ROSE
ARCHITECTS

9.17.2025

MPC STAFF

Re: 118 West Harris Renovation and Addition

We are requesting a lot coverage variance of 4.75%, this variance will allow the owner to meet the HDBR direction to place the structure on the lane and provide the standard of visual continuity with the neighboring carriage house.

The section we are requesting the variance from is section:

Sec. 5.14 Downtown Districts

5.14.5 Development Standards for Permitted Uses
D-R Zoning has a maximum of 75% lot coverage we are requesting a 4.75% variance which brings our lot coverage to 79.75%, This variance request is a direct response to the direction of the HDBR board relating to visual compatibility.

With Regards,

Signed,

Kevin Rose

President

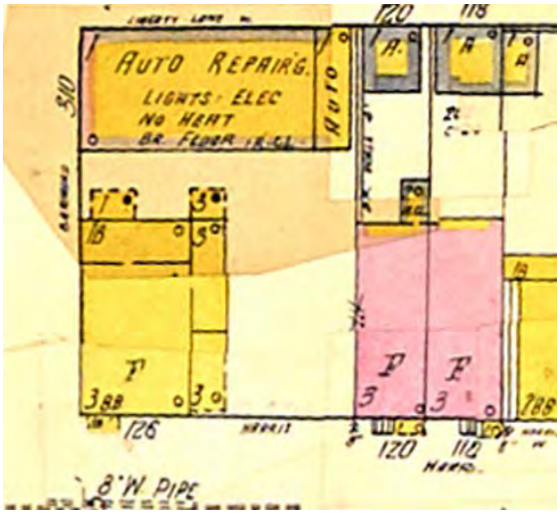
Rose Architects PC

Project Description

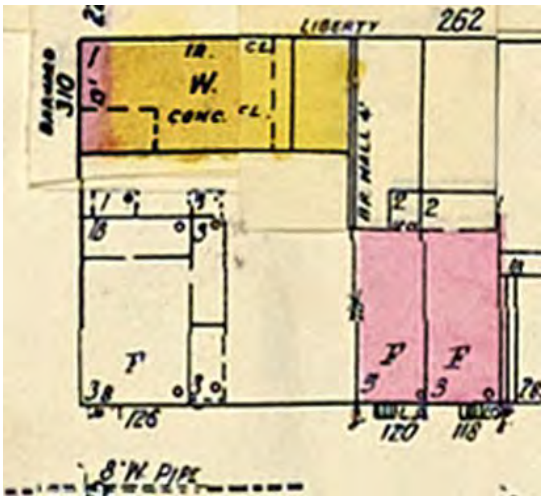
118 West Harris Street Addition

118 West Harris Street was constructed in 1884 and is a contributing building within the Savannah National Historic Landmark District.

Sanborn Maps indicate that there was never a carriage house associated with the property; however, a concrete block garage was present in the 1950s. Sometime between 1953 and 1973, a rear addition was added to the north facade.



1953 Sanborn



1973 Sanborn

ROSE
ARCHITECTS

Project Description:

The project is comprised of a full renovation of the existing historic structure, the removal of the 1996 addition on the north façade, and an addition to the north façade which provides a carriage house form and a narrow connector. The project also adds an elevator for full ADA compliant access to all floors. The addition respects the rhythm and line of continuity of neighboring structures and also reveals 66% of the existing façade which was covered up by the 1996 addition.

Additionally, this project will restore the historic facades and historic interior and exterior fabric as a preservation tax credit project under the strict guidelines and review of the National Park Service (NPS) and State Historic Preservation Office (SHPO.)

A History of

THE GAMMELL DUPLEX

118 West Harris Street,
Savannah, GA

ethos

Authored and researched by Brooke Mollenkamp
in collaboration with Ethos Preservation

Prepared by Ethos Preservation

August 2025

A HISTORY OF
THE GAMMELL DUPLEX

118 West Harris Street, Savannah, GA

ethos

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INTRODUCTION

118 and 120 West Harris Street are row houses located in the National Historic Landmark District of Savannah, Georgia. Situated off of Pulaski Square, the two connected dwellings were built by William Gammell for the John Gammell Estate in 1884 on Lot 15 of the Pulaski Ward. Together, the two row houses comprise what is known as the Gammell Duplex, with 118 West Harris Street representing the eastern portion. Originally listed as 158 Harris Street, the address was renumbered in 1897 following a revision of the city's house numbering system. It is built in the Italianate style of architecture, which was very popular in the mid-19th century.

Close-up of 118-120 West Harris Street. "Pulaski Square," undated. Courtesy of the Georgia Historical Society.

THE OGLETHORPE PLAN AND CITY COMMONS

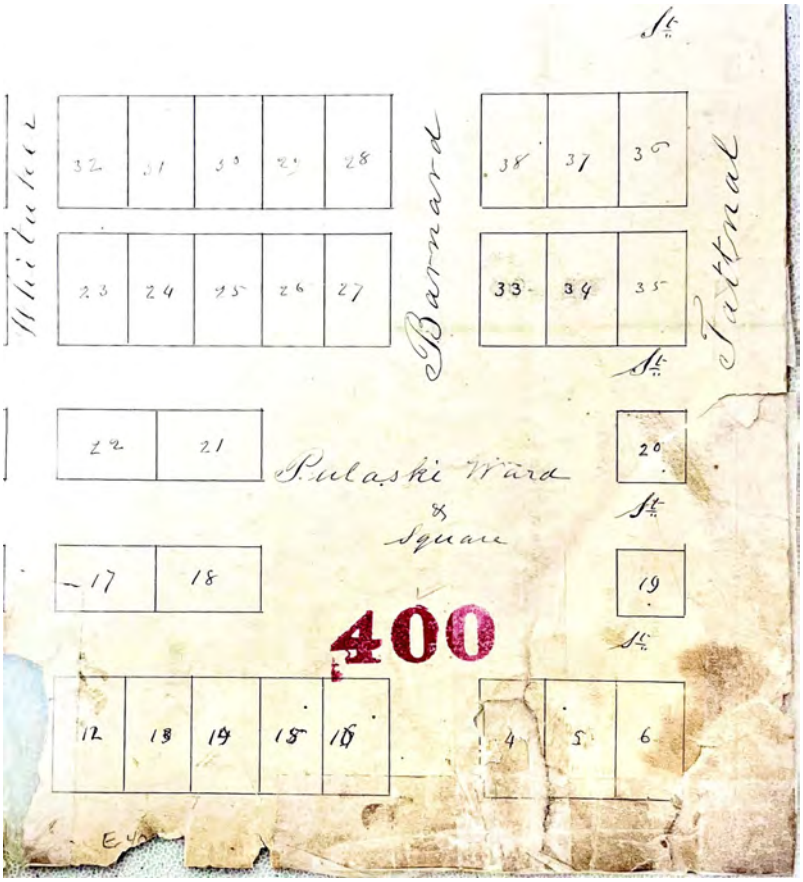
In 1733, James E. Oglethorpe and a group of colonists arrived near present-day Port Royal, South Carolina, searching for a place to settle. They chose Yamacraw Bluff, now part of Downtown Savannah. There, Oglethorpe established both the Colony of Georgia and its first city, Savannah. Oglethorpe laid out a town plan, which is known today as the "Oglethorpe Plan." Many aspects of his celebrated plan are familiar to us and still exist today, namely the squares, wards, trust lots, and tything lots. An unfamiliar component is the City Common, public land owned by the settlement that the colonists used for grazing animals, and allowed the City of Savannah to plan its growth as the population increased.

This 1818 map displays the City Common where 118 West Harris Street stands today. Note that South Broad Street is Oglethorpe Avenue today.

Plan of the city and harbour of Savannah in Chatham County, 1818. Drawn & published by I. Stouf ; engraved by Hughes Curzon & Co. *Library of Congress.*

PULASKI WARD

The legal description of 118 West Harris Street is "East 20 feet of Lot 15, Pulaski Ward." Pulaski Ward was laid out in 1837 and was the first ward south of Liberty Street. It is named for Count Casimir Pulaski, a Polish 18th-century freedom fighter who was persuaded by Benjamin Franklin to help America fight for independence. He died in 1779 during the Siege of Savannah. The street is named for General Francis Harris, a member of the first General Assembly of Georgia.



Plan of Pulaski Square, undated. Engineering Department - Retrospective Maps Collection, 3121-008 East/ West Maps. *Courtesy of the City of Savannah Municipal Archives.*

Depiction of Count Casimir Pulaski from "Historical Record of the City of Savannah" by Frederick D. Lee and J. L. Agnew, 1869. *Babel Hathi Trust Library.*

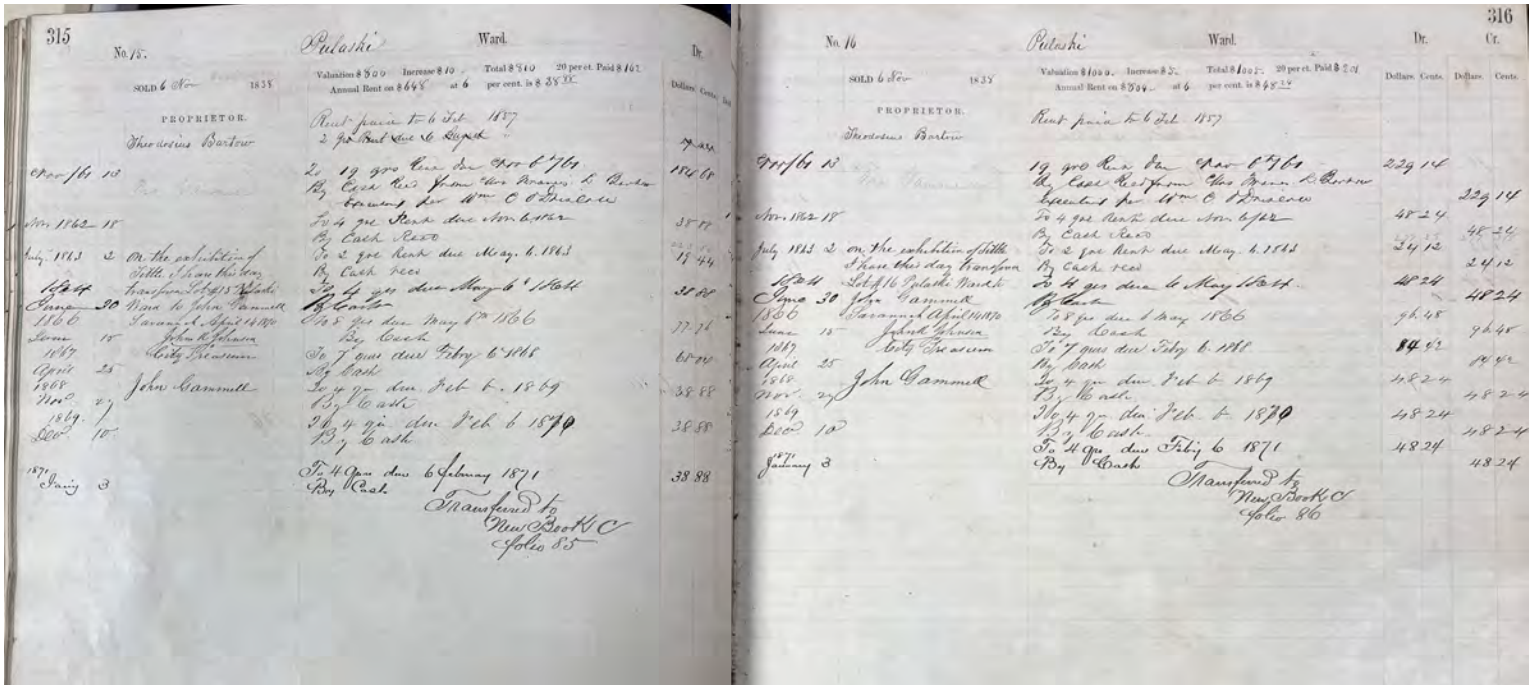
JOHN GAMMELL & THE BARTOW FAMILY

Just after the start of the Civil War, in November of 1861, John Gammell purchased Lots 15 and 16 of Pulaski Ward from the Estate of Theodosius Bartow for $10,000, subject to annual ground rents due to the City of Savannah. Theodosius Bartow's son, Colonel Francis S. Bartow served the Confederacy and was considered one of the South's Civil War heroes. He became one of the first high-ranking Georgia military officers to fall in the Civil War, losing his life at Manassas, Virginia, during the first major land battle of the conflict on July 21, 1861. His last words, "They have killed me boys, but never give up the field," are often quoted. A bronze bust of Bartow was placed in Chippewa Square in 1902 and was relocated to the Civil War Memorial in Forsyth Park in 1910.

In 1861, when John Gammell made this purchase, Lot 16 had an existing home on it, currently 126 West Harris Street, known as the Bartow House. Both Theodosius and Francis S. Bartow and their families lived there. Lot 15, where 118 West Harris Street stands today, was used as a garden or green space.

The pages of this Ground Rent Book display the transfer of Lots 15 and 16 in the Pulaski Ward from Theodosius Bartow to John Gammell in 1861.

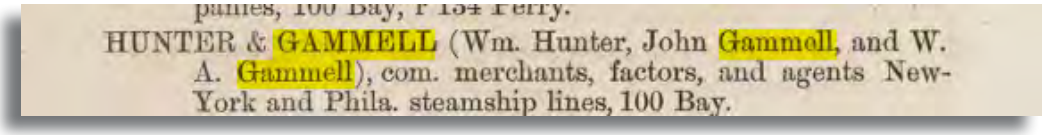
Bust of Francis S. Bartow located at the Civil War Memorial in Forsyth Park. *Savannah Morning News.*



Ground Rent Books, 1857-1861. *Courtesy of the City of Savannah Municipal Archives.*

JOHN GAMMELL

John Gammell was born in Medfield, Massachusetts, on April 14, 1819. In 1839, he moved to Wilmington, NC, where he worked for the shipping and commission firm of Brown, DeRossett & Company. In 1841, he married Elizabeth (Bessie/Betsy) Berry, and together they moved to Savannah in 1847. In Savannah, he and John Hunter established the firm of Hunter & Gammell, commission merchants, cotton factors, and shipping agents." The firm of Hunter & Gammell was well known and was located at Number 5 Stoddard's Lower Range on the Savannah River at 100 Bay Street, present day 102 East Bay Street. John Gammell's son, William, also worked at Hunter & Gammell.


HUNTER & GAMMELL (Wm. Hunter, John Gammell, and W. A. Gammell), com. merchants, factors, and agents New-York and Phila. steamship lines, 100 Bay.

Haddock's Savannah, GA., Directory, and General Advertiser, 1871. *Digital Library of Georgia.*


EDGAR L. GUERARD. EDWARD L. HOLCOMBE.

GUERARD & HOLCOMBE,

FACTORS,

GENERAL COMMISSION AND SHIPPING MERCHANTS,

NO. 5 STODDARD'S LOWER RANGE, BAY STREET,

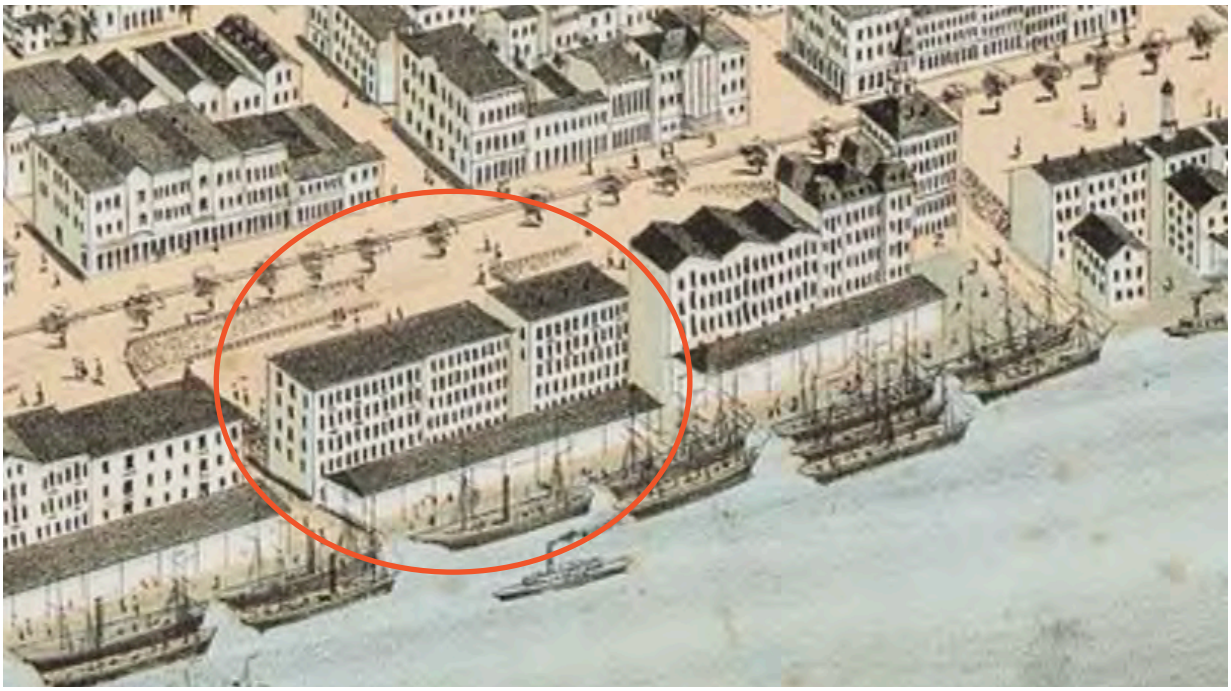
SAVANNAH, GA.,

Are prepared to advance liberally on Consignments of Cotton, Produce, and Merchandise.

