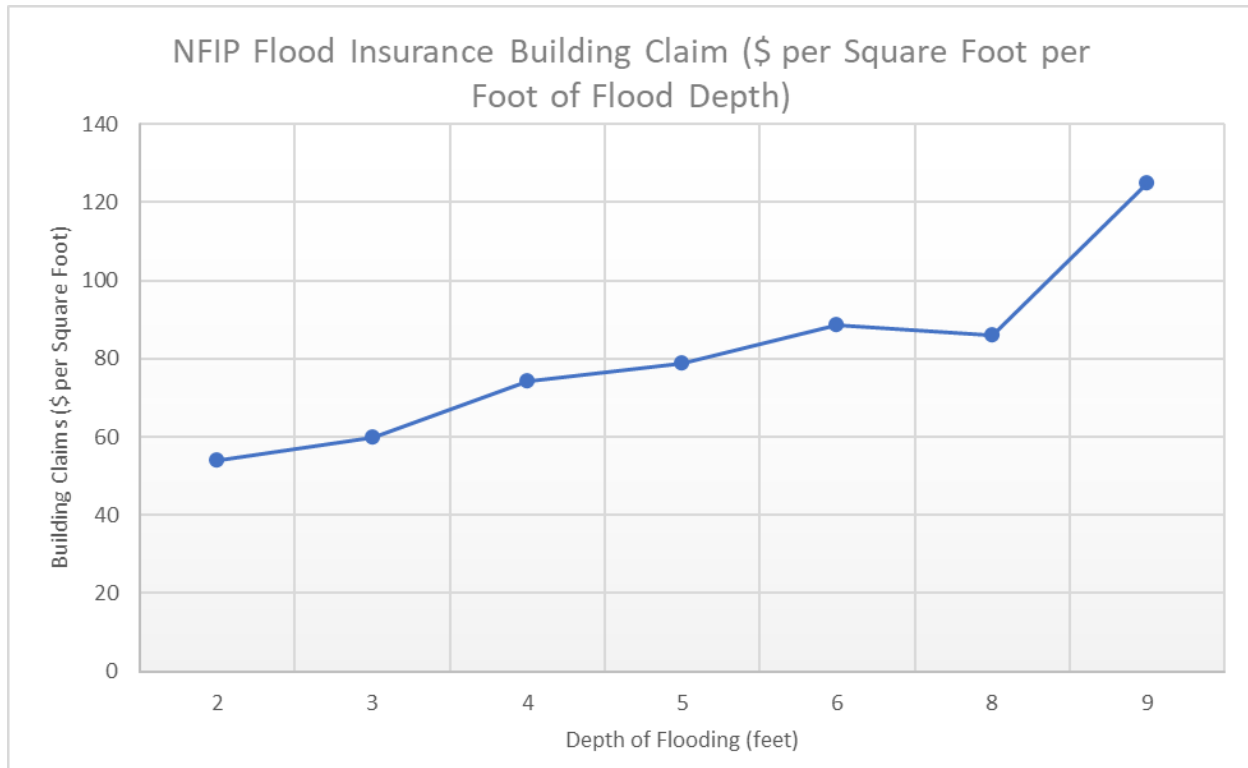


Figure 30: Average building flood insurance claim per square foot in *non-elevated buildings* versus depth of flooding

A few key observations from field notes as well as flood insurance policy and Hurricane Ian claims data include:

