The 2019 US Stucco Market Report

- US Census Data
- Regional Data
- Trends & Predictions for the StuccoMarket



SMA Marketing Committee



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STUCCO MANUFACTURERS ASSOCIATION (SMA)

The SMA was incorporated in 1957 to represent plastering in North America. The SMA mission is to promote the use of cement plaster also known as "hard coat" stucco. The SMA's objective includes research, setting standards, education, training and promotion of cement stucco. Increasing the public and designers trust in stucco, enhances a competitive market for innovative products and ensures the growth of the stucco market. Stucco has grown to incorporate several variations of the traditional three-coat stucco found in the building code(s). Today we have insulated one-coat stucco, acrylic finish coats, decorative foam shapes, rainscreen assemblies, crack suppression (lamina) systems and cement board systems (CBS). These are all examples of innovations by the manufacturers in the stucco industry and achievements by the SMA. The understanding of these products and systems can be challenging. Implementation and installation may affect design, aesthetics, performance and the installed price of stucco. All these factors can impact long term stucco market share. The SMA and its members strive to be at the forefront of innovation, improving standards, practices as the industry leader in stucco.

2016 was the first report published by the SMA on the stucco market. The 2016 market report was the first siding report with a focus on stucco. The report gained respect as being accurate and groundbreaking due to the in-depth comprehension of the stucco industry. The SMA gathers residential US census data, other reports, and interviews to analyze trends. The SMA explains regional trends and uses this data to form strategic marketing plans and will continue to make educated predictions for the stucco market. The SMA believes improving the stucco industry must focus on markets, then implement realistic plans to improve those markets.

CODES/STANDARDS: The US model building code is in two sections: the International Building Code (IBC) and the International Residential Code (IRC). The IBC applies to all structures where it is adopted, excluding one and two-family dwellings, which are governed by IRC. Both are administered by the International Code Council (ICC). Each state then votes to adopt the "I" code and may make alterations, municipalities can do the same. Larger cities such as Miami or Los Angeles may produce their own code, typically based on the International Codes.

As buildings get more complex, the code must evolve and expands. In 2000, a monumental shift was made from a prescriptive code to a more performance-based building code. A performance code can leave a void of the "how to" install. The solution was to reference other standards. American Society of Testing Materials (ASTM) is one such referenced standard. The two ASTM standards for stucco are C 1063 (Lath) and C 926 (Cement plaster) a new standard was introduced for trim accessories, C 1861. One-coat stucco and Cement Board Systems (CBS) receive code approval through Evaluation Reports by approved agencies such as the International Code Council (ICC) or the International Association of Plumbing and Mechanical Officials (IAPMO), both agencies are recognized by Building Officials as code compliant. Most building departments recognize the SMA and approve SMA papers as code compliant.

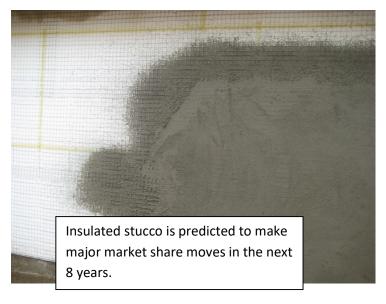
NATIONAL OVERVIEW: The single-family home market is only one market for stucco cladding, but an important and dominant one. The US market share for stucco has doubled since 1973 and has remained at **24**% market share for new single-family homes for three years. Each region varies in gains and losses. Aluminum siding was dropped from the US Census data several years ago. Vinyl siding statistics was added in 1992, Fiber Cement Siding (FCS) added in 2005. Vinyl siding holds the largest market share at **27**%, brick slightly trails stucco at **22**% market share. Wood siding has gone from **30**% market share in 1973 to only **5**% today. Traditional claddings such as brick, stucco, and wood sidings have the longest recorded history with regard to market share.

Primary Type of Exterior Wall Material of New Single-Family Houses Completed (Components may not add to totals because of rounding. Percents computed from unrounded figures.)

1		1	Number of h	ouses (in the	ousands)					Perce	nt distributio	n		107
Year					Vinyl	Fiber					20	Vinyl	Fiber	5.0
-	Total	Brick	Wood	Stucco	siding	cement	Other ²	Total	Brick	Wood	Stucco	siding	cement	Other ²
2003	1.386	275	105	293	528	(NA)	185	100	20	8	21	38	(NA)	14
2004	1,532	291	107	332	578	(NA)	223	100	19	7	22	38	(NA)	15
2005	1,636	333	122	359	556	155	111	100	20	7	22	34	9	7
2006	1,654	351	133	364	497	190	120	100	21	8	22	30	11	7
2007	1,218	282	94	281	360	142	60	100	23	8	23	30	12	5
2008	819	200	76	172	256	97	16	100	24	9	21	31	12	2
2009	520	119	49	97	178	65	13	100	23	9	19	34	13	2
2010	496	113	42	87	180	66	9	100	23	8	17	36	13	2
2011	447	109	35	78	152	65	8	100	24	8	17	34	15	2
2012	483	116	29	92	161	76	8	100	24	6	19	33	16	2
2013	569	140	30	123	174	90	12	100	25	5	22	31	16	2
2014	620	141	32	140	184	112	11	100	23	5	23	30	18	2
2015	648	148	34	157	174	122	13	100	23	5	24	27	19	2
2016	738	162	33	178	200	147	18	100	22	5	24	27	20	2
2017	795	172	39	194	213	161	17	100	22	5	24	27	20	2
							- 1		- 1		- 1			

MARKET SIZE: Globally the stucco siding market size is predicted to reach a valuation of \$15.6 billion by 2026. The growth is a Compounded Annual Growth Rate (CAGR) of 4.9%. The US hard coat stucco market is anticipated to reach \$4.15 billion by 2026. The CAGR is predicted to be sluggish for traditional stucco with gains being in the insulated stucco market.

INSULATED STUCCO: This is a rapidly growing market due to the Energy Code becoming more prominent. Experts estimate that insulated sidings overall will have a GAGR of 5.8% by 2026. This includes insulated three-coat and the proprietary one-coat stucco systems. It is predicted over the next decade,



2/3 of stucco used US will be an insulated system. Due to verifiable code compliance, one-coat stucco will make up a significant portion of the future stucco market.

