



AN EYE ON TEXAS COASTAL BUILDING CODES

IBHS Survey of Building Codes in Coastal Texas Communities



October 2019

The Insurance Institute for Business & Home Safety (IBHS) would like to thank the Texas building code officials and the local code administrators who responded to our Texas Coastal Code Questionnaire. We recognize their hard work and dedication.

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IBHS

SURVEY OF COASTAL TEXAS BUILDING CODES

OVERVIEW

The Insurance Institute for Business & Home Safety (IBHS) is a nonprofit organization that conducts scientific research to identify and promote effective actions to strengthen homes, businesses, and communities against losses due to natural disasters. As a part of this mission, IBHS supplies technical guidance to inform and improve model building codes, advocates for timely adoption of modern building codes and standards, and encourages uniform enforcement of these codes.

Texas has consistently scored in the bottom 25% in the IBHS [Rating the States](#) report, which rates statewide code and enforcement activities every three years. The state of Texas has a significant risk of damaging hurricane winds; there have been 49 landfalling hurricanes since 1900, and any given 50-mile stretch of Texas coastline will experience a hurricane, on average, once every 6 years.

In 2019, IBHS surveyed the code enforcement offices of 46 coastal communities in Texas. Of the 46 jurisdictions contacted, 31 responded to

the IBHS survey. The survey covered jurisdictions with a population of 10,000 or more, covering approximately 90% of the population along the Texas coast. Approximately one-third of the total population of Texas, over 7 million people, live in vulnerable coastal areas.

This report on the results of our survey highlights the importance of mitigation and resilience, and the need to stimulate adoption and enforcement of stronger building codes. The Texas code enforcement authorities and homeowners, particularly those most vulnerable in coastal areas, can benefit from the recommendations in this report.

The importance of strong, well-enforced building codes was clearly demonstrated in 2017 and 2018 as several devastating hurricanes (Harvey, Irma, Maria, and Michael) made landfall in the United States and caused billions of dollars in damage, disrupted countless families, homes, and businesses, and caused loss of life.

While no single meteorological, physical, or economic attribute is to blame for the damage caused by these events, evidence continues to mount that strong, well-enforced building codes reduce loss, limit displacement, and promote a quicker recovery.

This report focuses on the following factors that influences losses:

- Whether residential building codes have been adopted and enforced throughout communities in coastal areas of Texas
- High-wind design and construction standards applied in hurricane-prone regions, roofing and re-roofing construction and inspection requirements, and roofing contractor licensing

While this report describes the current state of code adoption and enforcement in the coastal communities of Texas, it should not be forgotten that the rest of the state is also subject to a variety of perils such as hail, tornadoes, thunderstorm winds, and wildfires.

To fully understand the building code environment in Texas, we examined the regulatory framework, administration, and authority of the local governments. We also examined the requirements of the Texas Windstorm Insurance Association (TWIA)¹, which is the state's insurer of last resort for Texas coastal property owners.



Figure 1. Two examples of damage to older versus newer construction after Hurricane Harvey.

TEXAS

Texas is the second largest state in the United States in area (268,820 sq mi) and population (28,701,845). The state's 370-mile-long² coastal region lies along the Gulf of Mexico. According to the US Census Bureau, from 2000 to 2015 the number of people living in coastal areas in Texas increased by 800,000, from 8.3 million in 2000 to 9.1 million in 2015. As of 2015, approximately one-third of the total population of Texas lived on or near the Gulf coast. Houston and suburban Harris County is a major population center³ located close to the coast and is extremely vulnerable to hurricanes.

Texas is also prone to all types of severe weather. Hail and flooding resulting from storms are among the most common and destructive events throughout Texas. Accordingly, building codes, uniform construction standards, and mitigation are topics worth discussing as they contribute to the resiliency of structures by reducing risk and improving the ability of communities to recover from extreme events, which helps to support stability and quality of life.

By the Numbers

268,820

Number of square miles, making Texas the second largest state in the United States

28,701,845

Population

370

Miles of coastline

800,000

Increase in population from 2000 to 2015

49

Number of hurricanes between 1900 and 2018

Tropical Cyclone Strikes by County

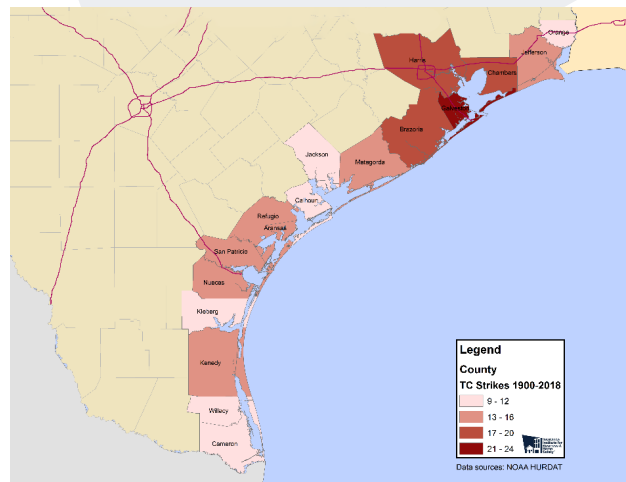


Figure 2. Texas hurricane landfalls 1900–2018.

Costliest Hurricanes

Three of the costliest and most destructive hurricanes that affected the continental United States in recent years caused substantial damage, including loss of life, in Texas:

- Hurricane Rita (2005)
- Hurricane Ike (2008)
- Hurricane Harvey (2017)

TEXAS GOVERNMENT AND REGULATORY CONDITIONS

The regulatory framework and laws that govern design and construction of residential one- and two-family dwellings in the state is a key factor in this report. In this report, Texas cities that have incorporated are referred to as municipalities. All other areas are unincorporated and governed at the county level.