- **Elevation and foundation type matter** – The *elevated* versus *non-elevated building* attribute is likely the largest indicator of building performance within the flood insurance policy and claims data. This is consistent with field observations and expected because standard NFIP policy building and contents coverage is relatively limited below the lowest floor of an *elevated building*.
 - *Elevated buildings* constructed above ground level by foundation walls, shear walls, posts, piers, pilings, or columns are generally more likely to have a lowest floor that exceeds the minimum NFIP and building code elevation requirements. Based on discussions with homeowners in the field, most indicated they extended their foundation beyond the minimum requirement to allow for an enclosure as well as provide some additional flood risk reduction. The higher the lowest floor is elevated on a proper foundation with flood damage-resistant materials below it, the less likely there will be flood damage.
 - *Elevated buildings* without structural damage were generally repaired and habitable faster as areas below the lowest floor can typically be repaired while the house is occupied; they are generally simpler to retrofit as well. However, securing the damaged enclosures below the lowest floor and separating areas normally used for parking, storage, and access was a common challenge.
 - The majority of the policies, 94% (132 out of 140), with a maximum building claim (\$250,000) were non-elevated.

- In newer (post-2000 construction), 52 policies have building claims between \$125,000 and \$250,000 (50% to 99% of the maximum building claim allowed); of these, only four (or less than 8%) are *elevated buildings*. Ten of the 52 are post 2010; none of them are *elevated buildings*. These data support field observations that indicate a clear difference in building performance of *elevated buildings* (constructed above ground level by foundation walls, shear walls, posts, piers, pilings, or columns). Note, there are 148 *elevated* and 159 *non-elevated* post-2000 buildings with insurance claims. The average building claim per square foot is \$11.53 in *elevated buildings* versus \$29.15 in *non-elevated buildings*.
- Two of the streets in Area of Interest No. 4 provide a good comparison with approximately the same number of buildings, similar sizes, similar eras of construction, etc. The primary difference between the two streets is that one has 6% *elevated buildings* and the other has 74% *elevated buildings*. The street with more *elevated buildings* had an average building claim less than half the other street; it had less than half as much construction and demolition debris as well. See Area Interest No. 4 Table 23 through Table 25 for more details.
- The lowest 10% of building claims are \$6,400 or less; of these 127 claims, 78 claims, or approximately 60%, are from *elevated buildings*.
- The average building claim per square foot is 2.7 times greater in *non-elevated buildings* (\$72.42 per square foot versus \$26.46). In addition, all but one of the top 10 average building claim per square foot by Area of Interest and building type were associated with *non-elevated buildings* (see Table 71).
- Based on limitations in the standard NFIP flood insurance policy, *elevated buildings* generally create less exposure to the National Flood Insurance Fund.

Table 71: Average Building Claim per Square Foot by Area of Interest and Building Type (sorted in descending order)

Area of Interest	Quantity	Average Building Claim per square foot	Building Type
5 - Tenmile Canal	96	\$74.13	Non-Elevated
8 - Estero Bay	10	\$71.22	Non-Elevated
2 - Lee County along Caloosahatchee River	17	\$69.43	Non-Elevated
11 - Collier County - Vanderbilt	98	\$58.07	Non-Elevated
4 - San Carlos Bay	22	\$57.69	Non-Elevated
1 - DeSoto County along Peace River	1	\$47.22	Non-Elevated
10 - Lee County along Imperial River	130	\$43.50	Non-Elevated

Area of Interest	Quantity	Average Building Claim per square foot	Building Type
6 – Sanibel Island	14	\$38.18	Non-Elevated
5 – Tenmile Canal	7	\$34.17	Elevated
9 – Bonita Beach	15	\$32.99	Non-Elevated
12 – Venetian Bay	51	\$32.46	Non-Elevated
3 – Pine Island	22	\$30.59	Non-Elevated
7 – Fort Myers Beach/Estero Island	4	\$24.34	Non-Elevated
11 – Collier County – Vanderbilt	74	\$22.42	Elevated
7 – Fort Myers Beach/Estero Island	32	\$21.07	Elevated
6 – Sanibel Island	67	\$18.91	Elevated
4 – San Carlos Bay	47	\$18.74	Elevated
9 – Bonita Beach	29	\$17.10	Elevated
8 – Estero Bay	28	\$12.77	Elevated
10 – Lee County along Imperial River	48	\$7.38	Elevated
3 – Pine Island	31	\$5.46	Elevated
1 – DeSoto County along Peace River	1	\$4.11	Elevated
All	1,270	\$57.47	