WHAT IS STUCCO

Stucco in its simplest form is sand, cement and lime applied to masonry or framed walls. Stucco is a relatively thin cement shell that has proven to protect buildings for centuries with minimal maintenance. Cement stucco was introduced to America by the Europeans as they immigrated to the New World. In Europe, stucco was and still is primarily applied to masonry substrates. In America, hard coat stucco is more commonly applied to framed structures. This application change requires a shift in moisture management principles. Some regions are struggling with this shift.

Stucco was included in the first United States building code and remains integral to the International Code(s). The use of stucco has been a preferred siding for aesthetics, codified fire ratings, durability, affordability and proven low maintenance. Life Cycle Costing is an important consideration when selecting a siding material. ASTM STP 1269 was published in 1996 and rated several siding materials; cement stucco was ranked the lowest total cost in a 30-year life span. In 2018, the Department of Energy using the BEES (Building Energy Efficiency Stannard) concluded: "Properly applied stucco will have a useful service life of 100 years."

US Census marketing data, generally considers all stucco-like products, including EIFS, one-coat and Direct Applied Systems as "stucco". It should be noted that these other stucco-like products represent a small percentage of the overall stucco market. Hard coat or cement stucco is the dominant cladding. This is primarily due to the benefit of lower installed cost of cement stucco and durability when compared to other claddings.

COST OF STUCCO

Research reports find that two factors dominate the decision in which cladding to use, Durability and Cost. Since vinyl siding is the dominant market shareholder, it should be assumed that cost generally outweighs durability. Stucco and brick are both durable. However, brick leads surveys on perceived durability. Brick is the highest cost of all residential claddings. The cost for installed stucco to the end user is regional and varies with specific markets. The cost to install stucco corresponds closely with market share. The relationship between stucco market share and regional costs to install should not be underestimated. Unlike drywall, vinyl or fiber cement siding, where prices are relatively uniform across the country, stucco prices will vary dramatically from region to region. Factors impacting the installed cost of installed cement stucco are:

- Labor availability for skilled workers
- Production rates for installing stucco
- Climate
- Materials available in local markets

PRODUCTION/MACHINES

Stucco can be hand or machine applied. As skilled labor decreases, so too has the efficiency of applying plaster by hand tools. Few trades have suffered as much skill loss as plastering. Machines used in the southern half of the US have kept production rates up, which in turn keeps the installed cost of stucco down and market share up. In regions where hand tool application is most common, installed stucco can cost upwards of \$15.00 per square foot. In regions where, large piston or high-volume pumps are common place, production rates remain high. High production stucco application results in lower installed cost and market share



growth. These regions can install basic stucco for as low as \$3.00 per square foot. This makes stucco competitive with vinyl siding and well below brick and even less than fiber cement siding.

High volume pumps are four-cylinder gas or diesel machines that are capable of pumping large volumes of blended sand and cement. For machine applied stucco to be affordable, plaster crews must be efficient, educated and well organized. Crew sizes generally begin at seven workers. This justifies the cost of purchase and maintaining a high-volume pump. High-volume pumps require substantial

amounts of stucco work to keep a crew working steady. This explains why these machines are typically limited to tract homes or large commercial projects.



Moderate volume pumps are generally electric and much smaller making them easy to maneuver and more cost-efficient. They are useful for jobs with limited space and small crew sizes. Crew size can be a little as two workers. These machines are more relevant than ever before as hand tool production continues to decrease. These machines will exceed most hand tool production rates, making them perfect for regions where high-volume production or large volumes of work are present. These machines can help bring costs in line with other all other claddings, excluding vinyl siding. There is a need for each style pump, and each pump has a market niche.

Moderate Volume Plaster Pump

THE EVOLVING MARKET

In years past, owners would hire an experienced architect, who in turn used a qualified general contractor who in turn hired experienced trade contractors who employed educated and skilled workers. Projects were completed through the process of cooperation by allowing these various workers to assert their expertise to solve problems as they appeared. It was agreed by all that "stuff happens." Do not stop or cry over spilled milk; just make it work and move on. The skilled and educated craftspeople did precisely this. It is much different today.

Today:

- Consumers expect quality increases and price decreases
- Consumers are more litigious
- The construction industry is not attracting the best and brightest
- Increase in complexity of buildings with less fault tolerance
- A severe lack of skilled or educated labor in the field
- Most general contractors are construction managers with little field experience.

Construction costs continue to climb. Growing legal risks, administration issues, insurance rates, increased fees, taxation, and growing liability risks are likely to keep prices on the rise. Managing construction risk is now considered a full-time vocation for many professionals. Most look to the ABC" s of risk management as the guide.

A – Avoid potentially dangerous situations (inherent in construction)

B – Be really good at what you do

C – Cover your assets

(A) Risk avoidance comes as the priority but is virtually impossible. (B) Being really good at something, minimizes risk. General contractors have general knowledge and are becoming more likely to hire an expert. This reverts to item A (shift the risk to others). (C) Deliver work that meets expectations, but owners expect high quality and performance for rock bottom prices, making this almost impossible. A paper trail to cover your backside is critical. This is challenging as old standards are altered and new ones coming out all the time. This makes 100% compliance very hard to achieve.

Industry actions or non-actions will impact market share. Installed cost is a primary motivator, followed by durability. This term should be understood as abuse resistance, weather-tough and long lasting with minimal maintenance. It the price point for any cladding is too high, market share will drop. Loss of public confidence in a cladding (durability) can have an equally negative impact on market share.

TRADE FUTURE

As the construction industry continues to evolve, the importance of needing skilled labor has been discussed repeatedly. No real action taken to improve the national situation has been made. The future appears headed to more assemblies requiring less skilled workers. Resulting in new systems that can be installed by lower skilled labor. Industries that need skilled workers, like stucco, will need to invest time and money into industry-wide programs. Apprenticeship is best but reaches too few, is too complex and will take too long. Current training programs tend to lack skill enhancement, improving production rates or minimizing risks to the contractors or users of stucco.

The lack of training and the ABC's, is a push for an increase in prefabrication and subcontractors with diminishing trade expertise. Leading to larger contractors who will simply hire an expert in the craft. While this is possible, it is more likely that these CEO's were led to believe the person he selected was an expert in the trade. Completing a project under budget does not prove expertise in a trade. It is foreseeable that skill levels in plastering could become archaic when the millennials start to retire. Manufacturers will likely be forced to adapt their product lines to ensure the "do-it-yourselfer" can installer their systems without failures. This will help further push more off-site pre-fabrication in attempts to cut cost and reduce construction times. The industry is coming to a crossroads, enhance worker knowledge and skills or move to more pre-fabrication.