There are two major categories of municipalities in Texas:

- Home rule
- General law

Home rule municipalities are cities with a population of more than 5,000 that have adopted a home rule charter. Home rule also allows a community to manage their own affairs with minimal restrictions by the state government.

General law municipalities are limited to actions authorized by statute through the state legislature. General law municipalities are incorporated as Type A, B or C. These types are based on population and other factors related to their status and the form of the municipal government. About 75% of Texas municipalities are general law cities.

Texas counties have limited regulatory authority and are restricted to actions authorized under state law like a general law municipality. In many ways, a county functions as a local extension of the state government.

TEXAS BUILDING CODES

In 2001, the Texas legislature adopted the International Residential Code® (IRC) and the National Electrical Code® (NEC) as the standard building and safety codes for residential⁴ construction in Texas. However, Texas does not mandate or enforce a statewide residential building code on other aspects of construction⁵. A significant exception is the enforcement of building code provisions by the Texas Department of Insurance (TDI) for property insurance underwritten by the Texas Windstorm Insurance Association (TWIA).

Under current state statutes on local government and land use regulations, municipalities can choose to adopt any edition of the IRC for construction, alteration, remodeling, and repair of residential

Local government authority and jurisdiction in Texas is regulated by the state constitution and statutory limitations. Generally, counties in Texas have limited regulatory authority under state law. Municipal government can have one of two forms: general law or home rule. General law municipalities have similar restrictions to those at the county level. However, home rule municipalities are more autonomous and can enact local ordinances, as long as they do not conflict with the state constitution or statutes. Unlike some other states, Texas does not allow for consolidated city-county governments.

In June 2017, a law took effect allowing a county to use its current enforcement authority if a builder does not provide notice that a home shows compliance with the state residential building code. Previous law gave counties the authority to mandate that all homes in unincorporated areas be built to code, have a minimum of three independent third-party code inspections, and receive notice of compliance, but did not give clear enforcement authority.

Additionally, recent legislation allows counties with a population over 250,000, or those adjacent to such counties, to adopt and enforce a local building code.

structures. General law cities are subject to all state laws, so a statewide building code law would have affected these cities if it had existed. Unfortunately, there is no coherent approach to residential code adoption and enforcement throughout the state. There is also wide variation in adoption and enforcement among the home-rule incorporated cities and unincorporated areas of Texas counties.

In 2017, the Texas legislature enacted a law that requires builders in unincorporated areas of counties with more than 250,000 residents to provide an inspection report to the county showing that their construction complies with the building code. Failure to provide this documentation to the county could result in prosecution of the builder.

BUILDING CODES FOR HIGH-WIND CONSTRUCTION

Building codes are intended to prevent deaths and reduce injuries. The damage reduction that results from the adoption and enforcement of a strong building code helps to keep people in their homes and businesses following a natural disaster. This reduces the need for public and private disaster aid and preserves the built environment⁶.

The *International Residential Code*® (IRC) is a reference model building code developed by the International Code Council (ICC) specifically for one- and two-family structures. The IRC is the standard referenced throughout this report. The IRC uses a prescriptive approach that specifies requirements and methods of construction, addresses all aspects of residential construction, and is the backbone for most residential building codes in the United States. The code includes provisions for moderate- to high-wind conditions (< 130 mph) that are experienced in most parts of the United States. Buildings in regions that can experience winds greater than 130 mph fall outside the prescriptive limits of the IRC, so other codes or standards must be used for design and construction in those areas.

One code used in these high-wind areas is the International Building Code® (IBC®). The IBC is primarily a performance code. Performance codes require that a structure meet the requirements that apply to the design of all buildings, including residential one- and two-family dwellings. In addition to the IBC, any of the following standards can be used in areas that might experience wind speeds greater than 130 mph:

- ICC 600, Standard for Residential Construction in High Wind Regions
- AWC⁷ 2018 Wood Frame Construction Manual (WFCM)
- ASCE/SEI 7-16 Minimum Design Loads and Associated Criteria for Buildings and Other Structures
- AISI⁸ S230-15, Standard for Cold-Formed Steel Framing—Prescriptive Method for One- and Two-Family Dwellings

TEXAS WINDSTORM INSURANCE ASSOCIATION

The Texas Windstorm Insurance Association (TWIA) is a nonprofit insurance organization administered

by the Texas Department of Insurance (TDI). TWIA supplies windstorm and hail property insurance coverage to property owners in coastal areas of Texas who are declined by open market insurance companies. The 2006 editions⁹ of the International Building Code (IBC) and the International Residential Code (IRC) are the designated codes for TWIA coverage.

Structures in 14 counties that border the Texas Gulf coast and 5 cities located within Harris County are eligible for TWIA coverage if the buildings conform to the designated building codes. All the jurisdictions surveyed for this study are in whole or in part within TWIA-designated high-wind areas.

Although high-wind design and construction requirements in these areas exceed the prescriptive requirements outlined in the IRC, IRC Section R301.2.1.1 references guidelines appropriate for designated high-wind areas (including IBHS design standards). To obtain TWIA coverage, the TDI-approved inspector or engineer must inspect the structure for compliance with high-wind construction guidelines referenced in Section R301.2.1.1 of the 2006 IRC⁹ or Section 1609.1.1 of the IBC, including Texas Revisions.

Under the TWIA program, residential one- and two-family dwellings can be constructed using an engineered design or one of the high-wind standards referenced in Section R301.2.1.1 of the 2006 Texas Revisions to the IRC and the 2006 Texas Revisions to the IBC (effective January 1, 2008).