- **Newer construction had considerably less flood damage, but there is room for improvement** – The average post-2010 building flood insurance claim (\$48,091) is more than three times less than the average pre-1980 building claim (\$164,891) and greater than 50% less than the overall average building claim (\$105,662). While the claims indicate improved performance, there was extensive damage to non-structural building components and non-flood damage-resistant materials that were exposed to flooding (likely not reflected in the claims data because coverage below an *elevated building* is limited). Although *elevated buildings* were more flood-damage resilient than *non-elevated buildings*, finished enclosures that had various elements that did not appear to comply with flood damage-resistant material requirements and had functions beyond the allowable uses of parking, building access, and storage below the lowest floor were prevalent. These common issues reduced building and

community resilience by generating avoidable flood damage and creating extensive debris that resulted in closing and blocking roads, requiring repairs, and unnecessarily tying up limited resources.

- **Trends in *elevated vs non-elevated buildings*** – Although the *elevated* versus *non-elevated building* attribute was likely the largest indicator of building performance, newer buildings are less likely to be *elevated buildings*. In most areas where the claims were analyzed, new *elevated* and *non-elevated buildings* are allowed and the MAT commonly observed newer houses built on fill or stem wall foundations, all of which appeared to be built to the required elevation. The flood insurance policy and claims data reinforced this trend as the ratio of *elevated* to *non-elevated buildings* was greatest in the 1990s. Post-2010 construction is more likely to be a *non-elevated building* type than elevated on foundation walls, shear walls, posts, piers, pilings, or columns. Table 72 provides a ratio of *non-elevated* to *elevated building* by decade built across the 1,270 buildings analyzed for this report. Several factors could be contributing to this trend, including availability of materials, planning and zoning requirements, construction time, construction cost, and/or homeowner preference.

Table 72: Ratio of Non-elevated to Elevated Building by Decade Built

Building Type	Quantity	Pre 1980	1980s	1990s	2000s	Post 2010
Non-elevated	857	377 (88%)	239 (69%)	73 (42%)	101 (49%)	67 (55%)
Elevated	413	49 (12%)	105 (31%)	100 (58%)	104 (51%)	55 (45%)
Ratio	2:1	7.7:1	2.3:1	1:1.4	1:1	1.2:1

- **Increasing average house size** – The increasing average building size has far outpaced the NFIP maximum flood insurance coverage cap. The average building size by Area of Interest ranged from 1,285 square feet to 3,112 square feet. Across all 1,270 policies, the average building size was 2,133 square feet, the average pre-1980 insured house was 1,799 square feet, and the average post-2010 insured house was 2,977 square feet (see Table 75). Based on field observations, the increased size in waterfront properties was significant and especially noticeable.
- **Proximity to track** – While the high water/depth of flooding and building characteristics (age of construction, foundation type, building size, etc.) are key indicators of damage, the proximity to the track is not as evident an indicator. Table 73 provides a summary of average building claims by Area of Interest along with Annual Exceedance Probability based on nearest HWM and the distance from the area to Hurricane Ian’s track. This is consistent with observations in the field as substantial flood damage was observed several miles away from the track. Unlike wind damage where proximity to the track was a key indicator of damage; based on field observations age of construction, building type and size, extent of surge and depth of flooding, and other parameters were more critical indicators of flood damage and building performance. Given the significant size and strength of Hurricane Ian, there was widespread and significant flooding along the coast and up the river and extensive canal systems.