CONSTRUCTION TERMS TO KNOW

The following general construction terms are help manufacturers and dealers with the construction market and compliments of Pete Fowler Construction Services, Inc (PFCS). *PFCS is a construction management training firm in five states with extensive construction litigation experience.*

Plans and Details: Graphic representation of construction.

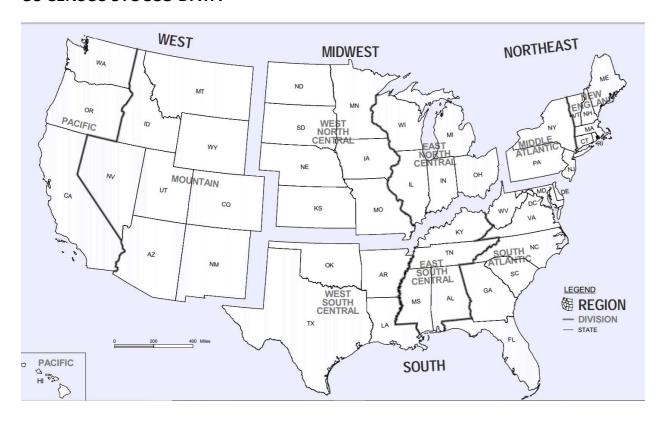
Specifications: Specs are the written representation of construction, which usually includes a greater level of detail regarding performance, process, products and quality.

Construction Contract: Agreement between two or more parties for the delivery of construction; plans and specifications are used as the definition of what is being bought and sold.

Standards: Documents, with graphic and written information, referenced by plans specifications and construction contracts, which specify performance criteria and/or methods in greater detail than typical plans and specifications. Standards are created by standard setting bodies like ASTM, product manufacturers and industry trade groups.

Scope of Work: The written definition of what is being bought and sold. Usually articulated in writing by making a list or description of responsibilities and specific exclusions.

US CENSUS STUCCO DATA



The US Census Bureau breaks the country into four main regions. West, Northeast, South and Midwest. The <u>states</u> with the most stucco market share are in order: California, Arizona, Nevada, Florida, Texas, New Mexico, South Carolina, Utah, Colorado, Georgia, Pennsylvania, Minnesota.

STUCCO REGIONAL MARKETS	PERCENTAGE OF MARKET SHARE	NOTABLE CHANGES
Northeast	1%	DOWN 50% from 2013
Midwest	1%	DOWN 43% from 2016
South	21%	DOWN 1% from 2016
West	55%	UP 3% from 2016

Northeast: Stucco and brick suffered losses in market share. Vinyl and Fiber Cement Siding made gains.

Midwest: Stucco and vinyl suffered losses in market share. Wood and Fiber Cement Siding made gains.

South: Stucco and wood suffered losses in market share. Brick, Vinyl and Fiber Cement Siding made gains. More substantial loses are predicted in the future.

West: Vinyl and Fiber Cement Siding suffered losses in market share. Only stucco made gains

STUCCO BY REGION

NORTHEAST: Never a major market for stucco, market share reached a peak in 2013 at 3%. Today less 1,000 homes, out of 59,000 have stucco. The Delaware Valley in Pennsylvania was a promising market for stucco. Leaks, lack of oversight and poor workmanship led to news stories of stucco litigation, this resulted in a loos of consumer confidence. Adhered masonry veneer was added to the law suits. The solution of costly up grades or consulting fees put stucco at price point well above fiber cement siding. Fiber cement siding gained market share, brick and stucco lost.

Midwest: Minnesota had a decent stucco market and the regional plaster bureau was able to get a 2% market share. This bureau lost its funding and as a result the stucco market share dropped to less than 1,000 homes per year. Fiber Cement Siding made only modest gains. Wood siding was the major winner with a 5% gain in market share. This is the only market wood siding made gains.

South: 434,000 new homes had 93,000 clad with stucco (21%). That is likely to change when new data is complete. Texas has remained steady with stucco market share. Losses are primarily in Florida and South Carolina. Florida was a strong stucco market with a history of cement plaster over Concrete Masonry Units (CMU). Flashing failures, rock bottom pricing, and now skills training, led to leaks and quality issues. South Carolina experienced a boom in stucco, but also failed to install cement plaster to function on framed walls. The re-cladding of many stucco homes has also has shown signs of problems. This led many developers in that region to ban stucco as a cladding. This market will need a strategic plan to re-gain the public trust. Fiber Cement Siding, Vinyl siding and brick all made gains.

West: 99,000 out of 180,000 were clad with stucco (55%). The SMA noted in 2016, The University of Kentucky predicted Fiber Cement Siding to overtake stucco as the major cladding. The SMA implemented plans to reverse that course. Recent data demonstrates the rend has indeed reversed. Stucco gained 3% and Fiber Cement Siding lost 2% market share. This is the only market were Fiber Cement Siding lost and the only market where Stucco market share increased.

The SMA plan was to focus on the two factors buyers use to select siding (**Durability and Cost**). The SMA was able to reverse the perception that stucco could only work employing expensive design options or costly products. This education allowed designers/developers to re-gain trust in stucco as a viable cladding. When cost effective installation practices returned, this put stucco at a favorable price point when compared to Fiber Cement Siding. Blending favorable cost and consumer confidence, stucco has assured itself strong market share for the foreseeable future in the west.

THE SMA ROLE: The SMA became a third-party resource for the public. SMA increased services to the design community and developers. SMA also supported defense experts in reviewing stucco issues to turn back non-meritorious lawsuits. The SMA believes non-profit entities, can act as a kind of "Consumer Reports" for the stucco industry to play a role in market share.