FORTIFIED HOME™

FORTIFIED Home™ is an IBHS program designed to give new and existing homeowners options for improving the performance of their properties against natural hazards, including high wind, beyond the requirements of the IRC. Communities in coastal Texas could benefit by incorporating the beyond-code features of FORTIFIED Home when repairing, rebuilding, or renovating their homes—or, at a minimum, the requirements of the FORTIFIED Roof™ program for a sealed roof deck. By sealing the seams or gaps between the deck sheathing, the sealed roof deck system is designed to keep water out of the house if the primary roof covering blows off during a storm. The FORTIFIED Home standards are proven effective in creating greater resistance to wind and preventing wind-driven rain from getting inside the structure.

METHODOLOGY

IBHS surveyed the code enforcement offices of 46 local government entities along the Texas coast. Of the 46 jurisdictions contacted, 28 responded to first call, and 3 additional incorporated jurisdictions responded to the second and final call. The survey sample covered jurisdictions with a population of 10,000 or more and accounted for approximately 90% of the population in the coastal areas.

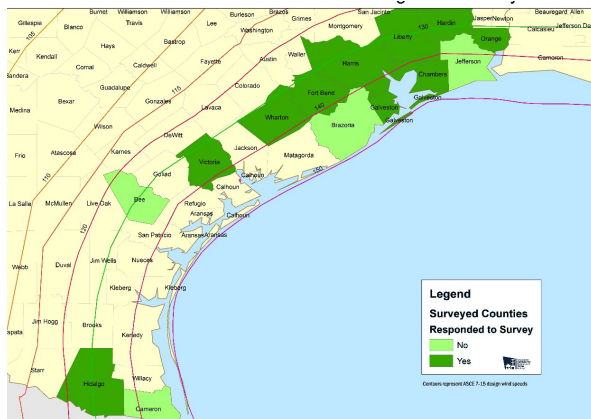


Figure 3. Counties included in the Texas Building Code Survey. Also shown are the ASCE 7-15 design wind speed contours.

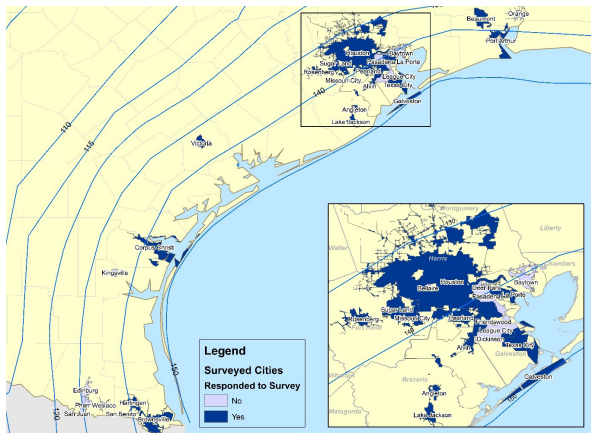


Figure 4. Incorporated cities included in the Texas Building Code Survey. Also shown are the ASCE 7-15 design wind speed contours.

The jurisdictions included counties and incorporated cities directly on the Gulf coast and stretching inland within the 130 mph (V_{ult})¹⁰ wind contour line (green line in Figure 3 and Figure 4). The 130-mph contour line was selected because the 2015 and 2018 editions of the IRC identify regions with wind speeds of 130 mph or greater as *wind design required areas*. This means residential dwellings in those regions fall outside the scope of the IRC for prescriptive wind design and must be designed or constructed according to [one of the codes for high-wind construction](#).

The survey questions focused on procedures related to high-wind design and construction along with specific elements of construction related to permitting, roofing, and re-roofing work. We also tried to assess the degree of cooperation between the TWIA program and the local code enforcement authorities. The TDI requires that any property insured under TWIA conform to the high-wind codes and is an important player in promoting strong wind-resistant construction methods, public safety, and financial protection through the TWIA certification program.

SURVEY RESULTS

The IBHS *Rating the States: 2018*¹¹ report gave Texas a score of 34 out of 100 points. Only 3 states had lower scores. The *Rating the States* report focused on the need for adoption and enforcement of a strong statewide building code, as well as licensing and training for the building officials who administer various codes in the state.

The survey for this report collected and analyzed data from 31 of the 46 coastal communities in Texas. The results presented make it clear that additional improvement in the building code laws and requirements are needed to reduce the impact of natural or man-made disasters throughout the built environment in coastal Texas.

While many jurisdictions in Texas have adopted and enforce a building code, adoption and enforcement of residential building codes is not uniformly applied. Some jurisdictions rely on the TDI or TWIA Windstorm Inspection Program certificate of compliance for code enforcement.

BUILDING CODE ADOPTION

The incorporated jurisdictions that responded indicated that they have adopted and enforce some version of the IRC. However, only 2 of the 10 unincorporated counties that responded have adopted a building code and have some form of a regulatory system.

Harris and Galveston counties, with a combined population of 1,796,357, have adopted and enforce the IRC 2006 building code. The other 8 counties that responded, with a combined population of 841,145, had no residential code.

BUILDER NOTICE ON INSPECTION AND COMPLIANCE

A 2017 state law requires builders in unincorporated areas of certain counties to provide an inspection report to the county that shows their projects comply with the building code. However, because the inspection report is performed by a party hired by the builder, the requirement could create a conflict of interest scenario and does not provide adequate protection and safety like an active code adoption and enforcement program would. Adequate uniform code enforcement affords communities a high degree of improved building safety through application of suitable building codes.

HIGH-WIND DESIGN AND CONSTRUCTION

When asked if there was any specific or mandatory requirement related to high-wind design and construction in a jurisdiction, 20 of 31 jurisdictions reported that they have mandatory requirements related to high-wind design and construction as specified in the IRC.

Also, of the jurisdictions that responded, many did not specify what methods or standards were being used for high-wind construction. It is important to point out the significance of this question, because all areas targeted for this survey were located, at least in part, within high-wind zones that require structures be built to withstand high wind loads, which exceed the prescriptive scope of the IRC.

PERMIT REQUIREMENTS FOR CONSTRUCTION

We asked the following questions to assess whether a jurisdiction was using a permitting process for new construction or renovations.