Table 73: Comparison of Hurricane Ian NFIP Claims by Area of Interest and Distance from Track

Location	Quantity	Estimated Annual Exceedance Probability (Mean Recurrence Interval)	Distance from Track (miles)	Average Total Claim
1 – DeSoto County along Peace River	16	No HWM available	6	\$115,660
2 – Lee County along Caloosahatchee River	67	75-year	19	\$171,796
3 – Pine Island	70	140-year	19	\$58,049
4 – San Carlos Bay	106	160-year	25	\$130,645
5 – Tenmile Canal	103	≈85-year	29	\$143,095
6 – Sanibel Island	100	250-year	21	\$82,646
7 – Fort Myers Beach/Estero Island	101	250-year	27	\$115,242
8 – Estero Bay	62	≈180-year	35	\$86,127
9 – Bonita Beach	56	150-year	36	\$85,186
10 – Lee County along Imperial River	235	60-year	39	\$84,856
11 – Collier County – Vanderbilt	246	≈105-year	41	\$160,367
12 – Venetian Bay	108	No HWM available	45	\$194,506
All	1,270			\$123,168

- **Pre-FIRM Construction and Substantial Damage** – Although numerous pre-FIRM buildings were flooded, how many were sufficiently damaged to trigger Substantial Damage is unclear. Based on the insurance policy data for pre- versus post-FIRM construction, the average pre-FIRM (\$148,708) building claim was more than twice the post-FIRM construction average (\$63,020). In addition, 70% of the policies (99 out of 140) with a maximum building claim (\$250,000) were pre-FIRM construction. Table 74 provides a summary of building claims that reached maximum coverage and claims that exceed an estimated market value based on an assumption of \$150 per square foot (note this assumption is for illustrative purposes only and not a FEMA standard value or assumption). Based on the claims data, 3% to 15% of the buildings across these Areas of Interest will be deemed Substantially Damaged, triggering NFIP and building code compliance requirements.

Table 74: Number of Maximum Building Coverage Claims by Area of Interest

Area of Interest	Active Policies	Quantity Max NFIP Coverage	Quantity Max Building Coverage	Quantity Building Claim > Value at \$150 per square foot
1 - DeSoto County along Peace River	16	0	4	0
2 - Lee County along Caloosahatchee River	67	5	8	0
3 - Pine Island	70	0	0	1
4 - San Carlos Bay	106	21	25	4
5 - Tenmile Canal	103	6	11	3
6 - Sanibel Island	100	5	5	1
7 - Fort Myers Beach/Estero Island	101	8	25	19
8 - Estero Bay	62	1	8	4
9 - Bonita Beach	56	5	5	7
10 - Lee County along Imperial River	235	3	11	1
11 - Collier County - Vanderbilt	246	53	56	3
12 - Venetian Bay	108	33	34	0
All	1,270	140 (11%)	192 (15%)	43 (3%)

Finally, Table 75 through Table 78 provide a summary of NFIP building and contents claims by decade as well as by building type (elevated vs non-elevated) for all 12 Areas of Interest combined (similar to what is provided for each Area of Interest throughout this Appendix). To illustrate the difference in new construction, Table 79 and Table 80 compare NFIP building claims for 2000–2022 and for 2010–2022 by building type (elevated vs non-elevated) for all 12 Areas of Interest combined. While the differences in average claims between *elevated* and *non-elevated buildings* are not as extreme in newer construction, there is still a considerable difference.

Table 75: Hurricane Ian NFIP Building Claims for all Areas of Interest by Decade Built

Decade Built	Active Policies	Average Total Claim	Average Building Claim	Average Size	Average Building Claim per square foot	Average Building Coverage	Quantity Max NFIP Coverage	Quantity Max Building Coverage
Pre 1980	426	\$191,378	\$164,891	1,799	\$98.03	\$224,593	89	41
1980s	344	\$117,074	\$100,584	1,863	\$56.85	\$237,892	20	10
1990s	173	\$73,857	\$62,496	2,256	\$27.77	\$244,554	9	0
2000s	205	\$73,898	\$61,791	2,675	\$23.09	\$247,078	18	1
Post 2010	122	\$54,894	\$48,091	2,977	\$17.50	\$250,000	4	0
All	1,270	\$123,168	\$105,662	2,133	\$57.47	\$236,985	140	52