Primary Type of Exterior Wall Material of New Single-Family Houses Completed (Components may not add to totals because of rounding. Percents computed from unrounded figures.)

anners :		- 1	Number of h	ouses (in the			9.4	Percent distribution							
Year		100	0	100	Vinyl	Fiber	3		200	- 11	-	Vinyl	Fiber	- 0	
	Total	Brick	Wood	Stucco	siding	cement	Other ²	Total	Brick	Wood	Stucco	siding	cement	Other ²	
	. %	- 4	- 4	- 9			Northe	ast	- 2	- 1	- 4				
1973	158	13	80	(S)	(NA)	(NA)	62	100	8	51	(S)	(NA)	(NA)	41	
1974	132	10	61	(S)	(NA)	(NA)	61	100	8	46	(S)	(NA)	(NA)	46	
1975	114	10	50	(S)	(NA)	(NA)	54	100	8	44	(S)	(NA)	(NA)	47	
1976	121	11	54	(S)	(NA)	(NA)	56	100	9	45	(S)	(NA)	(NA)	46	
1977	135	12	60	(S)	(NA)	(NA)	62	100	9	45	(S)	(NA)	(NA)	49	
1978	141	14	65	(S)	(NA)	(NA)	62	100	10	46	(S) (S)	(NA)	(NA)	43	
1979	135	14	60	(S)	(NA)	(NA)	60	100	10	44	(S)	(NA)	(NA)	44	
1980	100	9	49	(S)	(NA)	(NA)	40	100	9	49	(S)	(NA)	(NA)	40	
1981	87	6	44	(S)	(NA)	(NA)	35	100	7	51	(S)	(NA)	(NA)	40	
1982	79	5	41	(S)	(NA)	(NA)	31	100	7	52	(S)	(NA)	(NA)	39	
1983	106	7	56	(S)	(NA)	(NA)	42	100	6	52	(S)	(NA)	(NA)	40	
1984	129	8	64	(S)	(NA)	(NA)	54	100	6	50	(S)	(NA)	(NA)	42	
1985	168	8	85	3	(NA)	(NA)	71	100	5	50	2	(NA)	(NA)	42	
1986 1987	193 196	10	98 92	(S) (S)	(NA) (NA)	(NA) (NA)	84 93	100 100	5 5	51 47	(S) (S)	(NA) (NA)	(NA) (NA)	43 48	
1988	188	9	87	(S)	(NA)	(NA)	90	100	5	46	(S)	(NA)	(NA)	48	
1989	159	9	73	(S)	(NA)	(NA)	76	100	5	46	(S)	(NA)	(NA)	48	
1990	127	7	57	(S)	(NA)	(NA)	62	100	5	45	(S)	(NA)	(NA)	49	
1991	100	7	41	(S)	(NA)	(NA)	50	100	7	42	(S)	(NA)	(NA)	50	
1992	114	8	43	(S)	55	(NA)	(S)	100	5	39	(S)	48	(NA)	(S)	
1993	105	3	39	(S)	57	(NA)	(S)	100	3	37	(S)	55	(NA)	(S)	
1994	113	5	36	3	64	(NA)	(S)	100	5	32	2	57	(NA)	(S)	
1995	108	7	30	4	62	(NA)	(S)	100	6	28	3	58	(NA)	(S) (S)	
1996	108	5	27	3	70	(NA)	(S)	100	5	25	3	65	(NA)	(S)	
1997	115	5	26	3	79	(NA)	(S)	100	4	23	3	68	(NA)	(S)	
1998	116	4	22	4	84	(NA)	(S)	100	3	19	4	72	(NA)	(S)	
1999	115	3	19	3	88	(NA)	2	100	3	16	3	77	(NA)	2	
2000	120	4	23	3	88	(NA)	2	100	4	19	2	73	(NA)	2	
2001	114	2	17	2	90	(NA)	2	100	2	15	2	79	(NA)	2	
2002	113	3	16	2	89	(NA)	3	100	3	14	2	79	(NA)	3	
2003	114	2	13	4	91	(NA)	3 5	100	2	12	3	80	(NA)	3	
2004 2005	119 132	4	13	2	96 109	(NA)	2	100 100	3	11	2 2	81 83	(NA)	4	
2006	128	6	12 12	3	102	3	2	100		9	2	79	2		
2007	105	5	11	2	81	3	3	100	5	10		78	3	2	
2007	73	5	7	2	56	2	1	100	5 7	10	2	77	2	2	
2009	54	3	6	1	40	2	- 1	100	6	12	3	74	4	2	
2010	54	3	6	1	42	1	1	100	6	10	2	78	2	1	
2011	44	3	4	1	34	1	1	100	7	8	2	78	3	1	
2012	47	3	4	1	37	2	(Z)	100	6	9	2	79	4	i	
2013	48	3	4	1	37	2	1	100	7	9	3	78	5	1	
2014	49	2	4	1	38	3	1	100	5	9	2	77	6	1	
2015	47	3	6	1	34	2	(Z)	100	7	13	2	74	4	1	
2016	55	5	6	1	39	3	1	100	10	10	1	71	6	1	
2017	59	3	6	1	44	4	1	100	5	10	1	75	8	1	
RSE/SE	4	47	25	44	8	25	37	(NA)	2	3	-1	4	2	(Z)	



Primary Type of Exterior Wall Material of New Single-Family Houses Completed ¹ (Components may not add to totals because of rounding. Percents computed from unrounded figures.)