1. Are building permits currently required for new residential construction?
2. Are building permits currently required for residential construction renovations or additions?
3. Are building permits currently required for re-roofing?

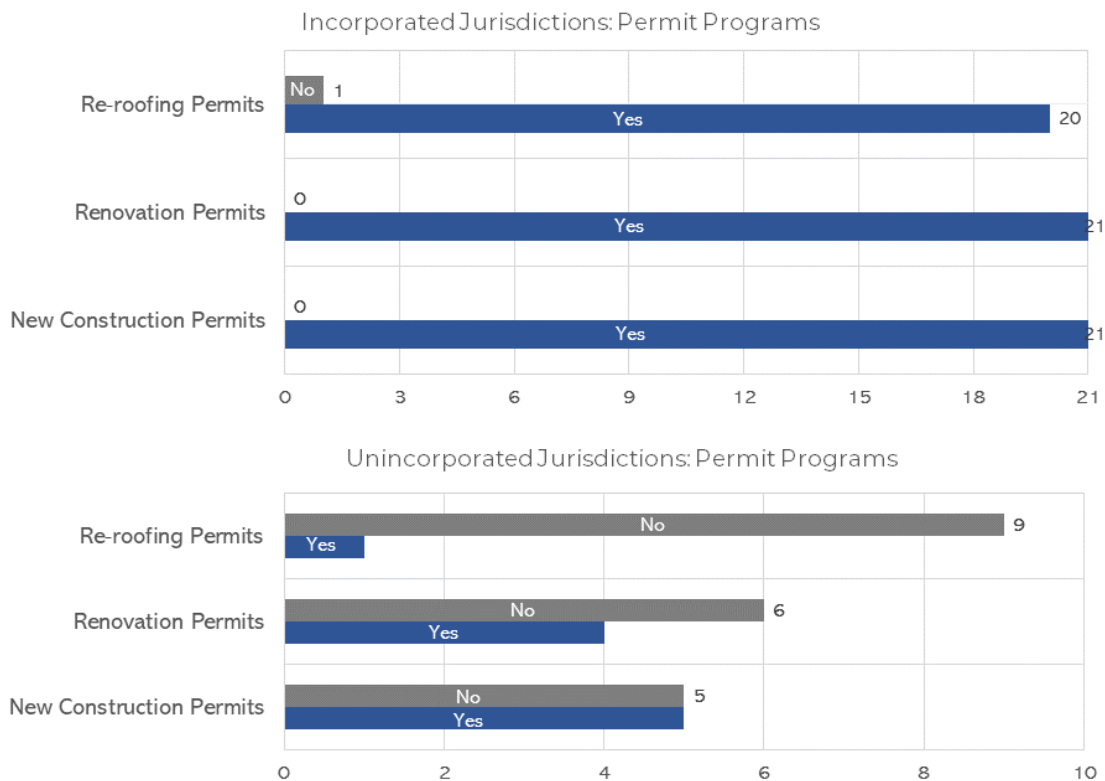


Figure 5. Survey responses for (top) incorporated jurisdictions and (bottom) unincorporated jurisdictions that require permits for construction or roofing. Yes responses are shown by the blue bars and No responses are shown by the gray bars.

As we move from the new residential construction category to renovations, additions and re-roofing, the percentage of total incorporated jurisdictions requiring permits remains high—100% (21 of 21) and 95% (20 of 21), respectively—while for unincorporated jurisdictions, the percentages for permit programs for renovations and re-roofing are 40% (4 of 10) and 10% (1 of 10). The results of the survey indicate renovations and re-roofing at the county level does not get the same level of attention as new construction. Permitting and proper oversight and inspection of all construction is important to ensure re-roofing and other structural changes comply with code requirements.

INSPECTION OF NEW ROOF CONSTRUCTION

Inspections play a critical role in ensuring building code requirements and standards are properly implemented and enforced. We asked the following questions to assess roof-related inspections.

- 4a. Is roof sheathing inspected for new construction?
- 4b. Are new roof sheathing attachments inspected in your jurisdiction?
- 4c. Are roof covering installations inspected in your jurisdiction?