REFERENCES.—Robert Habersham & Sons, Hunter & Gammell, Geo. W. Anderson, Duncan & Johnson, Holcombe & Co., Anthony Porter.

Ass: When he is a little sulky.

Advertisement section of Historical Record of the City of Savannah, 1869. *Library of Congress.*

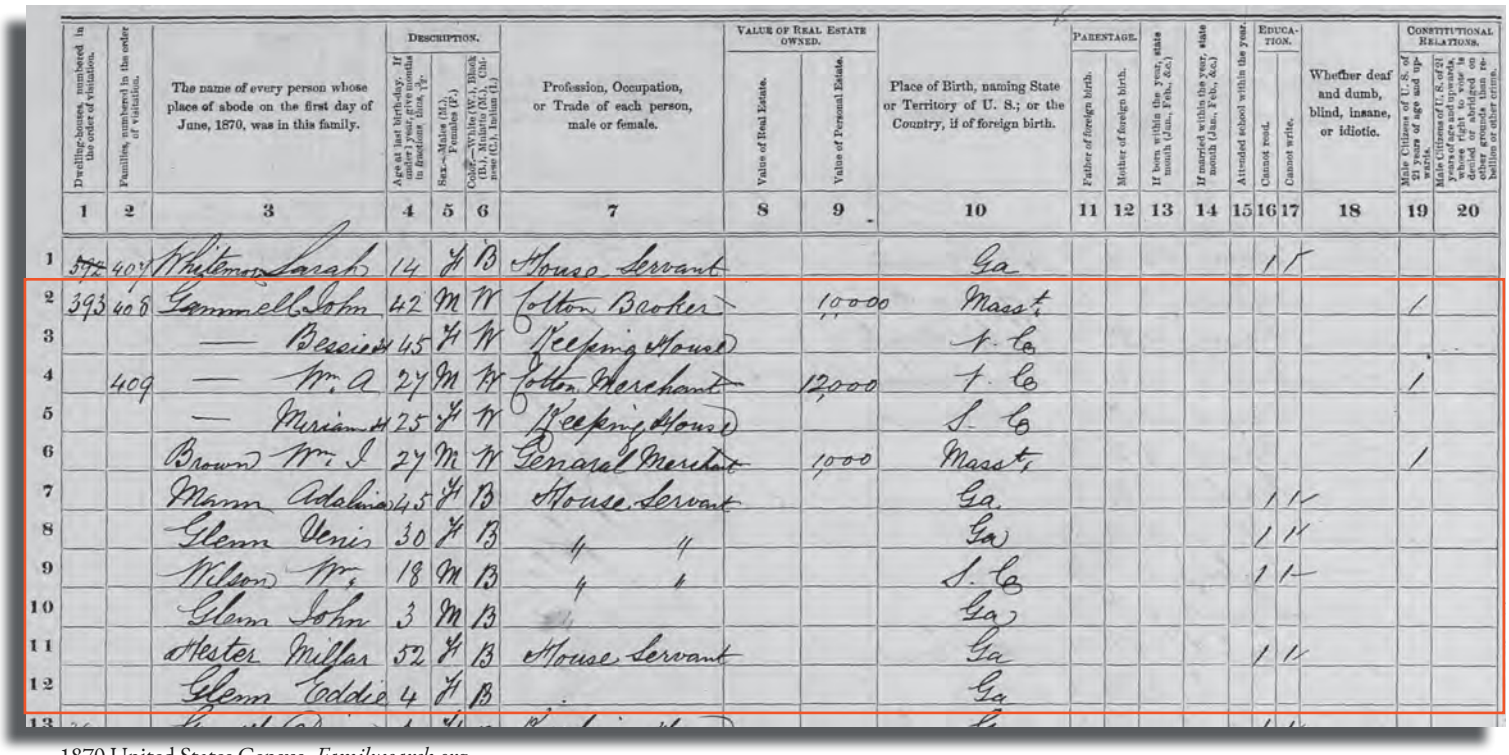


"1871 Map Bird's Eye View of the City of Savannah," by A. Ruger. *Everard Auctions and Appraisals.*

1870 Census

GAMMELL FAMILY

The United States Census of 1870 was the ninth census taken by the United States government; it displays John Gammell (42), his wife, Bessie (45), their son, William A. Gammell (27), his wife, Miriam (25), a business acquaintance/ friend, William I. Brown (27), and several domestic workers along with their presumed children: Adalina Mann (45), Venis Glenn (30), William Wilson (18), John Glenn (3), Hester Millar (52), and Eddie Glenn (4).

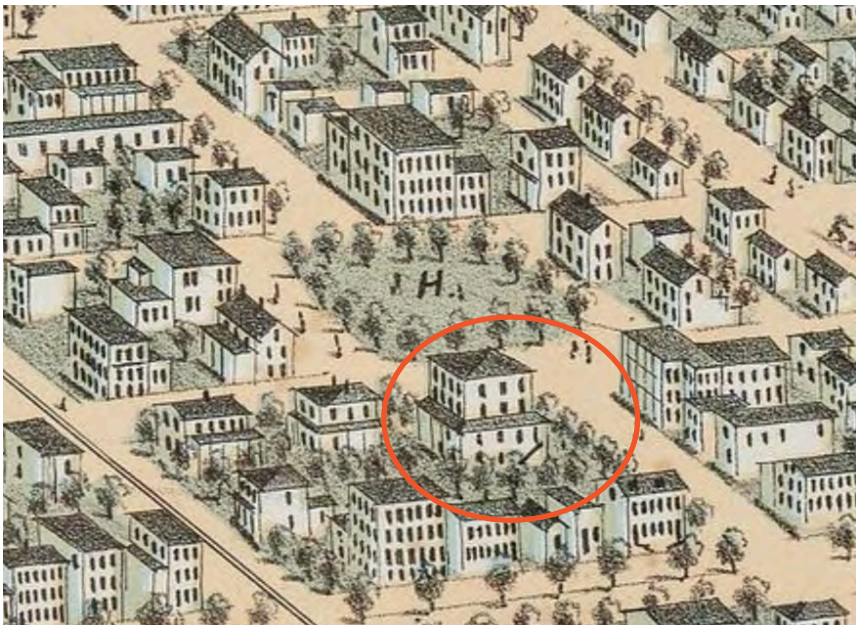


Dwelling-houses, numbered in the order of visitation.	Families, numbered in the order of visitation.	The name of every person whose place of abode on the first day of June, 1870, was in this family.	Description: Age at last birthday. If under 1 year, give months in fractions thus, ⅔.	Description: Sex.—Males (M.), Females (F.)	Description: Color.—White (W.), Black (B.), Mulatto (M.), Chinese (C.), Indian (I.)	Profession, Occupation, or Trade of each person, male or female.	Value of Real Estate Owned: Value of Real Estate.	Value of Real Estate Owned: Value of Personal Estate.	Place of Birth, naming State or Territory of U. S.; or the Country, if of foreign birth.	Parentage: Father of foreign birth.	Parentage: Mother of foreign birth.	If born within the year, state month (Jan., Feb., &c.)	If married within the year, state month (Jan., Feb., &c.)	Attended school within the year.	Education: Cannot read.	Education: Cannot write.	Whether deaf and dumb, blind, insane, or idiotic.	Constitutional Relations: Male Citizens of U. S. of 21 years of age and upwards, whose right to vote is denied or abridged on other grounds than rebellion or other crime.	Constitutional Relations: Male Citizens of U. S. of 21 years of age and upwards, whose right to vote is denied or abridged on other grounds than rebellion or other crime.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	407	Whiteman Sarah	14	F	B	House Servant			Ga						1	1			
2	408	Gammell John	42	M	W	Cotton Broker		10,000	Mass.									1	
3		— Bessie	45	F	W	Keeping House			S. C.										
4	409	— W. A.	27	M	W	Cotton Merchant		12,000	S. C.									1	
5		— Miriam	25	F	W	Keeping House			S. C.										
6		Brown W. I.	27	M	W	General Merchant		1000	Mass.									1	
7		Mann Adalina	45	F	B	House Servant			Ga.						1	1			
8		Glenn Venis	30	F	B	4 4			Ga.						1	1			
9		Wilson W.	18	M	B	4 4			S. C.						1	1			
10		Glenn John	3	M	B				Ga.										
11		Hester Millar	52	F	B	House Servant			Ga.						1	1			
12		Glenn Eddie	4	F	B				Ga.										
13																			

1870 United States Census. *Familysearch.org.*

118 West Harris Street had not been built yet; the census is a snapshot of the family that would build 118 West Harris Street in 14 years. At the time, they resided in the home adjacent to the property at present-day 126 West Harris Street.

In this 1871 map, Pulaski Square is labeled "H"; 126 West Harris Street is the large white house on the corner, still present today, and 118 West Harris Street is an empty lot.

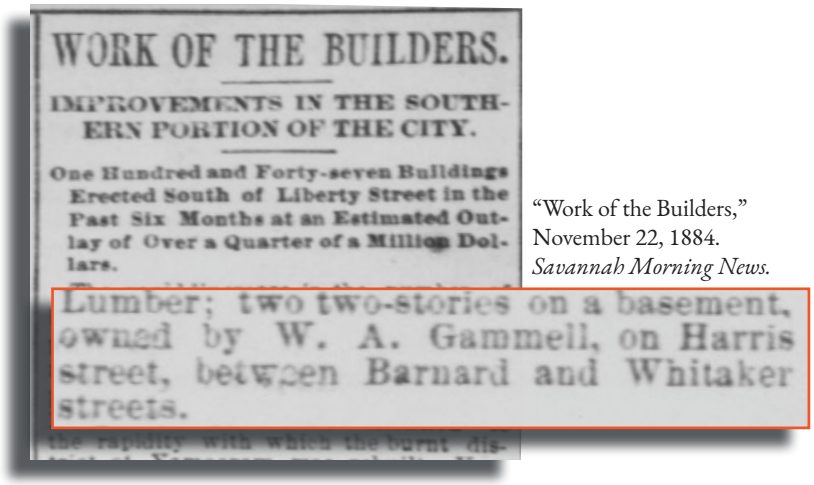


"1871 Map Bird's Eye View of the City of Savannah," by A. Ruger. *Everard Auctions and Appraisals.*

JOHN GAMMELL ESTATE

John Gammell died on May 28, 1877, at his home on Pulaski Square. He is buried at Laurel Grove North Cemetery in Savannah, GA. The 1879 Savannah City Directory displays the remaining Gammells at 126 West Harris Street: Betsey H. (widow), and William A., who is no longer with Hunter & Gammell, but with W.E. Johnstone & Co.

The 1880 Savannah City Directory does not contain the Gammells, as the Gammells moved to Charleston, South Carolina. The Estate of John Gammell continued to own Lots 15 and 16 of Pulaski Ward, and in 1884 William Gammell had "two two-stories built on a basement" erected on Lot 15 as evidenced by a Savannah Morning News article dated November 22, 1884. Subsequently, the building was rented for many years as an investment property.



WORK OF THE BUILDERS.

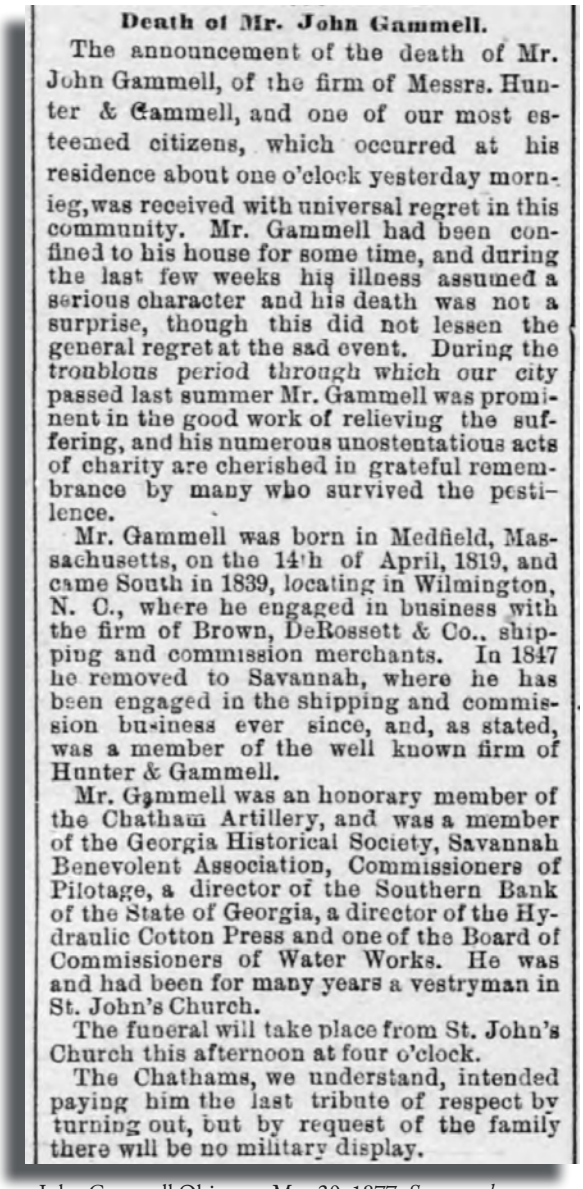
IMPROVEMENTS IN THE SOUTHERN PORTION OF THE CITY.

One Hundred and Forty-seven Buildings Erected South of Liberty Street in the Past Six Months at an Estimated Outlay of Over a Quarter of a Million Dollars.

Lumber; two two-stories on a basement, owned by W. A. Gammell, on Harris street, between Barnard and Whitaker streets.

"Work of the Builders," November 22, 1884. *Savannah Morning News.*

The 1885 Tax Assessment Book of the City of Savannah further supports an 1884 construction date by displaying an Improvement of $5500 on Lot 15 of Pulaski Ward.



Death of Mr. John Gammell.

The announcement of the death of Mr. John Gammell, of the firm of Messrs. Hunter & Gammell, and one of our most esteemed citizens, which occurred at his residence about one o'clock yesterday morning, was received with universal regret in this community. Mr. Gammell had been confined to his house for some time, and during the last few weeks his illness assumed a serious character and his death was not a surprise, though this did not lessen the general regret at the sad event. During the troublous period through which our city passed last summer Mr. Gammell was prominent in the good work of relieving the suffering, and his numerous unostentatious acts of charity are cherished in grateful remembrance by many who survived the pestilence.

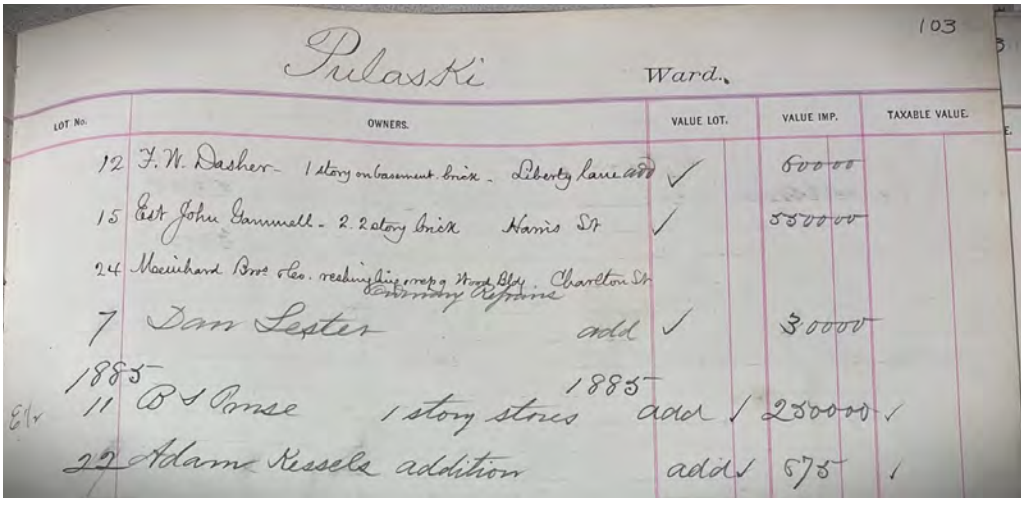
Mr. Gammell was born in Medfield, Massachusetts, on the 14th of April, 1819, and came South in 1839, locating in Wilmington, N. C., where he engaged in business with the firm of Brown, DeRossett & Co., shipping and commission merchants. In 1847 he removed to Savannah, where he has been engaged in the shipping and commission business ever since, and, as stated, was a member of the well known firm of Hunter & Gammell.