	I	N	lumber of h	ouses (in tho	usands)		Percent distribution							
Year	100				Vinyl	Fiber	8000 B	1	4 2		20	Vinyl	Fiber	20112000
	Total	Brick	Wood	Stucco	siding	cement	Other ²	Total	Brick	Wood	Stucco	siding	cement	Other ²
	- 10		- 3	1	7 7	- 1	Midv	rest	- 23		10		- 10	
1973	262	59	114	(S)	(NA)	(NA)	87	100	23	43	(S)	(NA)	(NA)	33
1974	220	44	101	(S)	(NA)	(NA)	74	100	20	46	(S)	(NA)	(NA)	34
1975	218	35	118	(S)	(NA)	(NA)	64	100	16	54	(S)	(NA)	(NA)	29
1976	271	41	155	(S)	(NA)	(NA)	74	100	15	57	(S)	(NA)	(NA)	27
1977	300	44	168	(S)	(NA)	(NA)	86	100	15	56 55	(S)	(NA)	(NA)	29
1978 1979	300 294	49 43	164 171	3	(NA) (NA)	(NA) (NA)	84 77	100 100	16 15	58	1	(NA)	(NA) (NA)	28 26
1980	170	22	104	(S)	(NA)	(NA)	41	100	13	62	(S)	(NA)	(NA)	25
1981	140	18	92	(S)	(NA)	(NA)	29	100	13	66	(S)	(NA)	(NA)	20
1982	92	10	61	(S)	(NA)	(NA)	20	100	11	67	(S)	(NA)	(NA)	21
1983	142	19	88	(S)	(NA)	(NA)	33	100	13	62	(S)	(NA)	(NA)	23
1984	156	21	95	(S)	(NA)	(NA)	38	100	14	61	(S)	(NA)	(NA)	24
1985	151	23	82	(S)	(NA)	(NA)	43	100	15	55	(S)	(NA)	(NA)	29
1986	170	26	90	(S)	(NA)	(NA)	53	100	15	53	(S) (S)	(NA)	(NA)	31
1987	201	29	102	(S) (S)	(NA)	(NA)	69	100	14	51	(S)	(NA)	(NA)	34
1988	191	31	90	(S)	(NA)	(NA)	68	100	16	47	(S)	(NA)	(NA)	38
1989	191	30	85	(S)	(NA)	(NA)	74	100	16	45	(S)	(NA)	(NA)	39
1990	195	30	88	(S)	(NA)	(NA)	75	100	16	45	(S)	(NA)	(NA)	39
1991	185	25	77	(S)	(NA)	(NA)	82	100	13	42	(S)	(NA)	(NA)	44
1992	218	28	75	(S)	89	(NA)	23	100	13	35	(S)	41	(NA)	10
1993	232	29	71	(S)	103	(NA)	27	100	13	30	(S)	44	(NA)	12
1994 1995	255 232	31 28	67 53	(S) (S)	127 124	(NA) (NA)	28 24	100 100	12 12	26 23	(S) (S)	50 53	(NA) (NA)	11 10
1996	245	30	53	(S)	139	(NA)	20	100	12	22	(S)	57	(NA)	9
1997	238	31	47	(S)	138	(NA)	18	100	13	20	(S)	58	(NA)	8
1998	244	33	44	(S)	145	(NA)	19	100	14	18	(S)	59	(NA)	8
1999	278	37	47	2	171	(NA)	19	100	13	17	1	62	(NA)	6
2000	269	30	49	3	167	(NA)	20	100	11	18	1	62	(NA)	8
2001	261	29	39	3	169	(NA)	21	100	11	15	1	65	(NA)	8
2002	272	30	30	3	182	(NA)	26	100	11	11	1	67	(NA)	10
2003	274	31	25	4	184	(NA)	30	100	11	9	2	67	(NA)	11
2004	304	32	25	4	214	(NA)	28	100	11	8	1	70	(NA)	9
2005	307	39	35	4	197	22	10	100	13	12	1	64	7	3
2006	285	38	41	4	179	15	8	100	13	14	1	63	5	3
2007	189	27	25	3	115	12	7	100	14	13	2	61	8	4
2008	139	17	25	3	80	11	2	100	12	18	2	58	8	2
2009	89	10	13	2	55	8	2	100	11	15	2	62	9	2
2010 2011	82 78	9	13 11	1	51 47	7	1	100 100	11	16 14	1	63 61	8 11	2
2011	85	11	8	2	52	8 11	1	100	12	9	2	61	13	2 2
2012	96	13	12	2	57	9	3	100	14	12	2	60	9	3
2014	103	12	13	2	62	13	2	100	11	12	2	60	13	2
2015	103	13	14	1	59	13	3	100	12	13	1	57	13	3
2016	117	12	13	2	71	16	3	100	10	11	2	60	13	3
2017	121	12	19	1	67	17	4	100	10	16	1	56	14	3
5.005500000000		55000	5500	1.50		037050		1007.00		201			0.00	135
RSE/SE	2	27	18	55	11	30	30	(NA)	3	3	1	6	4	1



Primary Type of Exterior Wall Material of New Single-Family Houses Completed (Components may not add to totals because of rounding. Percents computed from unrounded figures.)

ณาเมองเลื	227		Number of h	ouses (in the	usands)	0.00	33	Percent distribution						
Year					Vinyl	Fiber	211 2					Vinyl	Fiber	0
	Total	Brick	Wood	Stucco	siding	cement	Other South	Total	Brick	Wood	Stucco	siding	cement	Other ²
39							3000	<u> </u>						
1973	526	335	82	27	(NA)	(NA)	83	100	64	16	5	(NA)	(NA)	16
1974	397	258	60	20	(NA)	(NA)	60	100	65	15	5	(NA)	(NA)	15
1975	362	220	73	11	(NA)	(NA)	58	100	61	20	3	(NA)	(NA)	16
1976	410	261	86	14	(NA)	(NA)	48	100	64	21	3	(NA)	(NA)	11
1977	512	314	117	16	(NA)	(NA)	64	100	61	23	3	(NA)	(NA)	12
1978	571	325	154	26	(NA)	(NA)	66	100	57	27	5	(NA)	(NA)	12
1979	535	277	165	29	(NA)	(NA)	65	100	52	31	5	(NA)	(NA)	12
1980 1981	455 408	221 201	146 136	26 19	(NA) (NA)	(NA)	62 52	100 100	49 49	32 33	6 5	(NA) (NA)	(NA)	13 13
1982	340	172	114	11	(NA)	(NA) (NA)	42	100	51	34	3	(NA)	(NA) (NA)	12
1983	478	231	162	17	(NA)	(NA)	66	100	49	34	4	(NA)	(NA)	14
1984	508	234	174	30	(NA)	(NA)	70	100	46	34	6	(NA)	(NA)	14
1985	514	196	187	30	(NA)	(NA)	102	100	38	36	6	(NA)	(NA)	20
1986	505	178	191	25	(NA)	(NA)	111	100	35	38	5	(NA)	(NA)	22
1987	467	160	165	30	(NA)	(NA)	112	100	34	35	6	(NA)	(NA)	24
1988	457	138	175	35	(NA)	(NA)	109	100	30	38	8	(NA)	(NA)	24
1989	420	128	154	43	(NA)	(NA)	97	100	30	37	10	(NA)	(NA)	23
1990	389	132	128	34	(NA)	(NA)	95	100	34	33	9	(NA)	(NA)	24
1991	348	118	106	27	(NA)	(NA)	98	100	34	30	8	(NA)	(NA)	28
1992	400	157	98	28	75	(NA)	41	100	39	25	7	19	(NA)	10
1993	458	175	103	34	93	(NA)	50	100	38	23	8	20	(NA)	11
1994	507	200	91	39	121	(NA)	55	100	40	18	8 7	24	(NA)	10
1995 1996	472 507	176 192	82 78	32 29	125 147	(NA) (NA)	57 62	100 100	37 38	17 15	6	26 29	(NA) (NA)	12 12
1997	506	189	53	34	168	(NA)	61	100	37	11	7	33	(NA)	12
1998	517	199	36	48	176	(NA)	58	100	39	7	9	34	(NA)	11
1999	570	217	37	50	200	(NA)	65	100	38	7	9	35	(NA)	-11
2000	566	216	36	48	195	(NA)	72	100	38	6	8	34	(NA)	13
2001	578	220	24	45	200	(NA)	89	100	38	4	8	35	(NA)	15
2002	615	224	25	50	219	(NA)	96	100	36	4	8	36	(NA)	16
2003	635	237	24	55	213	(NA)	108	100	37	4	9	34	(NA)	16
2004	700	252	26	60	224	(NA)	138	100	36	4	9	32	(NA)	19
2005	760	288	24	81	216	66	86	100	38	3	11	28	9	11
2006	826	304	33	115	193	87	94	100	37	4	14	23	10	11
2007	631	248	20	116	147	66	34	100	39	3	18	23	10	5
2008 2009	417 259	176 105	20	62	105 74	43 27	11	100 100	42 40	5	15	25 28	10 10	3
2009	258	100	12 12	33 32	79	29	9	100	39	5	13 13	31	11	3
2010	236	97	10	31	65	26	6	100	41	4	13	28	11	
2012	250	102	7	39	67	29	6	100	41	3	16	27	12	2
2013	296	123	5	49	75	36	8	100	41	2	17	25	12	3
2014	329	126	5	66	77	47	7	100	38	1	20	23	14	2
2015	352	131	6	74	76	57	9	100	37	2	21	22	16	2
2016	403	142	6	90	84	68	12	100	35	2	22	21	17	3
2017	435	155	4	93	96	76	11	100	36	1	21	22	18	3
RSE/SE	2	14	26	36	21	12	18	(NA)	5	(Z)	8	4	2	(Z)