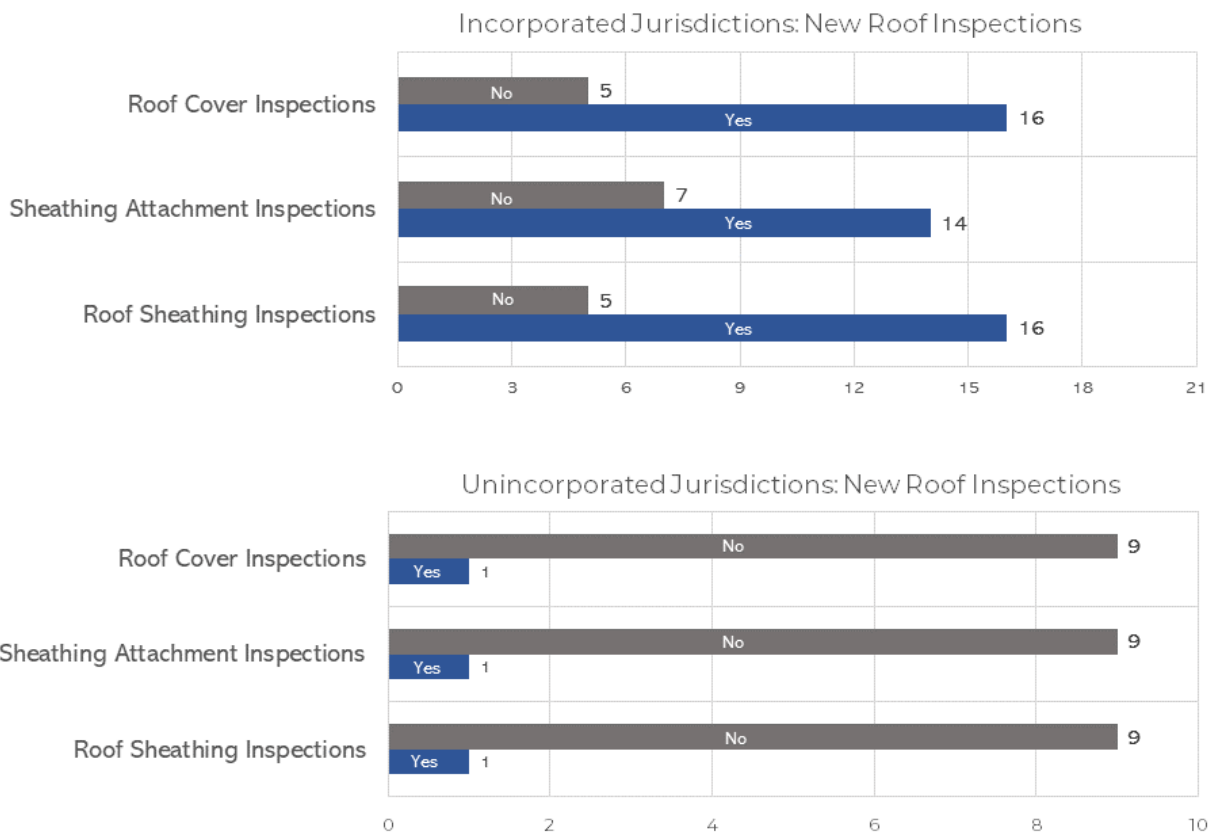


Figure 6. Survey responses for (top) incorporated jurisdictions and (bottom) unincorporated jurisdictions that require inspections for new roofing activities. Yes responses are shown by the blue bars and No responses are shown by the gray bars.

Based on the responses received from the jurisdictions, it appears that 50% or less of the new roofing projects are inspected; however, this is dominated by a lack of inspections in unincorporated counties with only Harris County requiring inspections. Most incorporated cities do require a degree of roofing inspection.

INSPECTION OF RE-ROOFING CONSTRUCTION

We asked the following questions about code enforcement and inspections for re-roofing:

- 5a. Is roof sheathing inspected during re-roofing?
- 5b. Are attachments brought up to code?
- 5c. Is roof covering installation and attachment inspected at re-roofing?

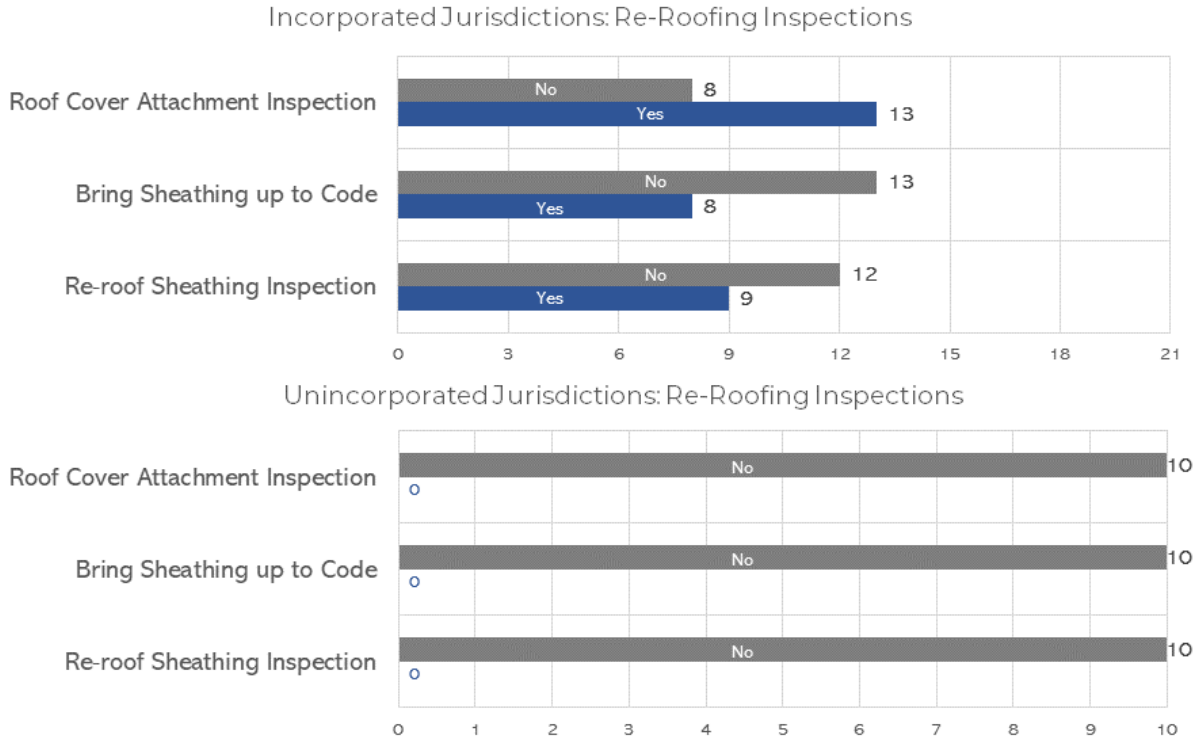


Figure 7. Survey responses for (top) incorporated jurisdictions and (bottom) unincorporated jurisdictions that require inspections when re-roofing. Yes responses are shown by the blue bars and No responses are shown by the gray bars.

Data collected from the Texas coastal jurisdictions point to major deficiencies in inspections of installation and attachment of roof covering systems during re-roofing projects. While conducting inspection of new roof coverings is critical, so is the re-roofing construction. This represents a challenge regarding updating the building stock to meet new code requirements.

BUILDING OFFICIAL CERTIFICATION AND TRAINING

We also asked jurisdictions whether they require training and certification for building officials or inspectors?