Mr. Gammell was an honorary member of the Chatham Artillery, and was a member of the Georgia Historical Society, Savannah Benevolent Association, Commissioners of Pilotage, a director of the Southern Bank of the State of Georgia, a director of the Hydraulic Cotton Press and one of the Board of Commissioners of Water Works. He was and had been for many years a vestryman in St. John's Church.

The funeral will take place from St. John's Church this afternoon at four o'clock.

The Chathams, we understand, intended paying him the last tribute of respect by turning out, but by request of the family there will be no military display.

John Gammell Obituary, May 30, 1877. *Savannah Morning News.*



103

Pulaski Ward.

LOT No.	OWNERS.		VALUE LOT.	VALUE IMP.	TAXABLE VALUE.
12	F. W. Dasher	1 story on basement brick - Liberty Lane	✓	600 00	
15	Est John Gammell	2-2 story brick Harris St	/	5500 00	
24	Macmichael Bros & Co. reading line warp Wood Bldg Charlton St Warehouse & Office				
7	Sam Lester	add	✓	3000	
1885		1885			
11	B & Ponse	1 story stores	add ✓	2500 00	✓
22	Adam Kessels	addition	add ✓	575	/

1885 Tax Assessment Book. *City of Savannah Municipal Archives.*

CHAIN OF TITLE/ RESIDENTS/ CENSUS RECORDS

1884
House is built by William Gammell for the Estate of John Gammell

1885 - 1887
(resident) Augustus C. Willcox (Paymaster at Savannah, Florida, & Western Railway)

June 1889
William A. Gammell dies in Charleston, South Carolina; he is buried in Magnolia Cemetery. The Gammell Estate, including 118 West Harris Street is transferred to his wife, Bessie, and eventually his three daughters, Bessie Gammell Woolsey, Annie Gammell Waring, and Ethel Ancrum Gammell.

1891 - 1893
(resident) Joseph Muir Lang (J.M. Lang Fertilizer)

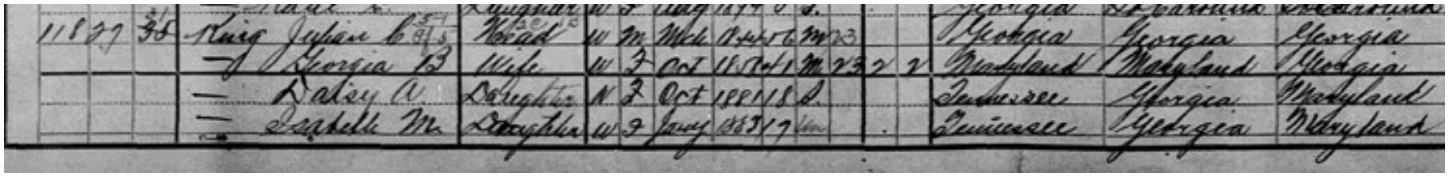
1895
(resident) Allan Bond (Bond, Harrison, & Co. - coal)

1896 - 1897
(resident) H. Wiley Johnson (lawyer) & Florence

**1897: change of address from 158 Harris Street to 118 W. Harris Street*

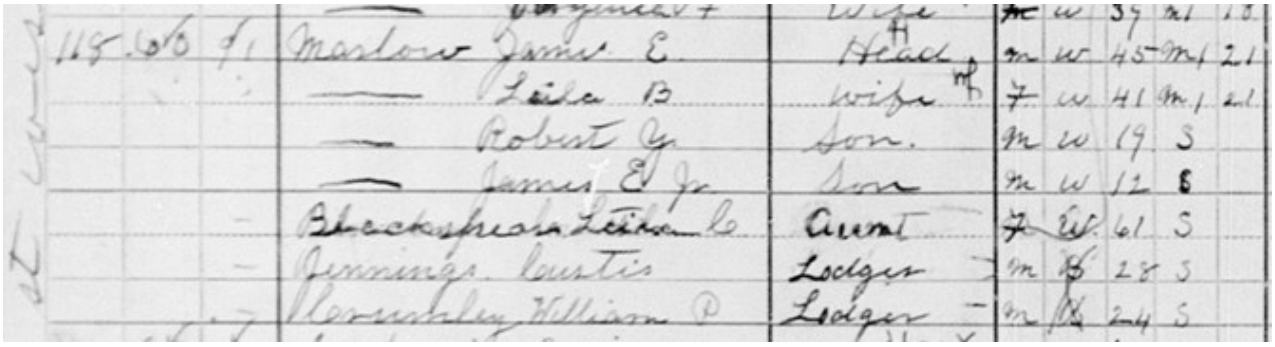
1898
(resident) Mrs. Rose Levy (widow of A.); (boarders) Louis A. and Moses M. Levy

1900 - 1901
(resident) Julian Clarence King (Clerk at John Flannery & Co. - cotton factors) & Georgia



1900 United States Census. *Familysearch.org.*

1902 - 1911
(resident) James Elliott Marlow (Clerk at Osborne-Marlow - hardware supplies) & Leila



1910 United States Census. *Familysearch.org.*

1911
(resident) Leila Marlow (widow) and Robert Y. Marlow (clerk at Osborne & Marlow)

1913 - 1914
(resident) James Eggleston Morrison (physician - work address listed as 118 W. Harris) & Daisy; (resident) George B. Sondley (Special Agent Interstate Cas. Co.) & Ida

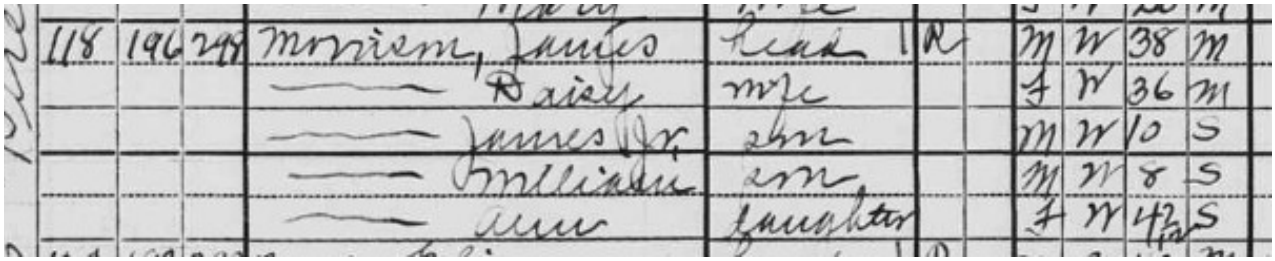
1915 - 1916
(resident) Dr. J.E. Morrison & Daisy; (resident) William Preston (conductor Seaboard Air Line) & Margaret

1917
(resident) Dr. J.E. Morrison & Daisy; (resident) B.L. Duffus (clerk at Atlantic Compress Co.) & Nancy

1919
(resident) Dr. J.E. Morrison Sr. & Daisy; (resident)

1920
(resident) Dr. J.E. Morrison Sr. & Daisy; (resident) J.W. Gregorie

**1920 United States Census: The "R" designates 'rents'*



1920 United States Census. *Familysearch.org.*

1921
(owner) Dr. J.E. Morrison Sr. & Daisy; (resident) Leo Z. DeLoach (Southern Auto Repair and Metal Co.) & Mattie B.

September 1921
James Eggleston Morrison purchases 118 W. Harris St. for $7,000 from the Gammell Estate after renting a portion of it as his residence and running his physician practice out of it since 1913.

1922
(owner) Dr. J.E. Morrison Sr. & Daisy

1923 - 1924
(owner) Dr. J.E. Morrison Sr. & Daisy; (resident) Mrs. Evelyn J. Skinner (widow W.H.) & Miss Elizabeth (stenographer at J.L. Budreau Co.)

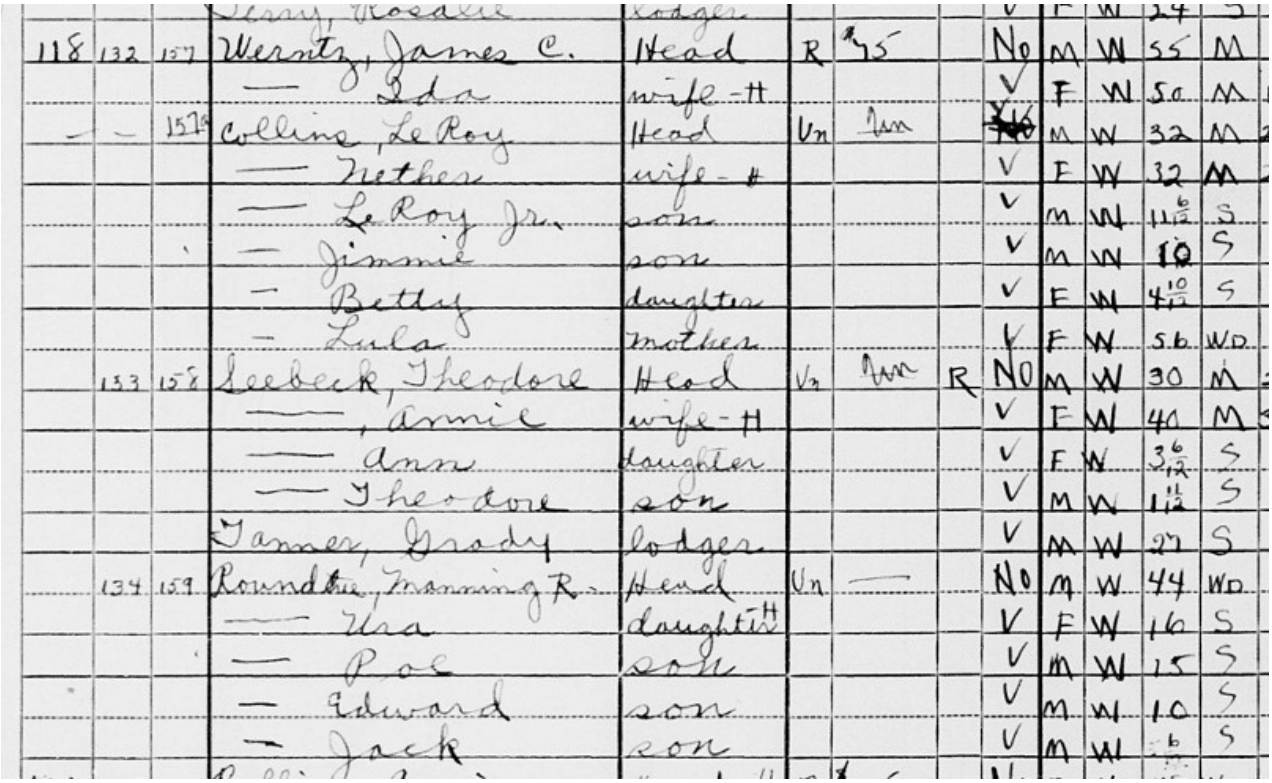
1925
(owner) Dr. J.E. Morrison Sr. & Daisy; (resident) Miles D. Cary (secretary E.C. Bagwell) & Lottie

1926 - 1927
(owner) Dr. J.E. Morrison Sr. & Daisy

1928

(owner) Dr. J.E. Morrison Sr., Daisy, James Jr., & William; (resident) Otis B. Harbuck (Bookkeeper Board of Education), Leila, & James

*Note: While Dr. Morrison lived in the home from 1913 - 1928, there was never more than one other family at the residence; it can be presumed this is because his physician practice utilized a floor of the home, most likely the garden level.



1930 United States Census. *Familysearch.org.*

1934

(resident) Edgar Pomar (City) & Bonnie; (resident) Mrs. Gertrude Shearhouse (saleswoman Adler's) & Miss Elizabeth (cashier Adler); (resident) W.J. Walker & Mozell

1937

(resident) Solomon M. Coleman (Union Bag) & Mary L.

1938

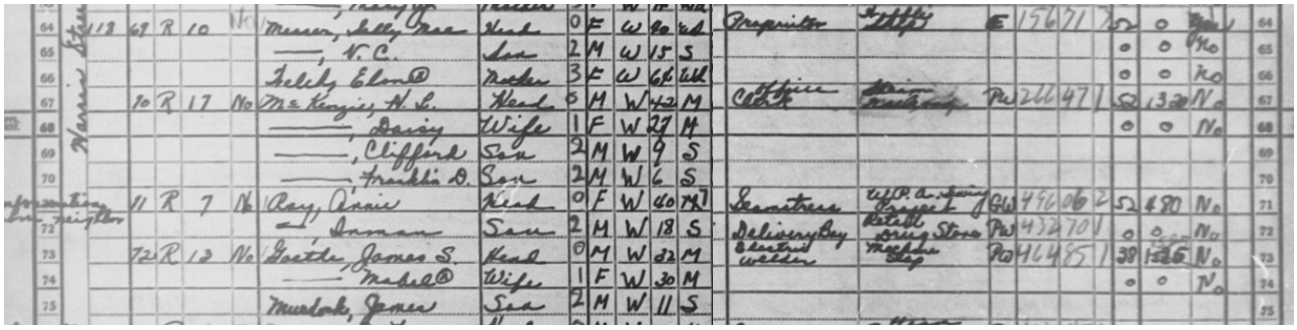
(resident) O.B. Chance (Coney Island Restaurant) & Alba; (resident) Perry Lamb (Espy Paving Co.) & Vivienne; (resident) Mrs. Gertrude Shearhouse (Cortez Cigar House); (resident) Edgar Pomar (City) & Bonnie

1939

(resident) Harold L. McKenzie (commissary Seaboard Air Line) & Daisy; (resident) Leland Bacon (Union Bag) & Doris; (resident) Mrs. Grace Fields (Grace's Beauty Shop)

1940 - 1942

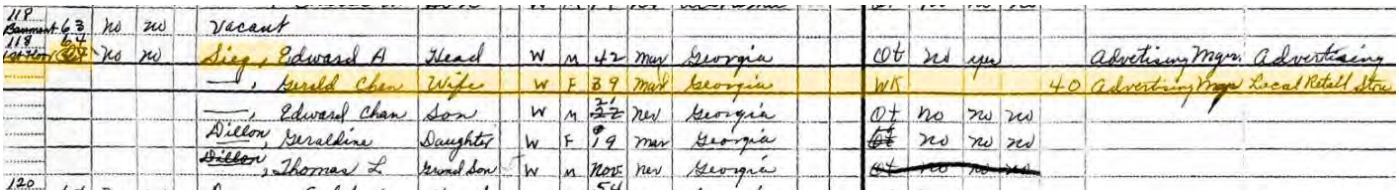
(resident) H.L. McKenzie (clerk Seaboard Air Line) & Daisy; (resident) Mrs. Sallie Mae Messer (Waffle Shop); (resident) James S. Goethe (U.S. Engineers) & Mabel



1940 United States Census. *Familysearch.org.*

July 1943

Gerald Chan Sieg purchases 118 W. Harris St. for $3,000 from the Independent Savings and Loan Company.



1950 United States Census. *Familysearch.org.*

1954

(owner) Gerald Chan Sieg (Advertising Agent - Fine's) & Edward A. (language teacher); (resident) Thomas L. Dillon (United States Air Force) & Geraldine S. – son-in-law and daughter of the owner

1943 - 2022

Gerald Chan Sieg and her heirs own 118 W. Harris St., and it remains divided into three apartments

1954 advertisement from Savannah City Directory showing Gerald Chan Sieg's place of employment, Fine's, where she was the Advertising Manager. *Digital library of Congress.*

March 2022

House of Chan, LLC (represented by Daphne D. Murphy) sells 118 West Harris Street to The George Theodore Carroll Revocable Trust.

December 2023

The George Theodore Carroll Revocable Trust transfers 118 West Harris Street to the West Harris Group, LLC.

2025

The current owner plans to restore the home to a single-family residence after 110 years of being divided into either 2 or 3 apartments.

GERALD CHAN SIEG

The woman who purchased 118 West Harris Street in 1943 was the first Chinese American poet in Savannah and was born to the first Chinese American family in Savannah, the Chans.

> *"Many of her poems depict the early Chinese immigrants' experience in America, especially in the South. Her poems provide a window into the world of Chinese immigrants: from dealing with loneliness, homesickness, nostalgia, racial discrimination in the early days to embracing family life, community well-being, beautiful southern landscape, and becoming contributing members of the larger Savannah society."*
>
> *- Weihue Zhang, from "Historical Record of Chinese Americans/ A Laundryman's Daughter, Savannah's Poet."*

A 1920s photograph of Gerald Chan Sieg. Shared by Alexakachan. *Findagrave.com.*

Mrs. Sieg had an award named after her by the Poetry Society of Georgia in 1978. In an article written to commemorate this event, Krys Keller wrote this of Sieg: *"Diminutive but by no means retiring, delicate but hardly shy, Gerald Chan Sieg is the embodiment of the articulate, cultured, self-made woman. ...she has been a suffragette since the age of seven."*

Mrs. Sieg, christened Geraldine, explained that she hated her name and chose to be called Gerald, enjoying the fact that it sounded more masculine and possibly caused confusion. Gerald Chan Sieg died in Savannah on June 30, 2005, and is buried in Bonaventure Cemetery. Her children, Edward Chan Sieg and Jerry Sieg Dillon, inherited the home.