Primary Type of Exterior Wall Material of New Single-Family Houses Completed (Components may not add to totals because of rounding. Percents computed from unrounded figures.)

- S	200	Number of houses (in thousands)							Percent distribution							
Year				, T	Vinyl	Fiber			T	1111111111		Vinyl	Fiber	- 0		
	Total	Brick	Wood	Stucco	siding	cement	Other ²	Total	Brick	Wood	Stucco	siding	cement	Other ²		
	33131313						West									
100000	5023	5333	100	2000	3,000	045030	9.0	04923	::20	222	992	1000	12323	2023		
1973	253	15	87	115	(NA)	(NA)	35	100	6	34	45	(NA)	(NA)	14		
1974	191	14	76	76	(NA)	(NA)	26	100	7	40	40	(NA)	(NA)	14		
1975 1976	182 232	15	75	73 103	(NA)	(NA)	19 15	100	8	41	40	(NA)	(NA)	11 7		
1970	311	14 21	100 134	135	(NA) (NA)	(NA) (NA)	20	100 100	7	43 43	44	(NA) (NA)	(NA) (NA)	6		
1978	357	23	160	146	(NA)	(NA)	28	100	6	45	41	(NA)	(NA)	8		
1979	337	19	158	131	(NA)	(NA)	29	100	6	47	39	(NA)	(NA)	9		
1980	233	14	107	92	(NA)	(NA)	20	100	6	46	40	(NA)	(NA)	9		
1981	183	12	86	69	(NA)	(NA)	16	100	6	47	37	(NA)	(NA)	9		
1982	121	12	60	39	(NA)	(NA)	10	100	10	49	32	(NA)	(NA)	8		
1983	200	13	96	74	(NA)	(NA)	18	100	6	48	37	(NA)	(NA)	9		
1984	233	8	101	104	(NA)	(NA)	19	100	3	43	45	(NA)	(NA)	8		
1985	239	6	103	110	(NA)	(NA)	21	100	3	43	46	(NA)	(NA)	8		
1986	253	8	108	120	(NA)	(NA)	18	100	3	43	48	(NA)	(NA)	7		
1987	259	6	103	133	(NA)	(NA)	17	100	2	40	52	(NA)	(NA)	6		
1988 1989	248 257	6	100 92	132 149	(NA) (NA)	(NA) (NA)	11 10	100 100	2 2	40 36	53 58	(NA)	(NA)	4		
1990	257	8	105	132	(NA)	(NA)	11	100	2	41	52	(NA)	(NA)	4		
1991	205	5	91	96	(NA)	(NA)	13	100	3	44	47	(NA)	(NA)	6		
1992	232	9	99	107	3	(NA)	14	100	4	43	46	1	(NA)	6		
1993	247	8	112	109	6	(NA)	13	100	3	45	44	2	(NA)	5		
1994	285	10	120	131	10	(NA)	14	100	4	42	46	3	(NA)	5		
1995	253	6	98	126	13	(NA)	10	100	2	39	50	5	(NA)	4		
1996	269	8	96	140	16	(NA)	9	100	3	36	52	6	(NA)	4		
1997	259	8	84	140	20	(NA)	8	100	2	32	54	8	(NA)	3		
1998	283	5	83	154	27	(NA)	11	100	2	29	55	10	(NA)	4		
1999	310	5	78	171	37	(NA)	20	100	2	25	55	12	(NA)	6		
2000 2001	286	4	66	160	40 33	(NA)	17 28	100 100	1	23	56	14	(NA)	6		
2001	303 325	3	59 55	178 199	35	(NA) (NA)	33	100		20 17	59 61	11	(NA)	9 10		
2002	363	5	42	230	40	(NA)	46	100	1	12	63	11	(NA)	12		
2004	409	4	43	266	44	(NA)	52	100	1	11	65	11	(NA)	12		
2005	437	3	50	272	34	64	14	100	1	11	62	8	15	3		
2006	415	3	47	243	23	85	15	100	1	11	59	5	20	4		
2007	294	1	38	160	17	62	16	100	(Z)	13	54	6	21	5		
2008	190	2	25	104	15	42	2	100	1	13	55	8	22	1		
2009	118	1	17	62	9	29	1	100	1	15	52	8	24	1		
2010	103	1	12	52	8	29	(Z)	100	1	12	51	7	29	(Z)		
2011	91	. 1	10	45	5	29	1	100	. 1	11	49	6	32	1		
2012	101	1	9	51		34	1	100	1	9	51	5	33	1		
2013 2014	129 138	1	8 10	71 71	5	43 48	1	100	1	6 7	55 52	4	33 35	1		
2014	147	4	9	81	5	49	1	100	1	6	56	3	34	1		
2016	164	2	8	85	6	60	9	100	1	5	52	4	37	1		
2017	180	2	9	99	6	63	2	100	1	5	55	3	35	1		
		800	Ĭ				Ē		5359	ઁ						
RSE/SE	2	65	28	11	45	15	31	(NA)	1	1	6	1	5	(Z)		