Forty-one percent of the jurisdictions surveyed responded that they did not require training and certification for their building officials and inspectors. Within the surveyed jurisdictions, only one county required building inspector training (Orange County). However, 16 of 18 incorporated cities required inspector training, again highlighting the disparity between incorporated cities and the unincorporated regions within coastal counties.

Jurisdictions Requiring Building Inspector Training

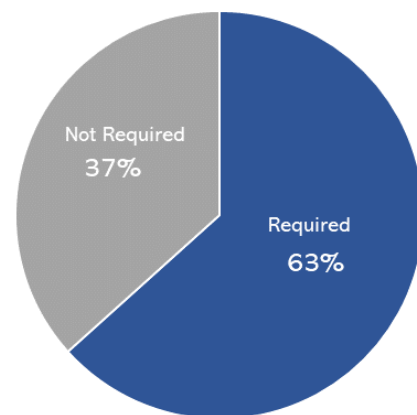


Figure 8. Percent of responding jurisdictions requiring training for building inspectors.

CONTRACTOR LICENSING AND REGISTRATION REQUIREMENTS

To assess the licensing and registration for general contractors and roofers, we asked the following:

- 6a1. Are general contractors required to be licensed or registered?
- 6a2. Are there competency requirements for general contractors?
- 6b. Are roofing contractors required to be licensed or registered?
- 7. Are there continuing education requirements for roofing contractors?

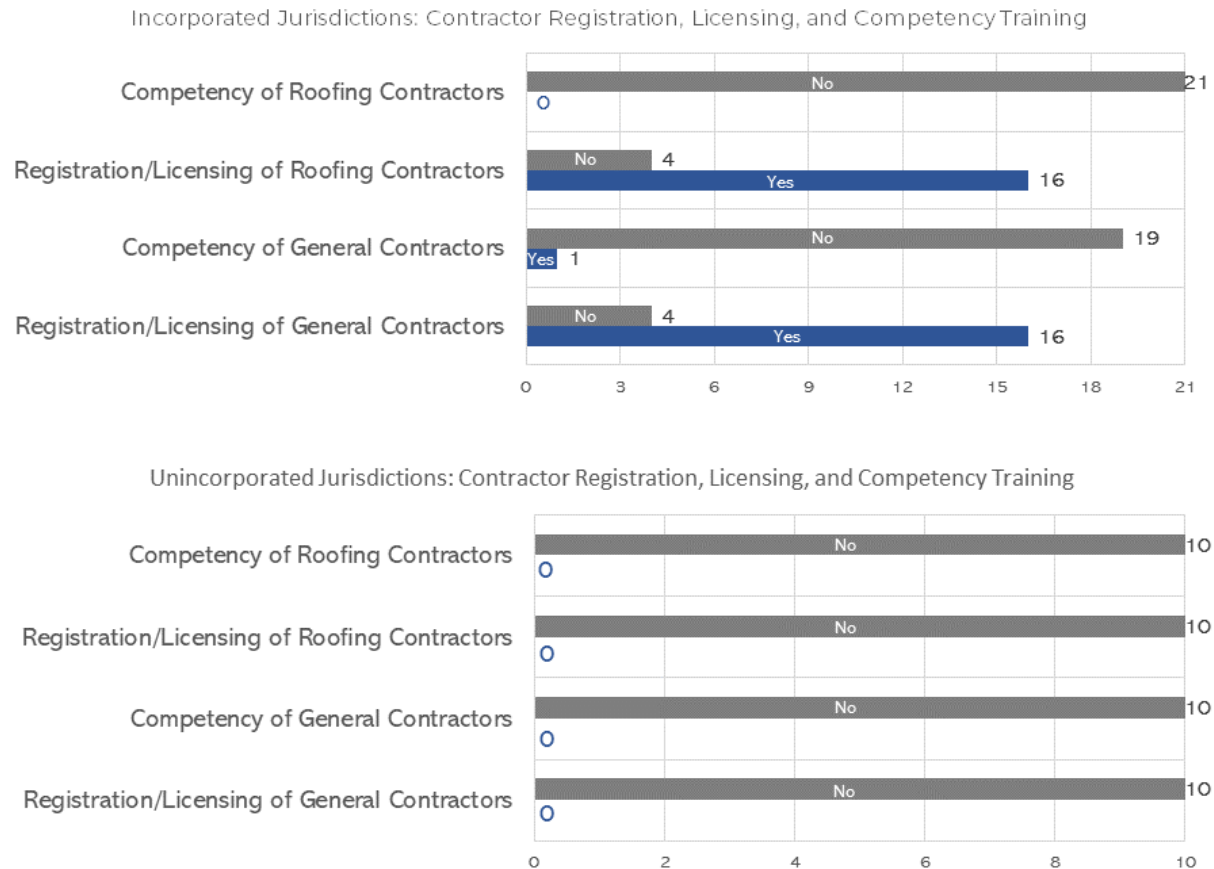


Figure 9. Number of incorporated jurisdictions (top) and unincorporated jurisdictions (bottom) requiring registration and/or licensing of building contractors. Yes responses are shown by the blue bars and No responses are shown by the gray bars.

Just over half of jurisdictions surveyed require registration of general contractors and roofing contractors. However, competency and training requirements are minimal or nonexistent.

COORDINATION BETWEEN LOCAL BUILDING DEPARTMENTS AND THE TDI

We asked if there was any coordination between the local building department and the TDI as it relates to TWIA program. Twenty-two of the 28 jurisdictions do not coordinate with TDI's TWIA certification program.

Enforcing provisions of the code is the responsibility of the building inspector or official who has the final authority to rule on all code conformance matters and issue the certificate of occupancy. For example, there must be coordination, scheduling, sequence and inspection of work conducted on fire blocking, concealed pipes, wiring, ducts and vents, along with framing and structural systems. This makes a strong case for a well-coordinated approach and closer partnerships between the local building official's office and the TWIA wind mitigation program inspector.