A 1950 photograph of Gerald Chan Sieg with her husband, Edward, in 1950 (the couple on the left). From "Historical Record of Chinese Americans/ A Laundryman's Daughter, Savannah's Poet" by Weihue Zhang. *Usdandelion.com.*

BUILDING EVOLUTION

118 and 120 West Harris Street were built together as a duplex on the middle and eastern part of Lot 15, Pulaski Ward, in 1884 by William Gammell for the John Gammell Estate. The mid-1850s were a prosperous time for Savannah - the City had extended the Central of Georgia Railroad lines throughout the State and was exporting more cotton than Charleston. Many wealthy residents preferred to rent at this time, and investors catered to this desire by building fine row houses in the newly laid-out wards in the South Common.

Mary Morrisson discusses this in the Introduction of her book, Historic Savannah, when she notes that Savannah's architecture after 1865 fits a particular mold, *"The cast-iron and wrought-iron that gave the city so much distinction remained in high quality and were widely used. The typical elevation is of two stories on a high basement, three bays in width, with a high, covered stoop leading to the entrance at the end of the bays. The roof is visually flat and does not appear in the elevation composition. The cornice is now bracketed, and is sometimes now of sheet metal. Window lintels and sills are often of cast-iron but occasionally of brownstone."*

This description precisely describes the building components of 118 West Harris Street as it was built in 1884, and how it still appears today.

118-120 West Harris Street, 2025.
Brooke Mollenkamp.

Pre-1890

BARTOW HOUSE AND GAMMELL DUPLEX

In 1890, the wooden fence railings were removed from Pulaski Square and were replaced with granite curbing according to the Annual Report of the Mayor of the City of Savannah. Therefore, one can conclude that this photograph was taken within five years of 118 West Harris Street being constructed because the wood fences are still in place along the perimeter of the square. The front facade remains largely unchanged. Pulaski Square has gone through much transformation since this photograph was taken.

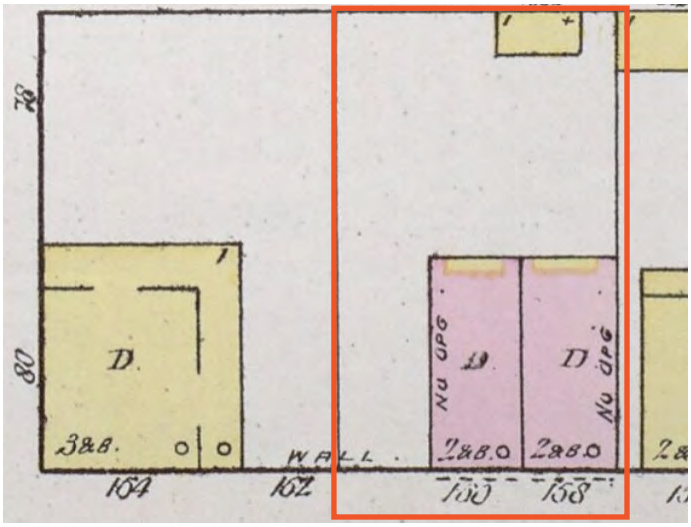
118-120 West Harris Street. "Pulaski Square," undated. *Courtesy of the Georgia Historical Society.*

SANBORN FIRE INSURANCE MAPS

The Sanborn Insurance Maps are specialized maps created in the late 19th - 20th century by the Sanborn Fire Insurance Company to depict very specific information that insurance companies required to accurately insure a building. 118 West Harris Street (158 Harris) can be found on these maps in 1888, 1889, 1916, 1953, and 1973; note the different addresses and that no major changes have been made to the exterior of the structure. There is a small outbuilding at the rear of the property that was extended on the 1916 map.

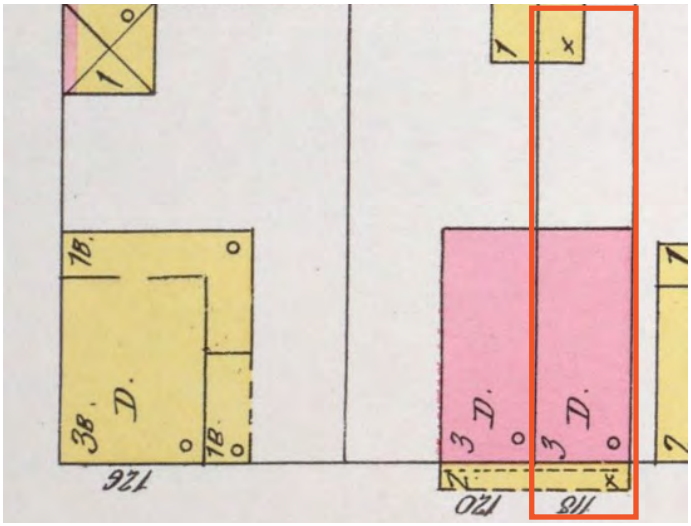
Note that "D" stands for Dwelling.

1888



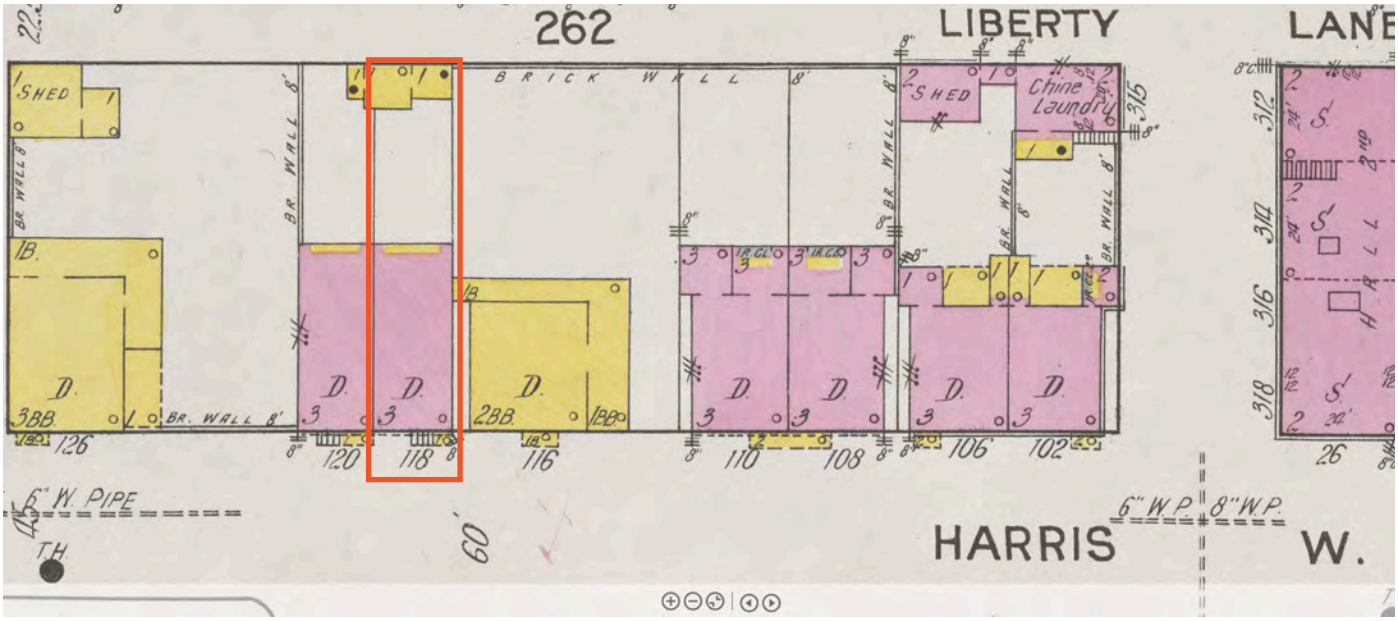
1888 Sanborn Fire Insurance Map. *Digital Library of Georgia.*

1889



1889 Sanborn Fire Insurance Map. *Digital Library of Georgia.*

1916

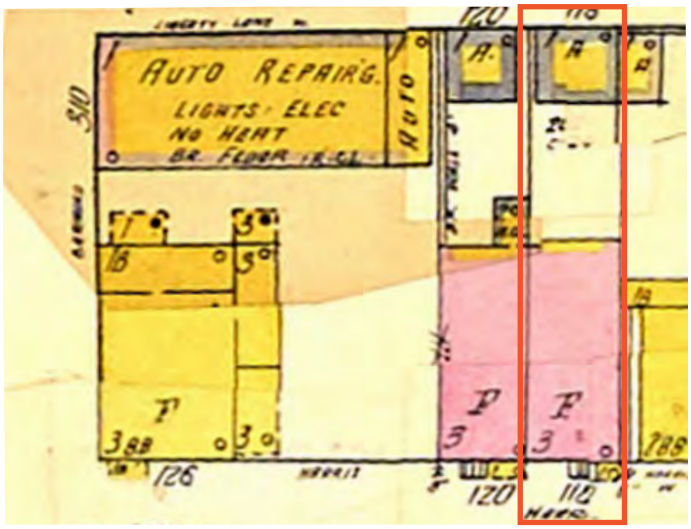


1916 Sanborn Fire Insurance Map. *Digital Library of Georgia.*

Note that "F" stands for Flat.

The 1916 Sanborn Map with pasted-in changes of the property through 1953 shows a garage is present in the rear; possibly new when comparing the shape to the 1916 map.

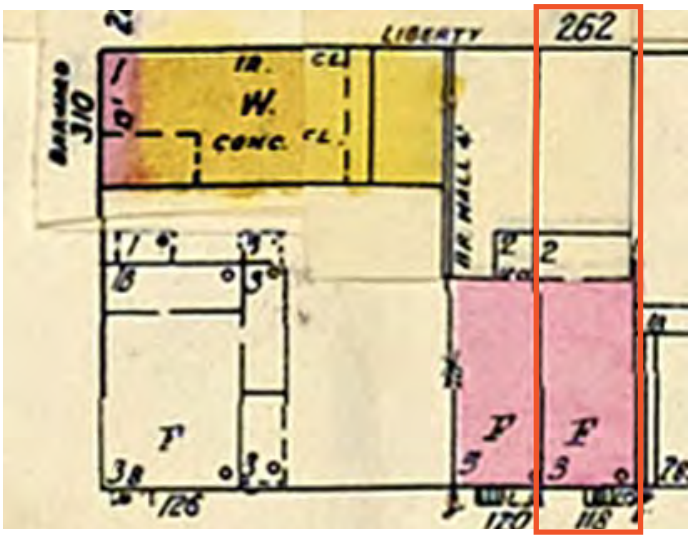
1916 with paste-ins through 1953



1916 - 1953 Sanborn Fire Insurance Map. *Courtesy of City of Savannah Municipal Archives.*

The 1955 Sanborn Map with pasted-in changes of the property through 1973 shows the garage is no longer present, but there is an addition along the entire back of the property.

1955 with paste-ins through 1973

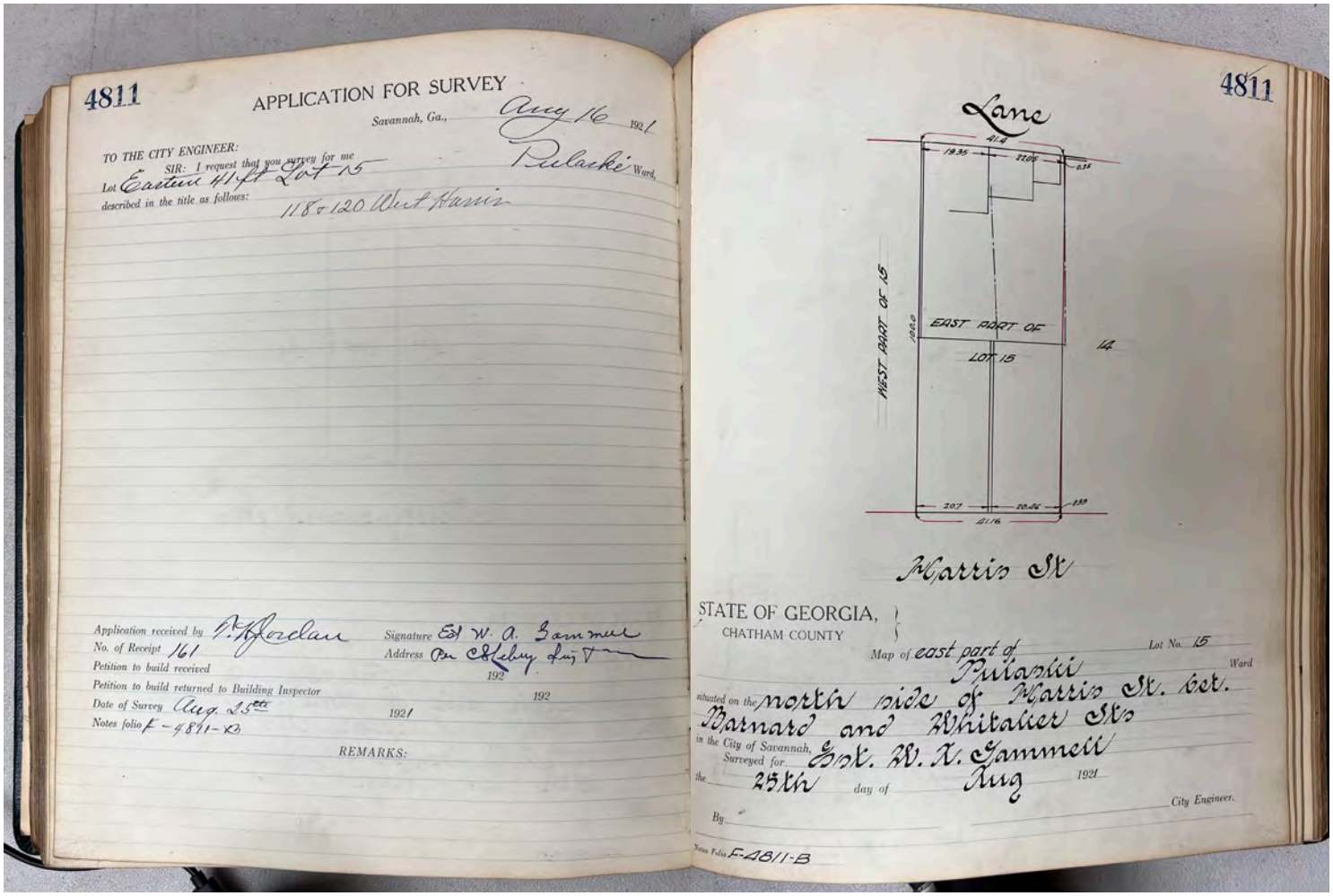


1955 - 1973 Sanborn Fire Insurance Map. *Courtesy of City of Savannah Municipal Archives.*

1921

CITY INSPECTION

In anticipation of selling 118 and 120 West Harris Street separately, an application to have Lot 15 surveyed was completed on August 16, 1921, by the Estate of William A. Gammell; the property was then inspected on August 25, 1921. *Note that there were no exterior changes. Also, note that the Gammell Duplex was not built on the entirety of Lot 15.*



4811

APPLICATION FOR SURVEY

Savannah, Ga., Aug 16 1921

TO THE CITY ENGINEER:
SIR: I request that you survey for me
Lot Eastern 41 ft Lot 15 Pulaski Ward,
described in the title as follows:
118 & 120 West Harris

Application received by T. Hfordan
No. of Receipt 161
Petition to build received 192
Petition to build returned to Building Inspector 192
Date of Survey Aug. 25th 1921
Notes folio F-4811-D

Signature Est W. A. Gammell
Address Oglethorpe Ave W

REMARKS:

4811

Lane

41.4
19.35 22.06 .24

WEST PART OF 15
100.0
EAST PART OF LOT 15
14
20.7 20.24 .19
41.16

Harris St

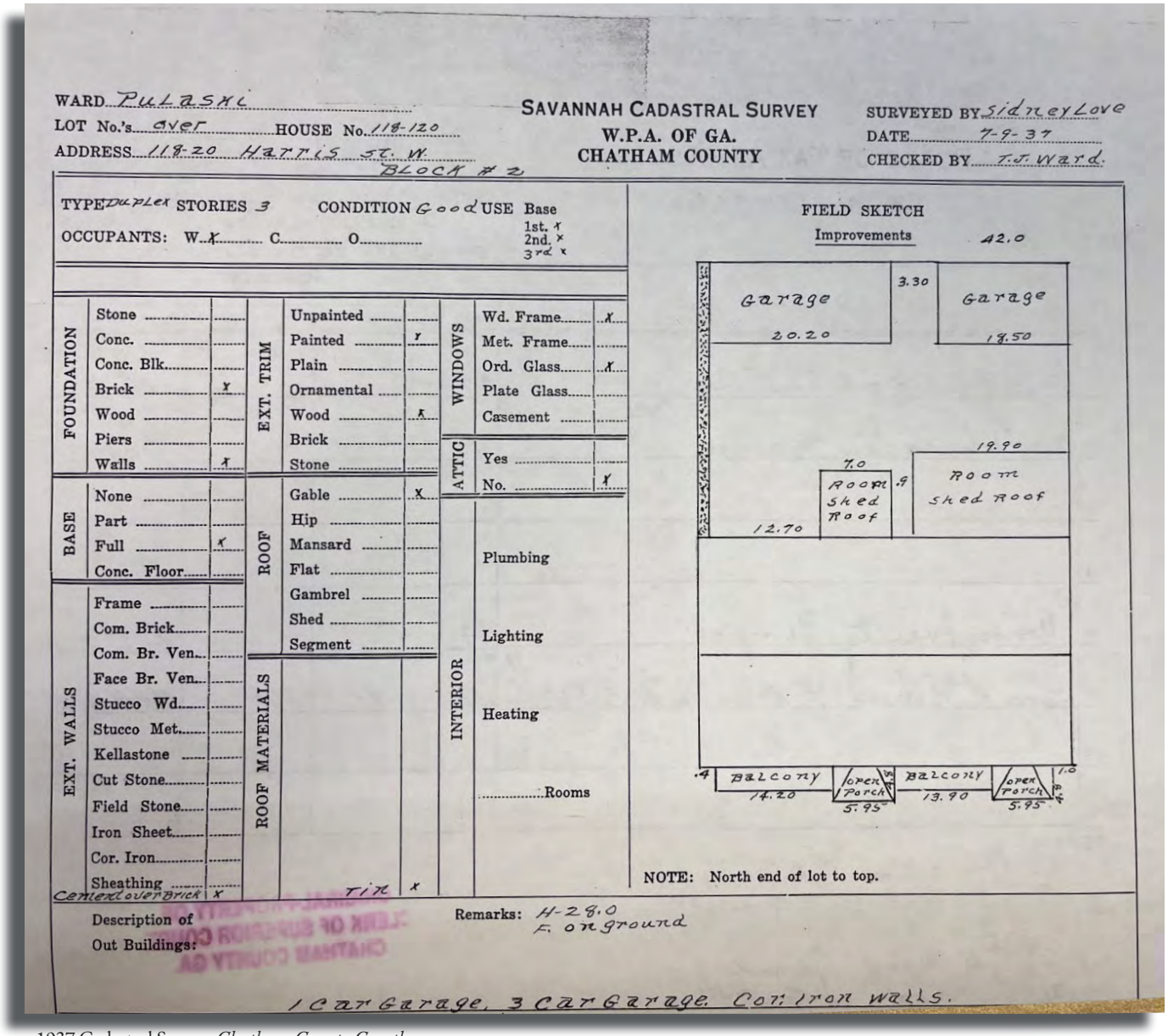
STATE OF GEORGIA,
CHATHAM COUNTY

Map of east part of Pulaski Ward
Lot No. 15
situated on the north side of Harris St. bet. Barnard and Whitaker Sts
in the City of Savannah,
Surveyed for Est. W. A. Gammell
the 25th day of Aug 1921
City Engineer.
By
Notes Folio F-4811-B

Private Property Surveys Index. s.v. "Pulaski Ward, East part of Lot 15." *Courtesy of the City of Savannah Municipal Archives.*

1937
CADASTRAL SURVEY

The Works Progress Administration, a public works program established during the Great Depression, recorded property boundaries and building details in cadastral surveys. 118 West Harris Street was one of the properties surveyed. Note the addition of a shed-like structure on the rear of the home labeled 'room - shed roof' that runs the entirety of the exterior back wall and a stand-alone garage.



WARD Pulaski
LOT No.'s over HOUSE No. 118-120
ADDRESS 118-20 Harris St. W.
BLOCK # 2

SAVANNAH CADASTRAL SURVEY
W.P.A. OF GA.
CHATHAM COUNTY

SURVEYED BY Sidney Love
DATE 7-9-37
CHECKED BY T.J. Ward.

TYPE Duplex STORIES 3 CONDITION Good USE Base
OCCUPANTS: W. X C. O.
1st. X
2nd. X
3rd X

FOUNDATION		EXT. TRIM		WINDOWS	
Stone		Unpainted		Wd. Frame	X
Conc.		Painted	X	Met. Frame	
Conc. Blk.		Plain		Ord. Glass	X
Brick	X	Ornamental		Plate Glass	
Wood		Wood	X	Casement	
Piers		Brick			
Walls	X	Stone		ATTIC	
				Yes	
BASE		ROOF		No.	X
None		Gable	X		
Part		Hip			
Full	X	Mansard			
Conc. Floor		Flat			
		Gambrel			
EXT. WALLS		Shed			
Frame		Segment			
Com. Brick					
Com. Br. Ven.		ROOF MATERIALS			
Face Br. Ven.					
Stucco Wd.					
Stucco Met.					
Kellastone					
Cut Stone					
Field Stone					
Iron Sheet					
Cor. Iron					
Sheathing					
Cement over Brick	X	Tin	X		

INTERIOR
Plumbing
Lighting
Heating
Rooms

FIELD SKETCH
Improvements
42.0
Garage 20.20
3.30
Garage 19.50
19.90
7.0
Room Shed Roof
.9
12.70
Room Shed Roof
.4
Balcony 14.20
Open Porch 5.95
Balcony 13.90
Open Porch 5.95
1.0

NOTE: North end of lot to top.

Description of Out Buildings: 1 Car Garage, 3 Car Garage. Cor. Iron Walls.

Remarks: H-29.0 F. on ground

1937 Cadastral Survey. *Chatham County Courthouse.*

1950s

DOWNTOWN DECLINE

The affordability of automobiles, the paving of roads, and the construction of new homes in the suburbs south of downtown Savannah led to a decline in the historic areas of Savannah. People began to buy homes around Oglethorpe's famous squares with only one intent - to demolish the historic homes to make way for parking. In the 1930s, three squares were paved over to create Highway 17, and there was even talk of doing away with the squares to allow for better traffic flow. Some squares were treated like dirt roads by emergency vehicles that could not make the tight 90-degree turns at high speed around the corners of the squares.

The adjacent photo is of a dirt road through Pulaski Square with a Historic Savannah Foundation sign proclaiming the Redevelopment Project of Pulaski Square, Jones Street. This was taken from the corner of West Harris and Barnard Streets, looking south.

Pulaski Square, undated. *Historic Savannah Foundation.*

1960s
WARD SURVEYS

In the 1960s, the Historic Savannah Architectural Inventory was completed under the leadership of the Historic Savannah Foundation. This survey documented the historic buildings and sites throughout Savannah's National Historic Landmark District. 118 West Harris Street was included in the survey as a contributing structure and was noted to be in 'good'

118-120 West Harris Street, undated. *Historic Savannah Foundation.*

condition, of 'great' importance to the neighborhood, and with 'none to little' alteration of the original design.

BUILDING DATA SHEET - HISTORIC SAVANNAH INVENTORY

Card No. 23 | Color Code

Street and Number	Ward	Lot
118 W. Harris St.	PULASKI	E. part 15

Present Owner	Original Owner	Architect or Builder
Mrs. Gerald Chan Seig	W.T. CAMMELL Est. JOHN CAMMELL	

Original Use	Assessed Value			Assessors File No.
Dwellings(semi-detached)	Land 501	Building 4505	Total 5006	19

No. of Stories	Present Use
Basement x 1 x 2 3	Two-family dwelling

Year Built	Material
c. 1880/884 Altered ☐	Brick, stucco finish

STYLE OF ARCHITECTURE

Early Republic ☐ Victorian ☐
Greek Revival ☐ Not Classified ☐
☐

Remarks

Part of same structure as 120 W. Harris St. Wood cornice and brackets. Windows to floor level, cast iron balustrade across front. High entrance stoop: wood portico, porch and steps on brick piers.

History: Built by John Gammill.

Faces PULASKI Square.

Intrusion on the neighborhood: Yes ☐ No ☐

OTHER DOCUMENTATION:

SAN NOV. 22, 1884 4/2

EVALUATION

HISTORICAL SIGNIFICANCE

National ☐
State ☐
Community ☐

ARCHITECTURAL SIGNIFICANCE AS AN EXAMPLE OF ITS STYLE

Exceptional ☐
Excellent ☐
Good ☒
Fair ☐
Poor ☐

10

IMPORTANCE TO NEIGHBORHOOD

Great ☒
Moderate ☐
Minor ☐

15

DESECRATION OF ORIGINAL DESIGNS

None or little ☒
Moderate amount ☐
Considerable ☐

8 | 33

PHYSICAL CONDITIONS

	Good	Fair	Poor
Structures	☒	☐	☐
Grounds	☐	☐	☒
Neighborhood	☐	☒	☐
Relation to green	☒	☐	☐

16 | Total Score 59

Date	Surveyed by	Checked by

118 West Harris Street, circa 1960s. Historic Savannah Inventory Ward Notebooks. *Courtesy of City of Savannah Municipal Archives.*

1965

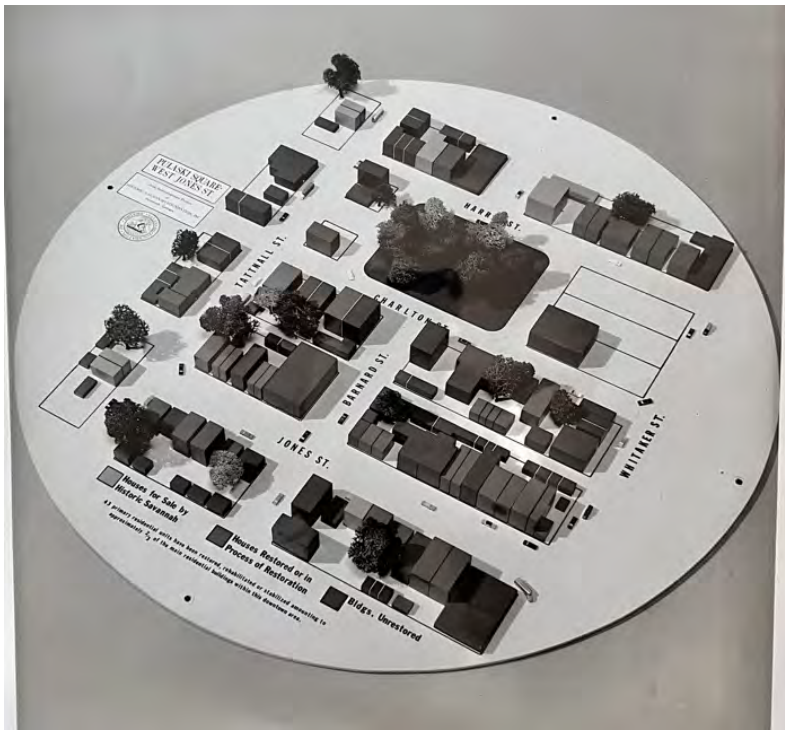
PULASKI SQUARE REDEVELOPMENT PROGRAM

The Historic Savannah Foundation (HSF) began purchasing homes in the Pulaski Ward for the purpose of stabilizing and reselling them. They hoped to encourage home buyers to purchase homes in the Historic District, thus sparking a revitalization of the area. HSF invested $38,000 from their revolving fund, helped facilitate over $1 million in private restoration, and revived 13 acres of Savannah's National Historic Landmark District.

An HSF photo of a diagram of Pulaski Square notes the:

1. Houses for Sale by Historic Savannah
2. Houses Restored or in the Process of Restoration
3. Buildings Unrestored.

118 West Harris Street is in the "Restored" category. This diagram displays no garage in the rear of 118 West Harris Street.



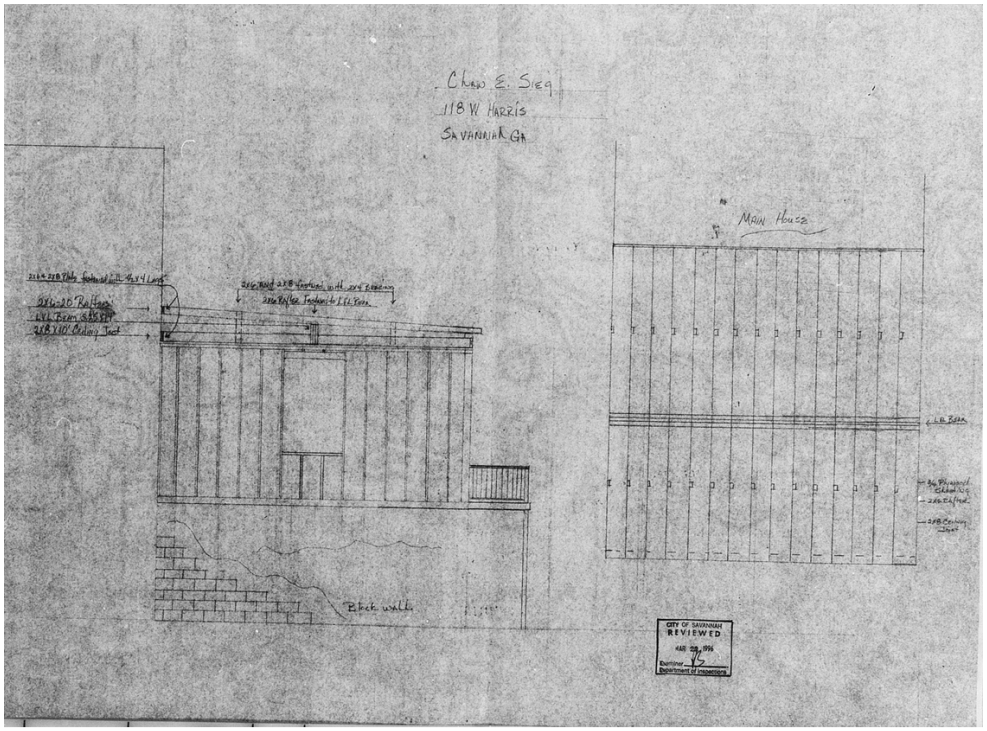
"Pulaski Square," circa 1960s. *Historic Savannah Foundation.*

1960s and 1996

118 WEST HARRIS STREET REAR ADDITION

The rear addition first appears on the Sanborn Map with paste-ins through 1973. In 1996, Building Permit #96-1734B was issued for 118 West Harris Street. The description of work reads: 'Addendum to Permit #96-0021B, Changing roof structure - NO; Exterior Changes'; under this Master Building Permit, there is also an Electrical Permit (#96-0021E: description: 'Install electrical outlets') and Mechanical Permit (#96-4514M: 'Install central heat and air and all duct work'). Property Ownership is attributed to both Gerald Chan Sieg and Edward Sieg. There is also an accompanying Plan Drawing of the rear addition.

This drawing does not account for the present 'porch' with handrail and access door that exists above the addition, and there were no other permits that account for it.

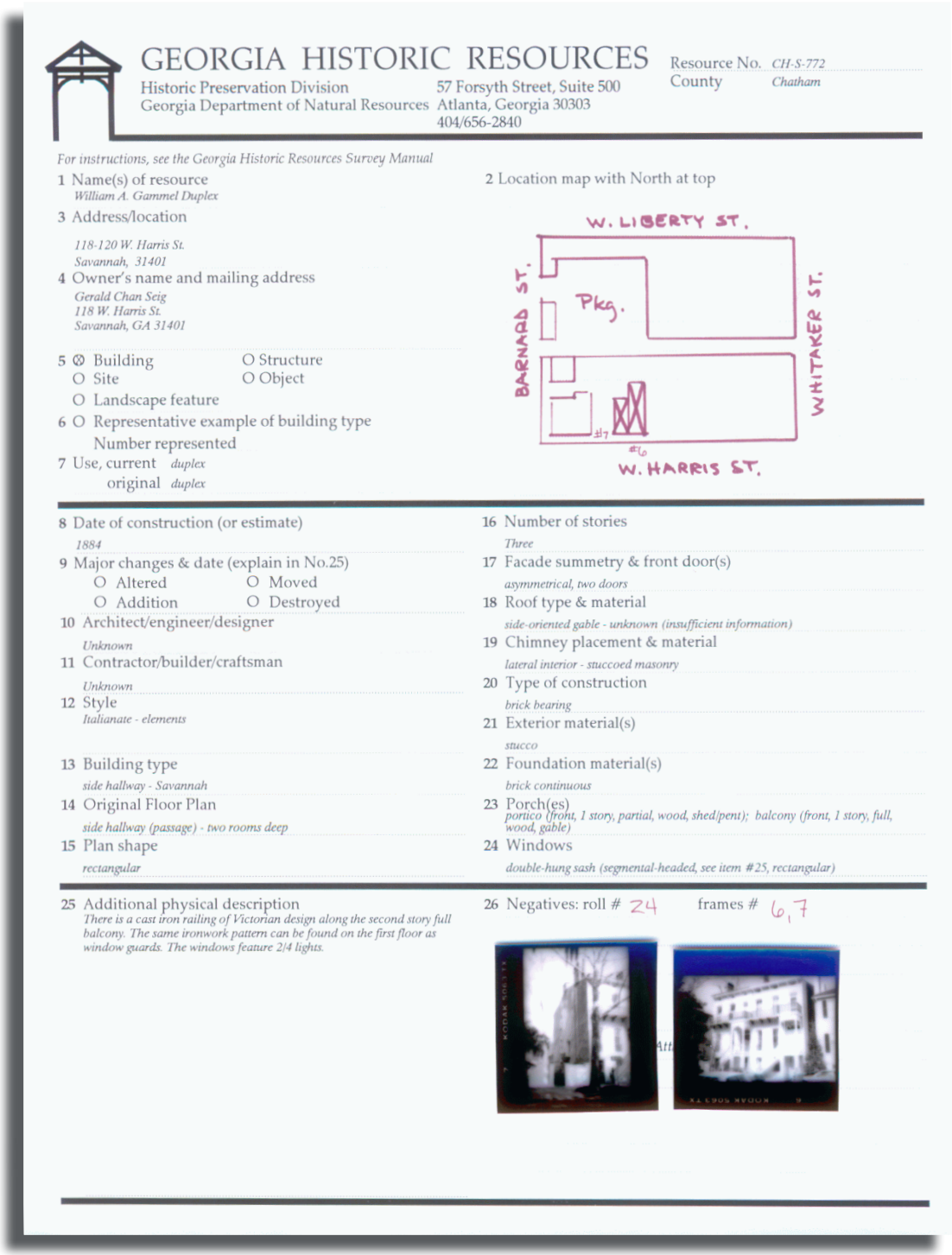


Building permit for 118 West Harris Street, 1996. *City of Savannah Development Services.*

1996 – 1998

GEORGIA HISTORIC RESOURCES SURVEY

This historic preservation survey confirms the addition and states that the property was going through a renovation when surveyed. By the time of this survey, the front porch had been altered with many of the decorative wood elements replaced with more generic columns, balusters, etc.