Table 76: Hurricane Ian NFIP Contents Claims for all Areas of Interest by Decade Built

Decade Built	Active Policies	Average Total Claim	Average Contents Claim	Average Size	Average Contents Claim per square foot	Average Contents Coverage	Quantity Max NFIP Coverage	Quantity Max Contents Coverage
Pre 1980	294	\$209,007	\$38,265	1,898	\$20.48	\$58,916	29	115
1980s	249	\$115,867	\$22,781	1,878	\$12.71	\$71,564	9	53
1990s	151	\$74,217	\$13,017	2,258	\$5.40	\$79,524	6	5
2000s	183	\$78,448	\$13,562	2,707	\$4.95	\$89,464	7	2
Post 2010	86	\$63,757	\$9,651	2,933	\$3.83	\$93,847	0	0
All	963	\$126,007	\$23,053	2,195	\$11.67	\$74,342	51	175

Table 77: Hurricane Ian NFIP Building Claims for all Areas of Interest by *Elevated* versus *Non-elevated Building Type*

Building Type	Active Policies	Average Total Claim	Average Building Claim	Average Size	Average Building Claim per square foot	Average Building Coverage	Quantity Max NFIP Coverage	Quantity Max Building Coverage
Elevated	413	\$50,287	\$46,033	2,189	\$26.46	\$66,641	8	11
Non-elevated	857	\$158,291	\$134,398	2,106	\$72.42	\$51,422	132	41
All	1,270	\$123,168	\$105,662	2,133	\$57.47	\$236,985	140	52

Table 78: Hurricane Ian NFIP Contents Claims for all Areas of Interest by *Elevated* versus *Non-elevated Building Type*

Building Type	Active Policies	Average Total Claim	Average Contents Claim	Average Size	Average Contents Claim per square foot	Average Contents Coverage	Quantity Max NFIP Coverage	Quantity Max Contents Coverage
Elevated	346	\$49,025	\$5,077	2,216	\$3.09	\$79,545	4	18
Non-elevated	617	\$169,177	\$33,133	2,184	\$16.48	\$71,424	47	157
All	963	\$126,007	\$23,053	2,195	\$11.67	\$74,342	51	175

Table 79: Hurricane Ian NFIP Building Claims for all Areas of Interest by *Elevated* versus *Non-elevated Building Type Post-2000 Construction*

Building Type	Active Policies	Average Total Claim	Average Building Claim	Average Size	Average Building Claim per square foot	Average Building Coverage	Quantity Max NFIP Coverage	Quantity Max Building Coverage
Elevated	159	\$30,021	\$28,745	2,626	\$11.52	\$247,320	1	1
Non-elevated	168	\$101,624	\$83,117	2,940	\$29.98	\$248,870	21	0
All	327	\$66,608	\$56,680	2,788	\$21.00	\$248,167	22	1

Table 80: Hurricane Ian NFIP Contents Claims for all Areas of Interest by *Elevated* versus *Non-elevated Building Type Post-2010 Construction*

Building Type	Active Policies	Average Total Claim	Average Building Claim	Average Size	Average Building Claim per square foot	Average Building Coverage	Quantity Max NFIP Coverage	Quantity Max Building Coverage
Elevated	55	\$29,175	\$27,088	2,705	\$10.40	\$250,000	1	0
Non-elevated	67	\$76,007	\$65,332	3,201	\$23.32	\$250,000	3	0
All	122	\$54,894	\$48,091	2,977	\$17.50	\$250,000	4	0

All documents were prepared with accessibility and compliance with Section 508 of the Rehabilitation Act of 1973 in mind. For further information or clarification regarding items such as technical drawings or maps, please contact the FEMA Building Science Helpline at FEMABuildingScienceHelp@fema.dhs.gov or 866-927-2104.