LOCAL JURISDICTION RATINGS

The jurisdictions were grouped according to the following criteria to understand the overall quality and scope of code, enforcement, permitting, and licensing across the surveyed area.

Table 1 describes the criteria for each group and the relative score. Table 2 provides a list of jurisdictions that did not respond to our survey requests.

Rating	Criteria for Rating
Top Performer	Meets Good Performer criteria AND requires roofing/reroofing inspections and licensed roofers.
Good Performer	Adopted a code, references high-wind requirements, requires permits, training for code enforcement officers, and requires licensed general contractors.
Average	Adopted a code but does NOT meet all criteria in the Good Performer.
No Code	No adopted building code.

TABLE 1

Type	Jurisdiction	County (if municipality)	Single-Family Housing Units ¹	Population ¹
City	Alvin	Brazoria	5,554	25,500
City	Beaumont	Jefferson	34,469	117,729
City	San Benito	Cameron	5,975	24,442
City	Victoria	Victoria	17,632	66,139
City	Angleton	Brazoria	5,285	19,245
City	Brownsville	Cameron	38,905	182,110
City	Galveston	Galveston	17,666	49,443
City	Lake Jackson	Brazoria	8,420	27,407
City	Missouri City	Fort Bend	22,373	71,732
City	Pearland	Brazoria	32,369	106,238
City	Port Arthur	Jefferson	17,168	54,913
City	Rosenberg	Fort Bend	7,871	34,908
City	Texas City	Galveston	13,698	46,811
City	Corpus Christi	Nueces	85,819	320,050
City	Dickinson	Galveston	5,374	19,583
City	Deer Park	Harris	9,480	33,517
City	Friendswood	Galveston	11,691	38,272
County	Galveston		7,882	36,202
City	Houston	Harris	423,049	2,240,582
City	Harlingen	Cameron	26,262	65,467
County	Harris		450,395	1,760,156
City	La Porte	Harris	13,723	35,371
City	Sugar Land	Fort Bend	30,140	86,777
County	Chambers		7,596	22,822
County	Fort Bend		127,129	402,385
County	Hardin		11,430	32,314
County	Hidalgo		79,190	251,538
County	Liberty		12,544	49,207
County	Orange		12,260	39,249
County	Victoria		7,363	24,994
County	Wharton		6,506	18,635

TABLE 2

Type	Jurisdiction	County (if municipality)	Single-Family Housing Units ¹	Population ¹
City	Alamo	Hidalgo	7,553	19,679
City	Baytown	Harris	27,883	76,804
County	Bee		10,731	31,861
City	Bellaire	Harris	7,055	18,797
County	Brazoria		11,159	79,794
County	Cameron		12,188	33,854
City	Edinburg	Hidalgo	28,599	98,280
County	Jefferson*		8,164	20,527
City	Kingsville	Kleberg	11,008	25,482
City	League City	Galveston	36,152	104,903
City	Orange	Orange	9,316	19,072
City	Pasadena	Harris	52,325	152,281
City	Pharr	Hidalgo	23,886	79,487
City	San Juan	Hidalgo	10,200	36,981
City	Weslaco	Hidalgo	15,860	40,358

Table 1. Jurisdiction rating groups for those that participated in the IBHS survey. Within each performance group, jurisdictions are listed alphabetically.

Table 2. Jurisdictions that did not respond by October 4, 2019, to the final survey request for this study. Data for county jurisdictions represents unincorporated areas only.

*Note: Jefferson County responded after the deadline and they are not included in the results presented here. This jurisdiction has elected to use a third-party building inspection and compliance service.

RECOMMENDATIONS

Based on the findings from our survey, IBHS recommends the following changes to improve the resiliency of residential construction in Texas:

- Adoption of a high-wind building code by local jurisdictions in vulnerable areas, along with inspection and enforcement of the code's requirements.
- Establish a coordinated approach and close partnerships between the local building officials and the TWIA/TDI wind mitigation program inspector. Because buildings are made of many components and assemblies that work as a system, authorities conducting oversight of construction need to work closely to ensure compliance.
- The roof is the first line of defense for a home experiencing strong winds and damage often begins here. Inspections of roof sheathing and cover for both new and re-roofing construction should be requirements.
- Train and certify building officials to determine compliance with the building code. This will help ensure professional competency and uniformity of enforcement.

ACKNOWLEDGEMENTS

The Insurance Institute for Business & Home Safety (IBHS) would like to thank the Texas building officials and the local code administrators who responded to our Texas Coastal Code Questionnaire. We recognize their hard work and dedication.

¹ The most recent list of participating insurers can be found at <https://www.twia.org/member-company-participation>.

² Texas State Historical Association

³ The 2010 census ranked the Houston–The Woodlands–Sugar Land metropolitan statistical area as the most populous in Texas and the fifth most populous metropolitan area in the United States.

⁴ Texas Local Government Code, Title 7, Section 233.153. "Residential" means a detached one-family or two-family dwelling or a multiple single-family dwelling that is not more than three stories high with separate means of egress.

⁵ There are specific regulatory exceptions, but this is generally true for typical residential construction.

⁶ The Value and Impact of Building Codes; Vaughan & Turner

⁷ American Wood Council

⁸ American Iron and Steel Institute

⁹ After this study was completed, the TDI proposed the 2018 editions for any construction or repairs made on or after January 1, 2020. This change is currently pending approval.