GEORGIA HISTORIC RESOURCES

Historic Preservation Division
Georgia Department of Natural Resources
57 Forsyth Street, Suite 500
Atlanta, Georgia 30303
404/656-2840

Resource No. CH-S-772
County Chatham

For instructions, see the Georgia Historic Resources Survey Manual

1 Name(s) of resource
William A. Gammel Duplex

3 Address/location
118-120 W. Harris St.
Savannah, 31401

4 Owner's name and mailing address
Gerald Chan Seig
118 W. Harris St.
Savannah, GA 31401

5 ⊗ Building O Structure
O Site O Object
O Landscape feature

6 O Representative example of building type
Number represented

7 Use, current *duplex*
original *duplex*

2 Location map with North at top

8 Date of construction (or estimate)
1884

9 Major changes & date (explain in No.25)
O Altered O Moved
O Addition O Destroyed

10 Architect/engineer/designer
Unknown

11 Contractor/builder/craftsman
Unknown

12 Style
Italianate - elements

13 Building type
side hallway - Savannah

14 Original Floor Plan
side hallway (passage) - two rooms deep

15 Plan shape
rectangular

16 Number of stories
Three

17 Facade summetry & front door(s)
asymmetrical, two doors

18 Roof type & material
side-oriented gable - unknown (insufficient information)

19 Chimney placement & material
lateral interior - stuccoed masonry

20 Type of construction
brick bearing

21 Exterior material(s)
stucco

22 Foundation material(s)
brick continuous

23 Porch(es)
portico (front, 1 story, partial, wood, shed/pent); balcony (front, 1 story, full, wood, gable)

24 Windows
double-hung sash (segmental-headed, see item #25, rectangular)

25 Additional physical description
There is a cast iron railing of Victorian design along the second story full balcony. The same ironwork pattern can be found on the first floor as window guards. The windows feature 2/4 lights.

26 Negatives: roll # 24 frames # 6, 7

118 - 120 West Harris Street, 1996 - 1998. *Georgia's Natural, Archaeological, and Historic Resources GISs.*

2002 – 2025

RECENT BUILDING PERMITS AND APPLICATIONS

Permit # 02-2110E: Description: combine three services into one;
Issued date: 7/31/2002; Passed: 8/27/2002

Plan # 07-3343E: Description: relocate meter 12" from neighbors;
Applied Date: 9/18/17 Status: Withdrawn

Plan # 25-003090-COA: (Certificate of Appropriateness) Description: roof/ windows/ doors;
Applied Date: 6/12/2025 Status: Under Review

"118-120 West Harris Street, Savannah, GA," undated. *Courtesy of Georgia Historical Society.*

Taken in Pulaski Square near 118 W. Harris St.

PHOTOS OF INTEREST

Taken from Barnard St in Pulaski Square looking East. The new DeSoto Hotel was under construction in the mid-1960s.

Historic Savannah Foundation.

Corner of Barnard and Harris Streets looking west; taken from the parking lot across the street from 118 W. Harris St.

Historic Savannah Foundation.

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RESIDENTIAL ADDITION

DRAWINGS PREPARED FOR:

FELICIA AND THEODORE CARROLL
118 WEST HARRIS STREET
SAVANNAH, GA 31401
THEODORE CARROLL
PHONE: 203 249 0337
EMAIL: CARROLLTHEODORE@GMAIL.COM

DRAWING INDEX

SHEET#	SHEET NAME	HDBR 7/9/25	HDBR 8/20/25	HDBR 9/17/25	REV 1
CVR	COVER	<	<	<	
D101	FIRST AND SECOND DEMO PLAN	<	<	<	
D102	THIRD FLOOR & ROOF DEMO PLAN	<	<	<	
D201	DEMO ELEVATIONS	<	<	<	
D202	DEMO ELEVATIONS	<	<	<	
A100	SITE PLAN	<	<	<	
A101	FIRST AND SECOND FLOOR PLAN	<	<	<	
A102	THIRD FLOOR & ROOF PLAN	<	<	<	
A201	PROPOSED EXTERIOR ELEV	<	<	<	
A202	PROPOSED EXTERIOR ELEV	<	<	<	
A301	WALL SECTIONS	<	<	<	
A401	DETAILS / WINDOWS	<	<	<	
A601	LANE PERSPECTIVES	<	<	<	
A602	BIRDSEYE PERSPECTIVES	<	<	<	
A603	RENDERING	<	<	<	

PROJECT TEAM

ARCHITECT

ROSE ARCHITECTS
311 MAUPAS AVE
SAVANNAH, GA 31401
KEVIN ROSE
PHONE: 912-484-5967
EMAIL: KEVIN@ROSEARCH.CO

PRESERVATION

ETHOS PRESERVATION
PO BOX 3125
SAVANNAH, GA 31402
ELLEN HARRIS
KIM CAMPBELL
PHONE: 912.844.2703
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GENERAL CONTRACTOR

ELLSWORTH DESIGN BUILD
1810 MILLS B LN BLVD,
SAVANNAH, GA 31405
ABIGAIL POWELL
PHONE: (912) 308-7553
EMAIL: ABIGAIL.POWELL@ELLSWORTHDESIGNBUILD.COM

PROJECT DESCRIPTION

THE PROJECT IS COMPRISED OF A FULL RENOVATION OF THE EXISTING HISTORIC STRUCTURE, THE REMOVAL OF THE 1996 ADDITION ON THE NORTH FAçADE, AND AN ADDITION TO THE NORTH FAçADE WHICH PROVIDES A CARRIAGE HOUSE FORM AND A NARROW CONNECTOR. THE PROJECT ALSO ADDS AN ELEVATOR FOR FULL ADA COMPLIANT ACCESS TO ALL FLOORS. THE ADDITION RESPECTS THE RHYTHM AND LINE OF CONTINUITY OF NEIGHBORING STRUCTURES AND ALSO REVEALS 66% OF THE EXISTING FAçADE WHICH WAS COVERED UP BY THE 1996 ADDITION. ADDITIONALLY, THIS PROJECT WILL RESTORE THE HISTORIC FACADES AND HISTORIC INTERIOR AND EXTERIOR FABRIC AS A PRESERVATION TAX CREDIT PROJECT UNDER THE STRICT GUIDELINES AND REVIEW OF THE NATIONAL PARK SERVICE (NPS) AND STATE HISTORIC PRESERVATION OFFICE (SHPO.)

ROSE ARCHITECTS

STATE OF GEORGIA
KEVIN F. ROSE
CERTIFICATE NO. 012435
REGISTERED ARCHITECT

PRIVATE RESIDENCE
118 W. HARRIS ST.
SAVANNAH, GA 31401

Revisions

COVER

2502
Author Checker
8.20.25

CVR

CARRIAGE HOUSE CONNECTORS

ROSE ARCHITECTS

STATE OF GEORGIA
KEVIN F. ROSE
CERTIFICATE NO. 012485
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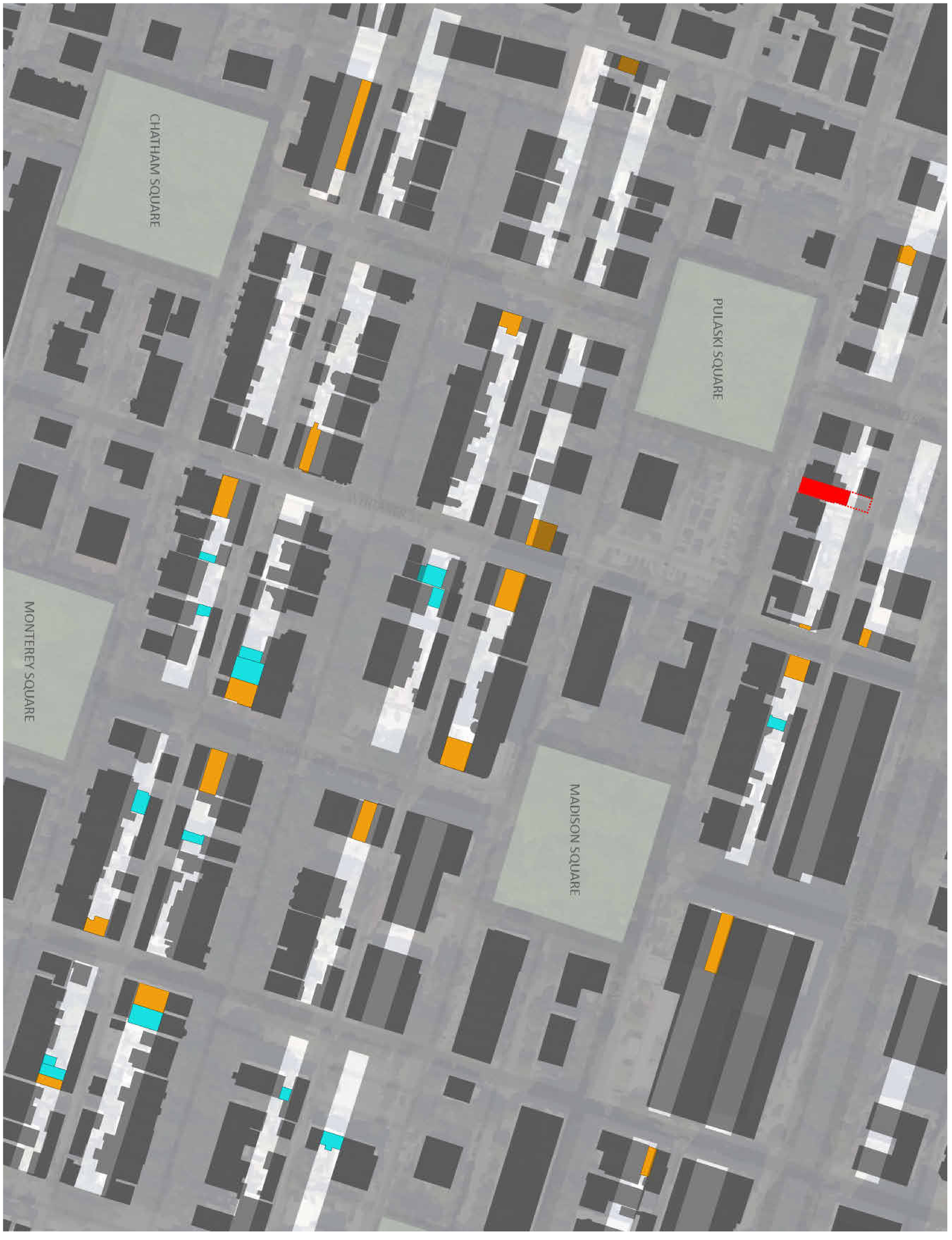
PRIVATE RESIDENCE
118 W. HARRIS ST.
SAVANNAH, GA 31401

Revisions

CONNECTION DIAGRAM
2502
JK KR
8.20.25

G100

CARRIAGE HOUSE COURTYARDS



G101

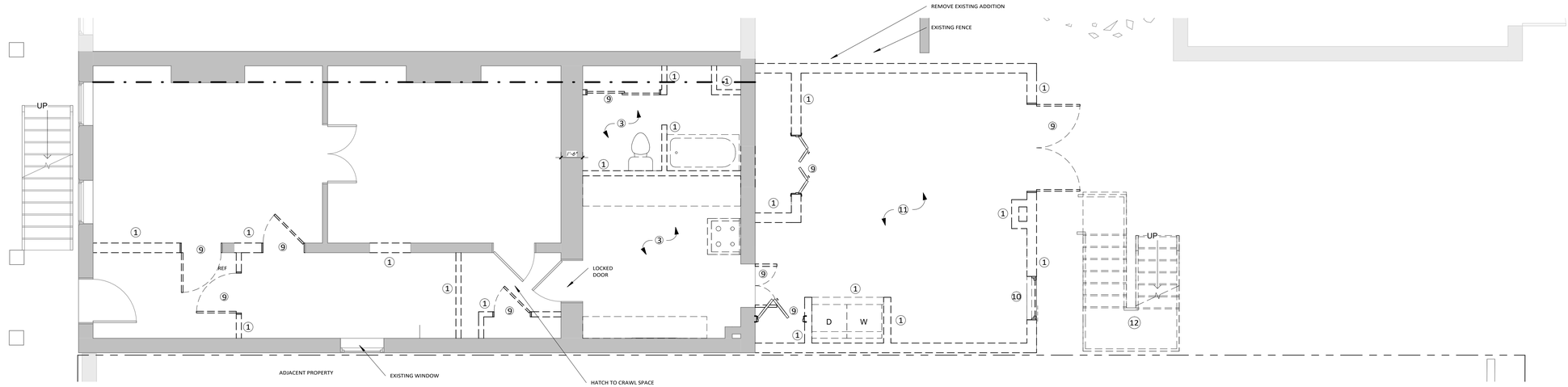
COURTYARD DIAGRAM
2502
JK
KR
8.20.25

Revisions

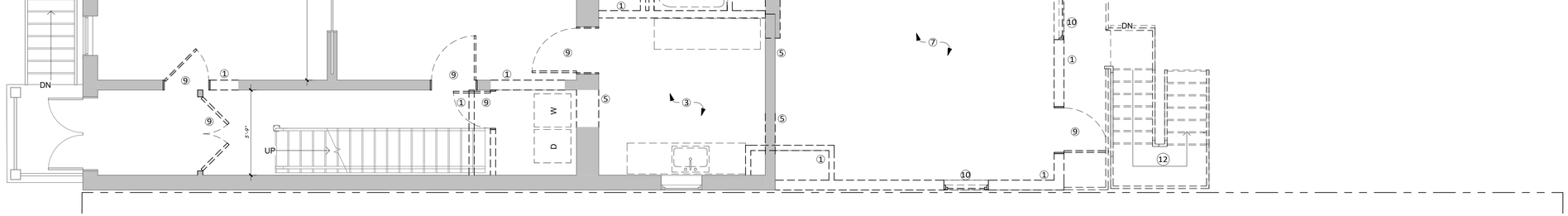
PRIVATE RESIDENCE
118 W. HARRIS ST.
SAVANNAH, GA 31401

STATE OF GEORGIA
KEVIN F. ROSE
REGISTERED ARCHITECT

ROSE ARCHITECTS



1 D101 1ST FLOOR DEMO
1/4" = 1'-0"



2 D101 2ND FLOOR DEMO
1/4" = 1'-0"

GENERAL DEMO NOTES

1 ALL EXISTING CONDITIONS SHOWN ARE FOR REFERENCE ONLY AND ARE TO BE FIELD VERIFIED BY THE CONTRACTOR.

2 REMOVED MATERIALS, UNLESS NOTED OTHERWISE, BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE IN ACCORDANCE WITH ALL APPLICABLE LAWS, CODES, AND REGULATIONS. VERIFY WITH OWNER

3 THE CONTRACTOR SHALL USE QUALIFIED, EXPERIENCED PERSONNEL FOR REMOVAL AND DEMOLITION OPERATIONS. REMOVAL AND DEMOLITION OPERATIONS SHALL BE PERFORMED IN A CAREFUL AND ORDERLY MANNER TO AVOID HAZARDS TO PERSONS, DAMAGE TO PROPERTY, AND THE SPREADING OF DUST AMD FLYING PARTICLES.

4 THE EXACT EXTENT OF DEMOLITION TO BE DONE SHALL BE VERIFIED AT THE SITE. DETERMINE THE NATURE AND EXTENT OF DEMOLITION THAT WILL BE NECCESARY BY COMPARING THE DRAWINGS WITH THE EXIST CONDITIONS.

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7 DO NOT REMOVE MORE OF THE EXISTING STRUCTURE THAN NECESSARY. DO NOT DAMAGE, MAR, OR DEFACE THE REMAINING STRUCTURE OR MATERIALS TO BE REUSED.