Footnotes:

RSE/SE - Relative Standard Error (percent), Standard Error (percentage points)

NA - Not available

A - Represents an RSE or SE that is greater or equal to 100 percent or could not be computed Z - Less than 500 units or less than 0.5 percent S - Withheld because estimate did not meet publication standards on the basis of response rate or a consistency review

Stucco With Other Siding: When stucco is listed as the primary cladding, the following data reveals which cladding is considered to be most complimentary to stucco. "Other" out ranks all materials by a significant margin. The SMA believes other is adhered manufactured veneer stone.

Secondary Type of Exterior Wall Material of New Single-Family Houses Completed¹ With Primary Exterior Wall Material of Stucco (Components may not add to totals because of rounding. Percents computed from unrounded figures.)

Year				Vinyl	Fiber									
7 75	Total	Brick	Wood	siding	cement	Other ²	None	Total	Brick	Wood	Vinyl	Fiber	Other ²	None
	Total	DOCK	17000	siding	cernent	Outel	United 5		Drick	WOOD	siding	cement	Outer	None
1000	178622	020	90216	12	100000	192	2000	7797	102	122	ar.	2000	1941	
1999	227	9	6	2	(NA)	12	198	100	4	3	3	(NA)	5	87
2000	214	8	4	1	(NA)	17	183	100	4	2	3	(NA)	8	86
2001	228 255	11	4	2	(NA)	18	193 212	100	5	2	4	(NA)	8	84
2002 2003	293	11	5	2	(NA)	37	235	100	5	2	1	(NA)	11	80
2003	332	10	4	3	(NA)	46	269	100	3	1	4	(NA)	14	81
2005	359	11	8	4	3	53	281	100	3	2	4	(1944)	15	78
2006	364	13	6	3	3	51	288	100	3	2	4	- 1	14	79
2007	281	11	5	1	4	49	212	100	4	2	(Z)	2	17	75
2008	172	7	4	3	2	41	116	100	4	2	2	1	24	67
2009	97	4	3	2	1	22	65	100	4	3	2	1	23	66
2010	87	4	3	2	1	21	55	100	5	3	3	1	24	63
2011	78	4	2	1	2	21	48	100	5	3	2	2	27	62
2012	92	4	1	1	2	24	60	100	4	2	2	2	26	65
2013	123	5	1	1	2	33	81	100	4	1	1	2	27	65
2014	140	6	1	1	3	36	93	100	4	1	1	2	26	66
2015	157	8	2	2	4	40	102	100	5	1	1	3	26	65
2016	178	7	2	1	4	43	121	100	4	1	1	2	24	68
2017	194	10	1	2	5	46	130	100	5	1	1	2	24	67
acvanove-s	0.05	7550	38-4	27.792	7326	2.00	407.1	V0000	385	12/03/2	99009		778	
RSE/SE	18	24	27	22	44	17	North	(NA)	1	(Z)	(Z)	- 1	5	5
1999	3	(Z)	(Z)	(Z)	(NA)	- 1	1	100	5	3	7	(NA)	43	42
2000	3	(Z)	(Z)	(Z)	(NA)	1	2	100	4	3	4	(NA)	29	59
2001	2	(Z)	(Z)	(Z)	(NA)	1	1	100	8	4	2	(NA)	32	54
2002	2	(Z)	(Z)	(Z)	(NA)	41	- 31	100	17	2	4	(NA)	27	50
2003	4	1	(Z)	1	(NA)	(Z)	1	100	29	6	29	(NA)	9	27
2004		(Z)	(2)	(Z)	(NA)	1	-	100	5	(Z)	8	(NA)	44	43
2005	2	(Z)	(Z) (Z)	(Z)	0	31	1	100	15	4	1	0	46	34
2006	3	1	(Z)	(Z)	(Z)	1	1	100	25	2	4	3	21	46
2007	2	(Z)	0	(Z)	0	1	1	100	18	0	11	0	33	38
2008	2	(Z)	(Z)	(Z)	0	.1	1	100	14	3	5	0	27	51
2009	1	(Z)	(Z)	(Z)	(Z)	(Z)	. 1	100	2	3	9	2	32	52
2010	1	(Z)	0	(Z)	0	(Z)	(Z) (Z)	100	6	0	23	0	38	32
2011	1	(Z)	0	(Z)	0	(Z)	(Z)	100	15	0	18	0	25	43
2012	1	(Z)	0	(Z)	(Z)	(Z)	(Z)	100	34	0	3	3	36	23
2013	1	(Z)	0	0	(Z)	1	1	100	23	0	0	5	36	37
2014	1	(Z)	0	(Z)	0	(Z)	(Z)	100	13	0	12	0	28	47
2015	1	(Z)	0	0	0	(Z)	(Z)	100	26	0	0	0	21	53
2016	1	(Z)	0	0	(Z)	(Z)	(Z)	100	15	0	0	15	28	42
2017	1	(Z)	0	(Z)	0	(Z)	(Z)	100	17	0	9	0	39	34
		889		533	200	0.00	201	2.3	- 5					175
RSE/SE	44	(A)	(A)	(A)	(A)	45	59 Midw	(NA)	14	0	9	0	14	16
1999	2	- 1	0	(Z)	(NA)	(Z)	1	100	25	0	5	(NA)	20	50
2000	3	1	(Z)	0	(NA)	1	2	100	17	4	0	(NA)	24	54
2001	3	1	1	(Z)	(NA)	(Z)	1	100	23	16	2	(NA)	17	43
2002	3	(Z)	(Z)	(Z)	(NA)	1	i i	100	12	9	3	(NA)	39	37
2003	4	1	(Z)	(Z)	(NA)	2	1	100	19	4	1	(NA)	50	25
2004	4	(Z)	(Z)	0	(NA)	2	1	100	6	14	0	(NA)	52	28
2005	4	(Z)	(Z)	(Z)	(Z)	2	2	100	12	2	1	3	42	41
2006	4	1	(Z)	(Z)	(Z)	2	1	100	21	3	1	1	44	31
2007	3	(Z)	(Z) (Z)	(Z)	(Z)	3	2	100	13	1	1	5	35	45
2008	3	. 1	(Z)	(Z)	(Z)	1	1	100	20	2	2	2	30	44
2009	2	(Z)	(Z)	(Z)	0	-1	(Z)	100	10	2	3	0	62	23
2010	1	(Z)	(Z)	ó	(Z)	(Z)	(Z)	100	17	3	0	3	36	42
2011	1	(Z)	(Z)	0	(Z)	(Z)	(Z)	100	21	2	0	2	41	33
2012	2	(Z)	0	(Z)	(Z)	1	1	100	17	0	2	5	32	43
2013	2	(Z)	0	(Z)	0	1	1	100	4	0	2	0	46	48
2014	2	(Z)	(Z)	(Z)	(Z)	. 1	(Z)	100	11	5	3	2	52	28
2015		(Z)	(Z)	(Z)	(Z)	(Z)	(Z) (Z)	100	15	4	8	3	37	33
2016	2	(Z)	0	(Z)	(Z)	1	(Z)	100	12	0	1		66	19
2017	1	(Z)	(Z)	(Z)	0	1	(Z)	100	26	2	5	0	49	18
						100	200		22.2		1000			