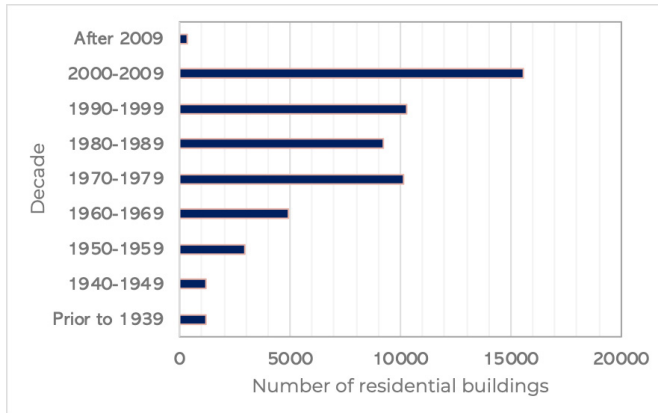
¹⁰ ASCE 7-10 wind speeds (Vult) are based on strength design/load and resistance factor design, while previous ASCE editions used allowable stress design (Vasd).

¹¹ Rating the States: 2018; An Assessment of Residential Building Code and Enforcement Systems for Life Safety and Property Protection in Hurricane-Prone Regions

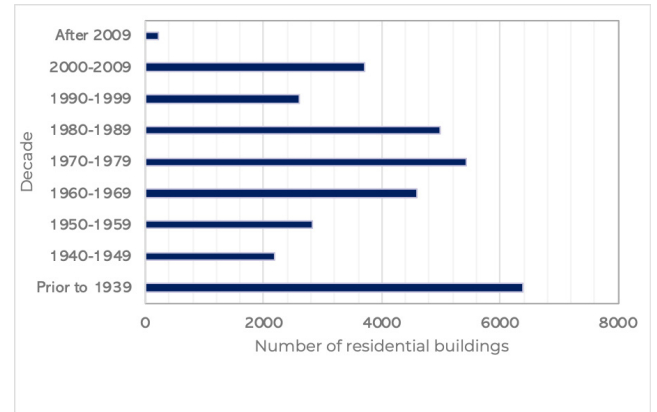
APPENDIX A

The following charts show the number of existing single-family housing units and the decades in which they were built for some coastal Texas municipalities.

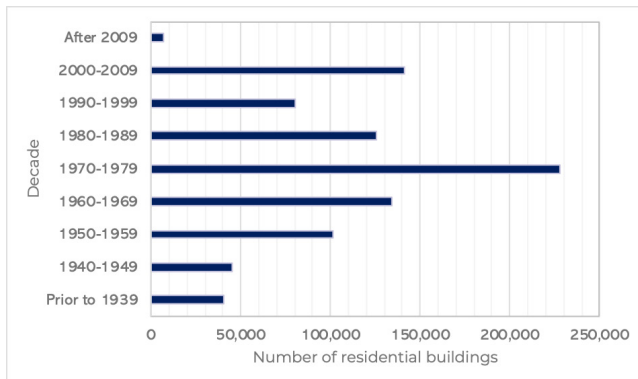
BROWNNSVILLE



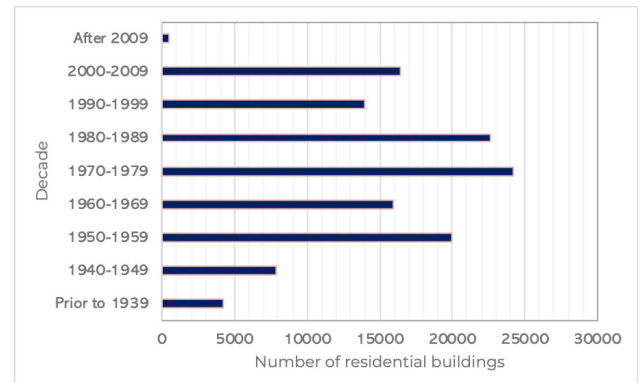
GALVESTON



HOUSTON



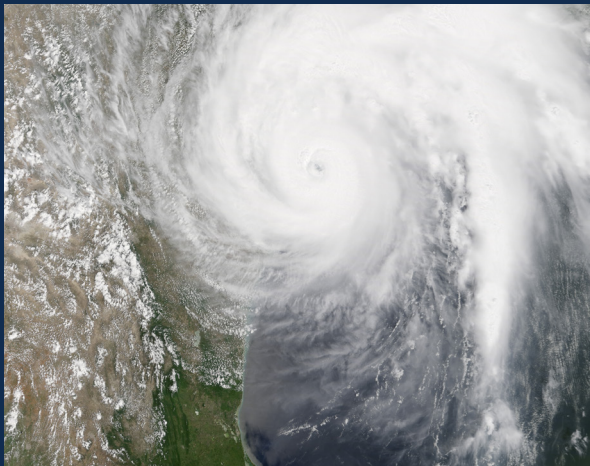
CORPUS CHRISTI



APPENDIX B

TABLE 2. SURVEY QUESTIONS

1	Has the jurisdiction adopted a building code?
2	Do you coordinate with Texas Department of Insurance?
3	Does the code in place reference high-wind requirements?
4a	Does the jurisdiction require new construction permits?
4b	Does the jurisdiction require permits for renovations?
4c	Does the jurisdiction require permits for re-roofing?
5a	Is roof sheathing inspected?
5b	Is the roof sheathing attachment inspected?
5c	Is the roof cover inspected?
6a1	Is sheathing during a re-roof inspected?
6a2	Does the jurisdiction require that during re-roofing, sheathing is brought up to current code?
6b	Is roof cover attachment inspected?
7	Is training required for building inspectors?
8	Are there registration/licensing requirements for general contractors?
8a	Is there competency testing required for general contractors?
9	Are there registration/licensing requirements for roofing contractors?
9a	Is there competency testing required for roofing contractors?



IBHS SURVEY OF BUILDING CODES IN COASTAL TEXAS COMMUNITIES

Approximately one-third of the total population of Texas, over 7 million people, live in vulnerable coastal areas. IBHS surveyed the code enforcement offices of 46 coastal communities in Texas.