8 THE CONTRACTOR SHALL PROVIDE SHORING IN ALL LOCATIONS WHERE EXIST CONSTRUCTION TO REMAIN WILL BE AFFECTED BY DEMOLITION.

9 ALL EXISTING ITEMS TO REMAIN SHALL BE PROTECTED DURING
DEMOLITION AND NEW CONSTRUCTION.

10 IN AREAS OF WORK, AT EXISTING WALLS TO REMAIN WHERE OUTLETS, ETC. ARE REMOVED, PATCH AND REPAIR WALL TO MATCH EXISTING WALL TEXTURE. PREPARE WALL TO RECEIVE NEW FINISHES.

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DEMO KEY NOTES

1. REMOVE EXISTING PARTITION AND FINISHES
2. REMOVE EXISTING ELECTRICAL FEEDS, RECEPTACLES, SWITCHES, AND LIGHT FIXTURES
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11. REMOVE EXISTING SLAB AND FOUNDATION
12. REMOVE STAIR IN ITS ENTIRETY

DEMO LEGEND

- PORTION OF WALL TO REMAIN
- PORTION OF WALL TO BE REMOVED
- PORTION OF FLOOR TO BE REMOVED
- PORTION OF CEILING TO BE REMOVED

PROJECT DEMO NOTES

ROSE ARCHITECTS

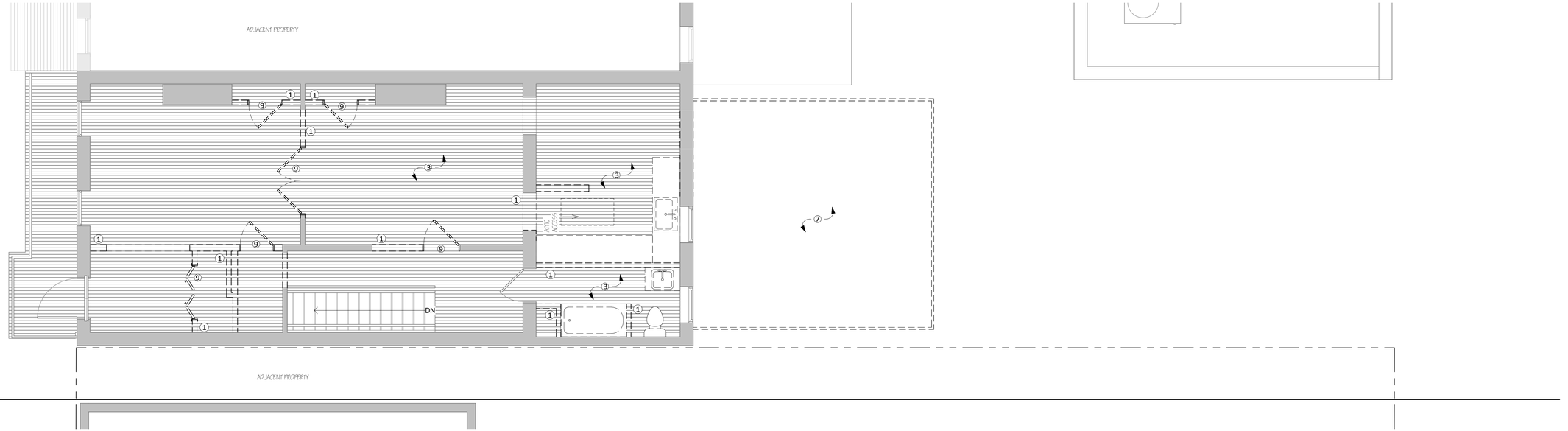
STATE OF GEORGIA
KEVIN F. ROSE
CERTIFICATE NO. 012435
REGISTERED ARCHITECT

PRIVATE RESIDENCE
118 W. HARRIS ST.
SAVANNAH, GA 31401

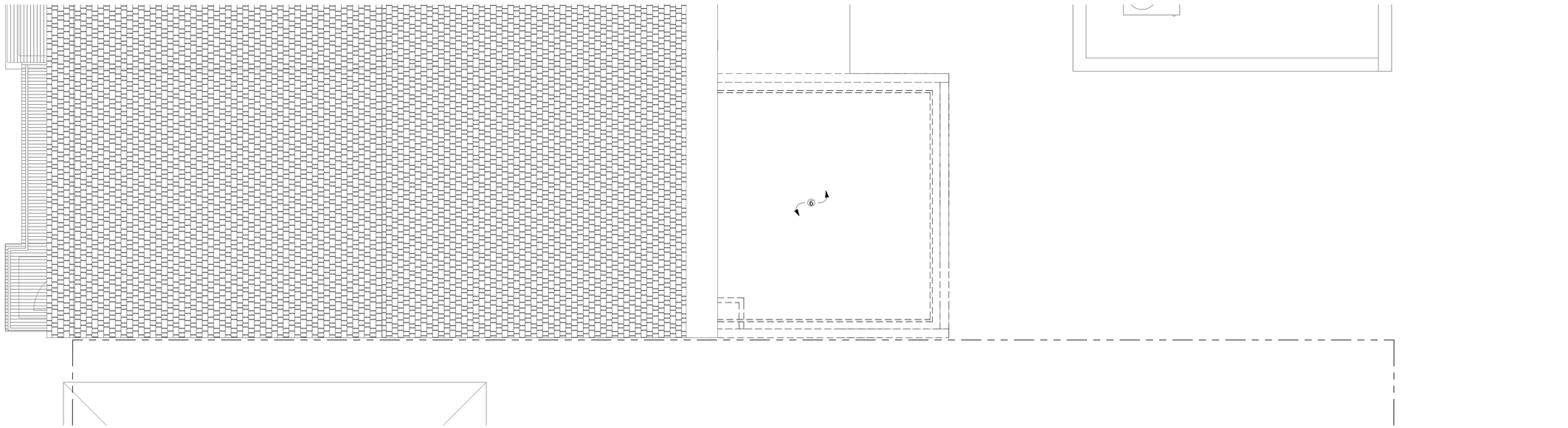
Revisions

FIRST AND SECOND DEMO PLAN
2502
Author Checker
8.20.25

D101



1 D102 3RD FLOOR DEMO
1/4" = 1'-0"



2 D102 ROOF DEMO
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DEMO LEGEND

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- PORTION OF WALL TO BE REMOVED
- PORTION OF FLOOR TO BE REMOVED
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PROJECT DEMO NOTES

ROSE ARCHITECTS

STATE OF GEORGIA
KEVIN F. ROSE
CERTIFICATE NO. 012426
REGISTERED ARCHITECT

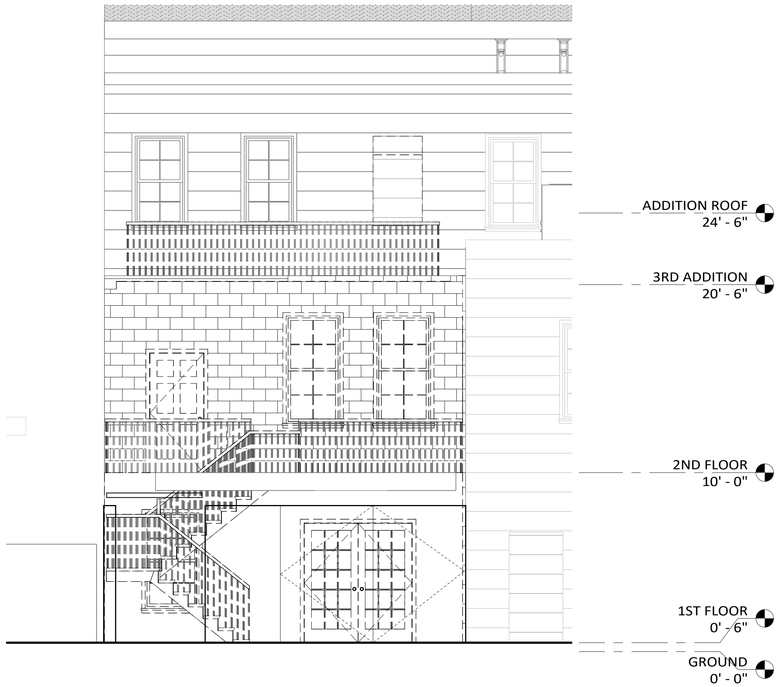
PRIVATE RESIDENCE

118 W. HARRIS ST.
SAVANNAH, GA 31401

Revisions

THIRD FLOOR & ROOF DEMO PLAN
2502
Author Checker
8.20.25

D102



1 D201 NORTH ELEVATION - DEMO
1/4" = 1'-0"

2 D201 SOUTH ELEVATION - DEMO (NO CHANGE)
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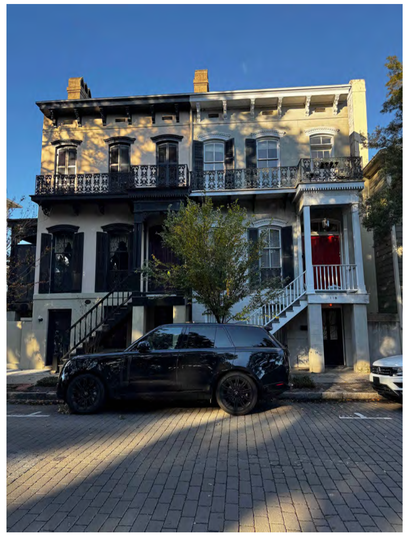
- PORTION OF WALL TO BE REMOVED
- PORTION OF FLOOR TO BE REMOVED
- PORTION OF CEILING TO BE REMOVED



ROSE ARCHITECTS

STATE OF GEORGIA
KEVIN F. ROSE
CERTIFICATE NO. 012435
REGISTERED ARCHITECT

PRIVATE RESIDENCE

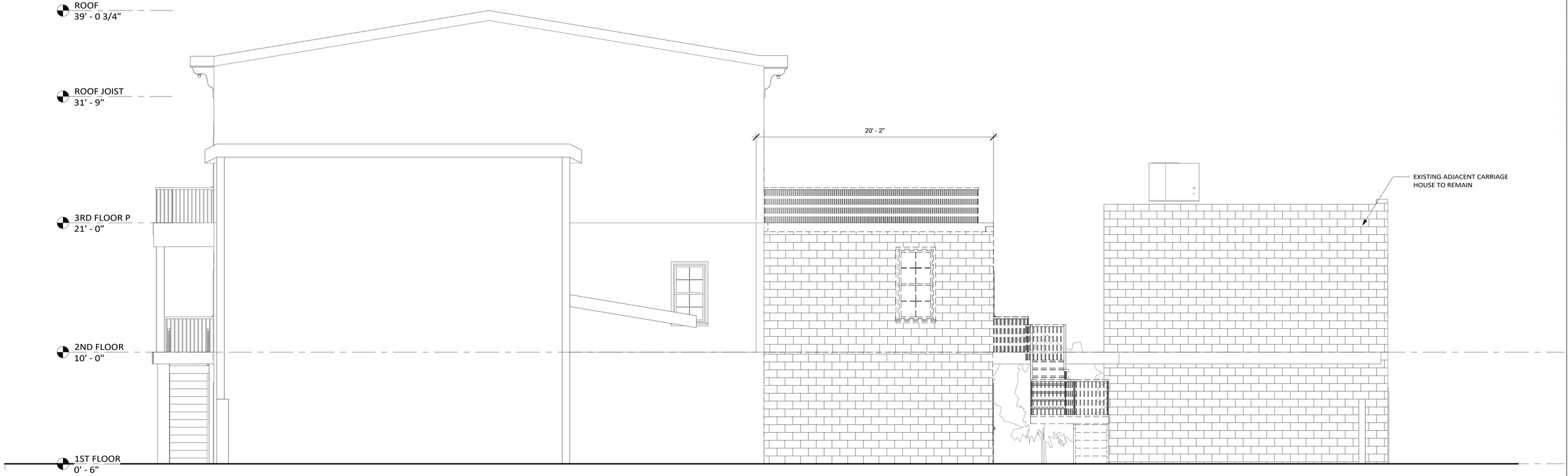
118 W. HARRIS ST.
SAVANNAH, GA 31401

Revisions

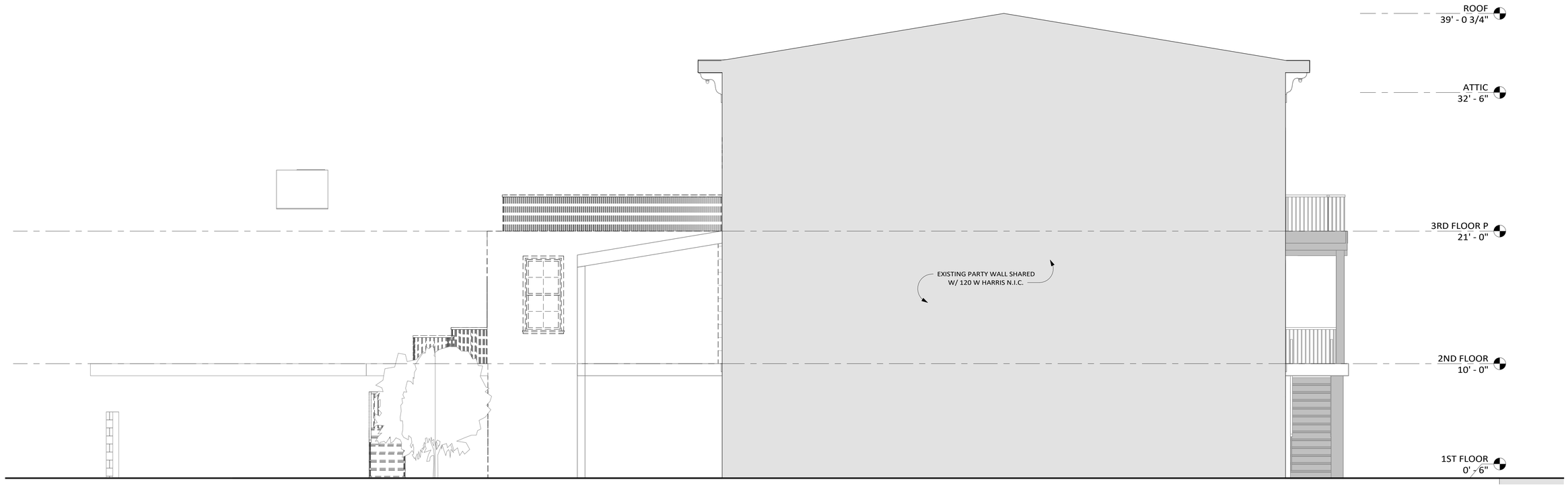
DEMO ELEVATIONS

2502
Author Checker
8.20.25

D201



1 D202 EAST ELEVATION - DEMO
1/4" = 1'-0"



2 D202 WEST ELEVATION - DEMO
1/4" = 1'-0"

ROSE ARCHITECTS

STATE OF GEORGIA
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CERTIFICATE NO. 012435
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Revisions

DEMO ELEVATIONS

2502
Author Checker
8.20.25

D202

LOT COVERAGE %

EXISTING BUILDING
NEW ADDITION

EXISTING BUILDING 938.37 SF
NEW ADDITION + 656.59 SF
1594.96 SF = 1595 SF

LOT PERCENTAGE
LOT GROSS (20'-0 * 100'-0=2000SF)
1595SF/2000SF *100 = **79.75%**

PIN # - 20015 36008

1 A100 SITE PLAN
3/32" = 1'-0"

18 WEST TAYLOR

20 WEST CHARLTON LN

20 WEST HARRIS LN

CONNECTOR VISIBILITY FROM LANE

EXAMPLES OF EXISTING CONNECTORS WITHIN IMMEDIATE AREA

END-OF-BLOCK CONDITION WHITAKER ST

1

END-OF-BLOCK CONDITION BARNARD ST

2

ROSE ARCHITECTS

STATE OF GEORGIA
KEVIN F. ROSE
CERTIFICATE NO. 012435
REGISTERED ARCHITECT

PRIVATE RESIDENCE

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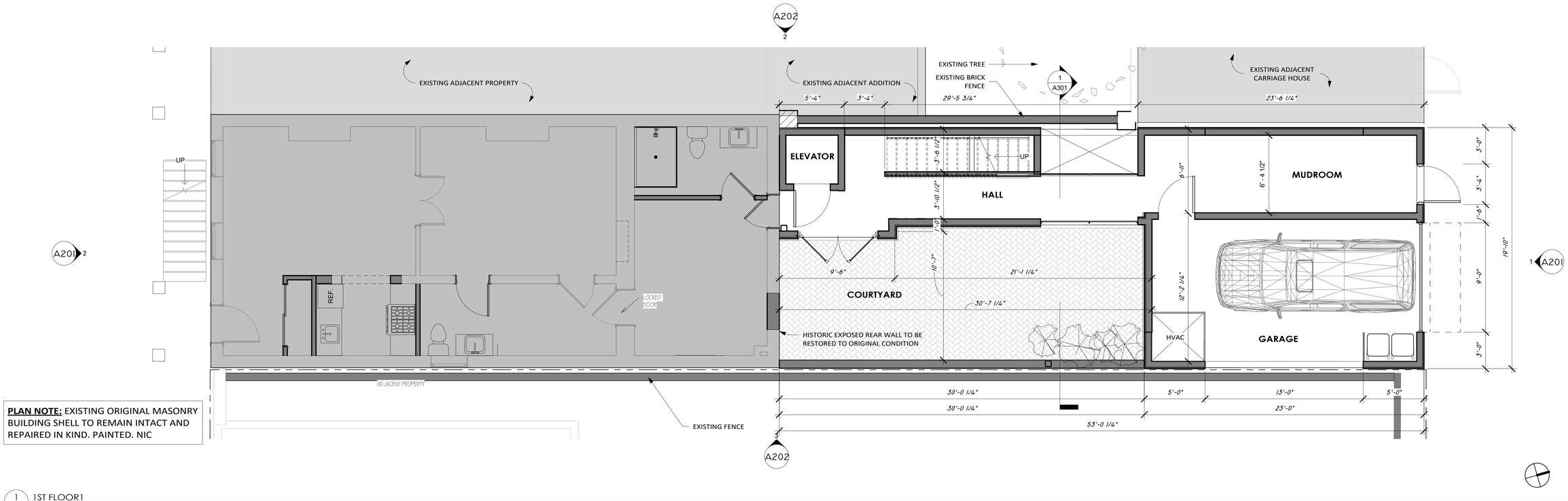
SAVANNAH, GA 31401