Secondary Type of Exterior Wall Material of New Single-Family Houses Completed¹ With Primary Exterior Wall Material of Stucco (Components may not add to totals because of rounding. Percents computed from unrounded figures.)

average 1		1	Number of h	ouses (in the	ousands)		4	Percent distribution							
Year	Total	Brick	Wood	Vinyl	Fiber	Other ²	None	Total	Brick	Wood	Vinyl	Fiber	Other ²	Non	
	- W	- 9	- 95	- 100	18	- 8	South			- 88	178	- 1	- 33		
	CY				Showner.		0.000	40-10			6000	NAME AND	100	107	
1999	50	1	1	1	(NA)	2	46	100	1	2	2	(NA)	4	9	
2000	48	1	1	(Z)	(NA)	2	44	100	2	1	1	(NA)	4	9	
001	45	2	(Z)	- 1	(NA)	2	41	100	3	1	2	(NA)	5	8	
002	50	1	1	1	(NA)	4	44	100	2	1	2	(NA)	8	3	
003	55	2	5	- 1	(NA)	4	48	100	3	2	1	(NA)	7	9	
004	60	1	1	2	(NA)	5	51	100	1	1	4	(NA)	9	-	
005	81	1	(Z)	3	1	6	70	100	1	(Z)	3	1	7	3	
006	115	.1	1	2	2	8	100	100	1	1	2	- 1	7	3	
007	116	2	1	1	3	12	98	100	2	1	1	2	11	-	
800	62	1	1	1	1	11	48	100	1	2	1	1	18		
009	33	(Z)	1	1	1	6	24	100	1	4	2	2	20		
010	32	1	1	- 1	1	8	22	100	2	2	3	2	25	-	
011	31	1	1	(Z)	1	8	21	100	2	2	1	2	25	9	
012	39	1	1	1	(Z)	8	28	100	2	2	2	1	19		
013	49	1	(Z)	(Z)	1	8	38	100	2	1	(Z)	2	17	- 1	
014	66	2	(Z)	1	2	11	51	100	3	(Z)	1	2	17	9	
015	74	2	(Z)	1	2	13	56	100	3	(Z)	1	2	18		
016	90	3	(Z)	(Z)	2	15	71	100	3	(Z)	(Z)	2	16	- 8	
017	93	3	(Z)	1	2	10	77	100	3	(Z)	1	2	10	- 1	
Walter State Co.	550	200000	Alter	2000	-24	200					100%	100	2.00		
RSE/SE	36	63	(A)	33	49	26	37 West	(NA)	1	(Z)	(Z)	1	3		
-	- 10	18	- 3	- 9	- 16	10	WOSE	- 53	- 3	- 8:	- 35	- 10	18		
1999	171	7	5	(Z)	(NA)	9	150	100	4	3	(Z)	(NA)	5	8	
000	160	6	3	(Z)	(NA)	14	136	100	4	2	(Z)	(NA)	9	4	
001	178	9	4	(Z)	(NA)	15	150	100	5	2	(Z)	(NA)	8		
002	199	9	3	1	(NA)	22	165	100	4	2	(Z)	(NA)	10	3	
003	230	10	4	(Z)	(NA)	31	185	100	4	2	(Z)	(NA)	13	- 3	
004	266	9	3	1	(NA)	38	216	100	3	1	(Z)	(NA)	14	-	
005	272	9	7	1	2	44	208	100	3	3	(Z)	1	16	- 8	
006	243	10	5	1	1	41	185	100	4	2	(Z)	1	17		
007	160	8	4	(Z)	2	35	112	100	5	2	(Z)		22	- 1	
008	104	5	2	2	1	28	66	100	5	2	2	- 1	27	- 6	
009	62	4	1	1	1	15	40	100	6	2	2	1	24		
010	52	3	2	4	1	12	32	100	7	4	2	1	24	Ñ	
011	45	3	2	- 41	4	13	26	100		3	2	2	28		
012	51	2	1	1	4	16	30	100	6	1	2	2	31	8	
013	71	4	4	4	4	24	41	100	5	4	4	2	33	5	
014	71	4	4	(Z)	2	24	41	100	5	- 1	- 4	2	33	3	
015	81	5	- 1	(2)	2	27	45	100	6	2	- 4	3	33		
016	85	4	2	- 1	2	27	50	100	5	2		3	31		
017	99	6	1	1	3	35	52	100	6	1	1	3	36	3	
RSE/SE	11	18	28	29	69	22	17	(NA)	1	(Z)	(Z)	2	6		

"Other" includes stone veneer and can be up 49% of the secondary material. Many stucco contractors add adhered veneer stone to their portfolio. The skill sets, and materials are similar. It is also easy to train stucco installers to install stone veneer. Most stone installers lack skills to install cement stucco in a productive manner. The adhered manufactured stone veneer market has been growing for decades. The stucco industry and the stone industry rarely partner on marketing or technical efforts. These specialty siding contractors install stucco, EIFS and adhered stone. Ironically, this symbiotic industry has three separate and competing associations. All are



competing for members with no coordinated market strategy. www.stuccomfgassoc.com