Revisions

SITE PLAN

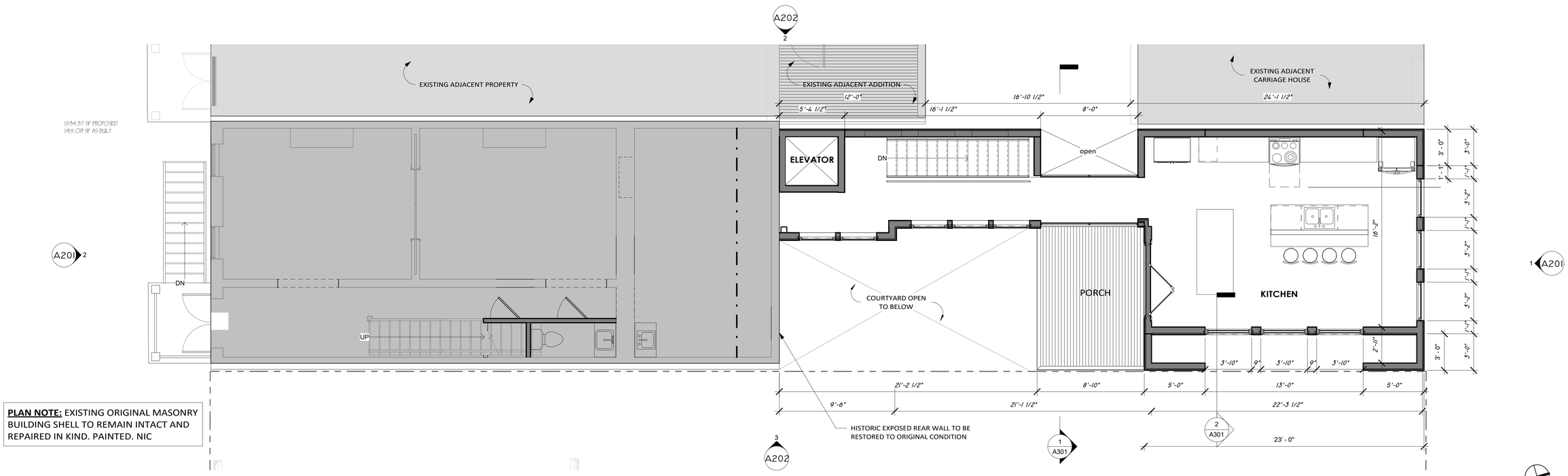
2502
Author Checker
8.20.25

A100



PLAN NOTE: EXISTING ORIGINAL MASONRY BUILDING SHELL TO REMAIN INTACT AND REPAIRED IN KIND. PAINTED. NIC

1 A101 1ST FLOOR1
1/4" = 1'-0"



PLAN NOTE: EXISTING ORIGINAL MASONRY BUILDING SHELL TO REMAIN INTACT AND REPAIRED IN KIND. PAINTED. NIC

2 A101 2ND FLOOR1
1/4" = 1'-0"

ROSE ARCHITECTS

STATE OF GEORGIA
KEVIN F. ROSE
CERTIFICATE NO. 012495
REGISTERED ARCHITECT

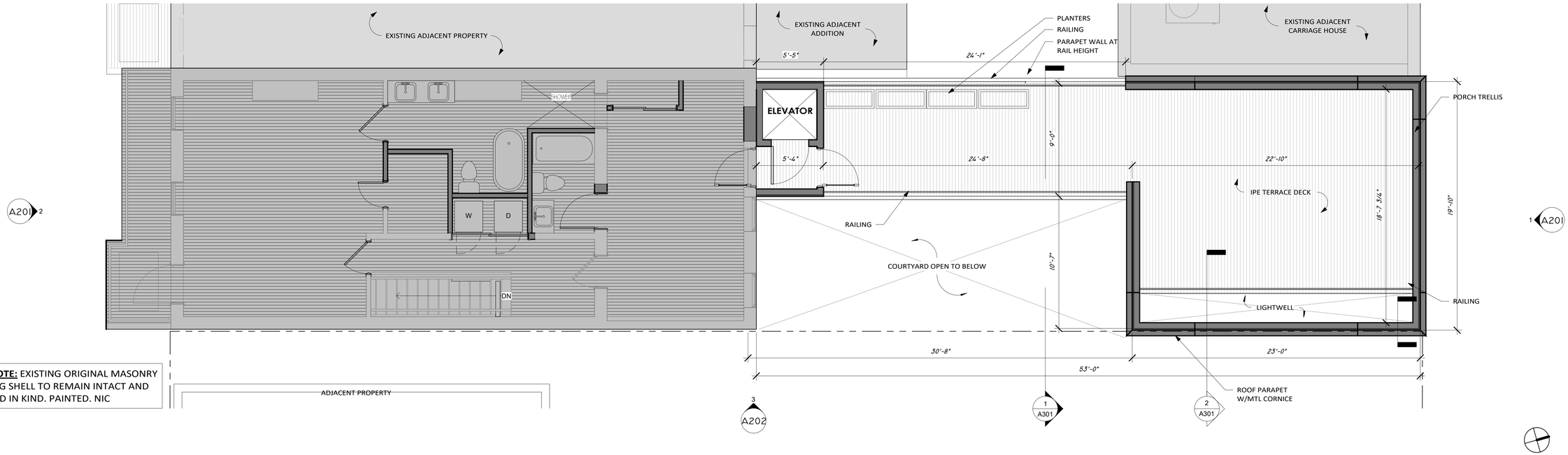
PRIVATE RESIDENCE

118 W. HARRIS ST.
SAVANNAH, GA 31401

Revisions

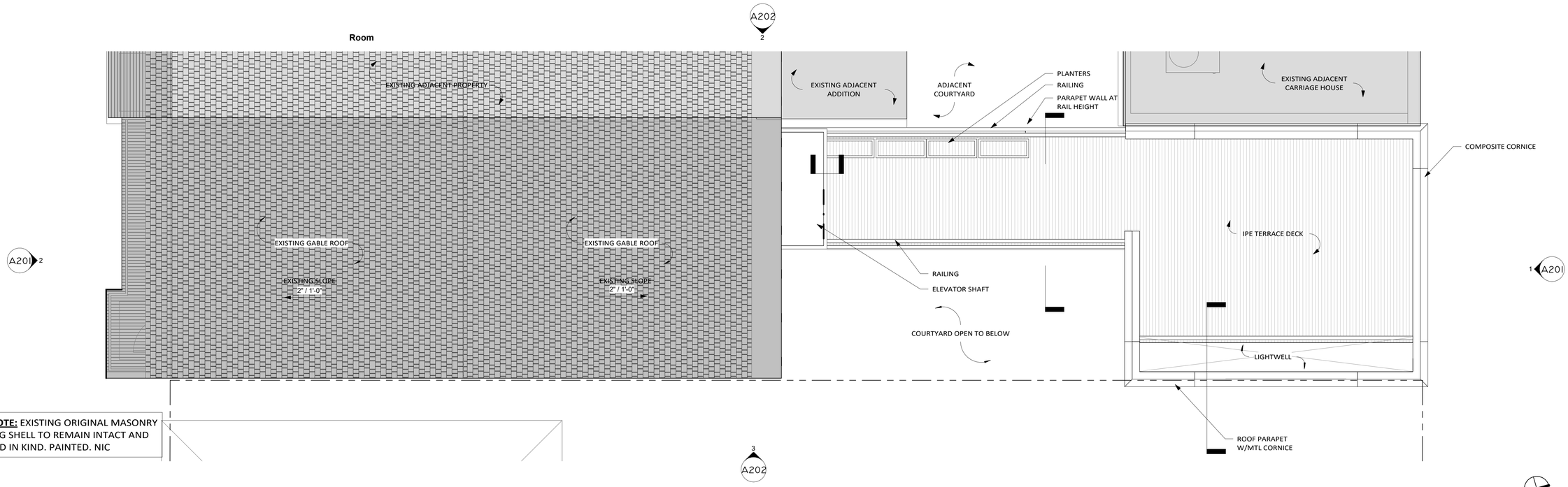
FIRST AND SECOND FLOOR PLAN
2502
Author Checker
8.20.25

A101



PLAN NOTE: EXISTING ORIGINAL MASONRY BUILDING SHELL TO REMAIN INTACT AND REPAIRED IN KIND. PAINTED. NIC

1 A102 3RD FLOOR
1/4" = 1'-0"



PLAN NOTE: EXISTING ORIGINAL MASONRY BUILDING SHELL TO REMAIN INTACT AND REPAIRED IN KIND. PAINTED. NIC

2 A102 ROOF
1/4" = 1'-0"

ROSE ARCHITECTS

STATE OF GEORGIA
KEVIN F. ROSE
CERTIFICATE NO. 012435
REGISTERED ARCHITECT

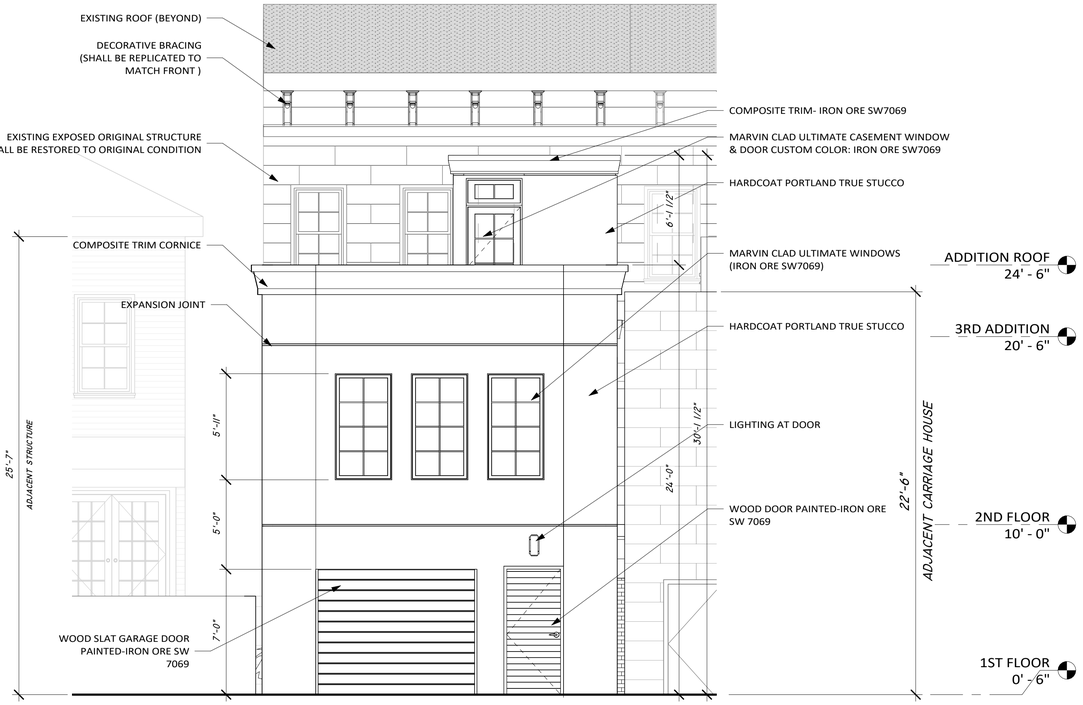
PRIVATE RESIDENCE

118 W. HARRIS ST.
SAVANNAH, GA 31401

Revisions

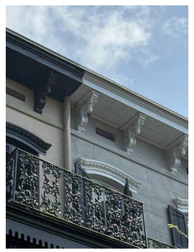
THIRD FLOOR & ROOF PLAN
2502
JK KR
8.20.25

A102



1 A201 NORTH ELEVATION - PROPOSED
1/4" = 1'-0"

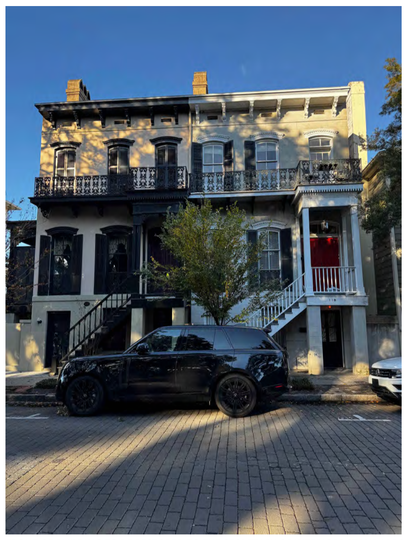
2 A201 SOUTH ELEVATION - EXISTING (NO CHANGE)
1/4" = 1'-0"


RESTORE ORIGINAL KNEE BRACE @ REAR


CONNECTED ROW HOUSE SLEEPING PORCH ON SIDE


CONNECTED ROWHOUSE ADDITION


EXISTING SPACE BETWEEN EXISTING ADDITION AND CONNECTED ROW HOUSE CARRIAGE HOUSE


FRONT OF BUILDING TO BE RESTORED TO THE SECRETARY OF INTERIORS STANDARDS

ROSE ARCHITECTS

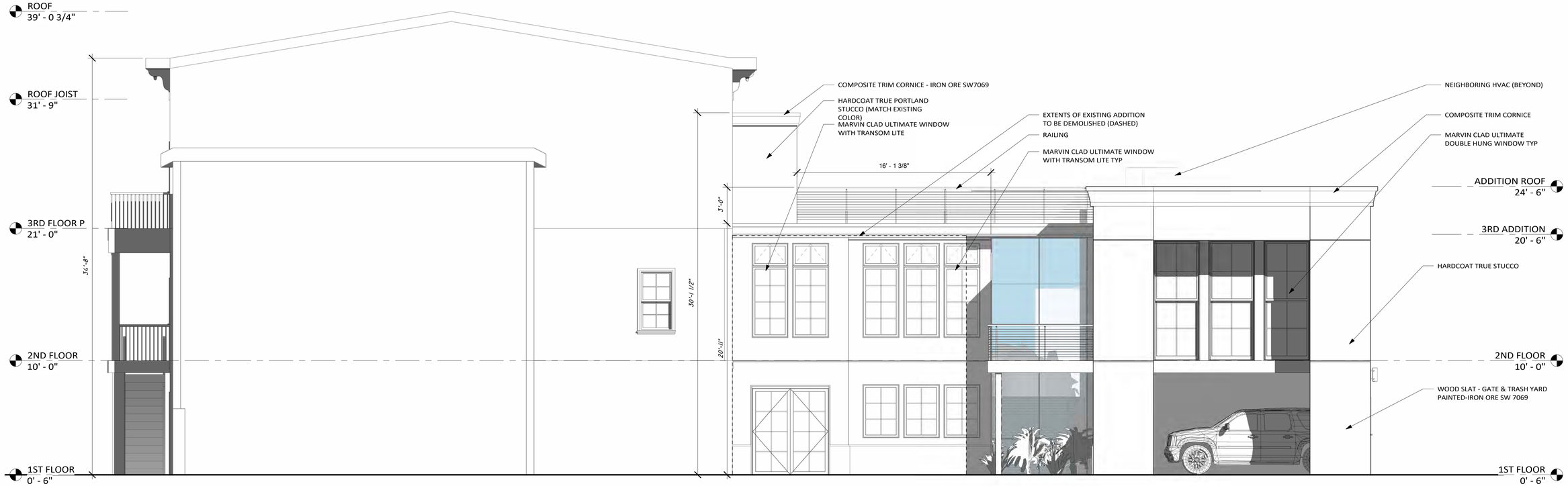
STATE OF GEORGIA
KEVIN F. ROSE
CERTIFICATE NO. 012439
REGISTERED ARCHITECT

PRIVATE RESIDENCE
118 W. HARRIS ST.
SAVANNAH, GA 31401

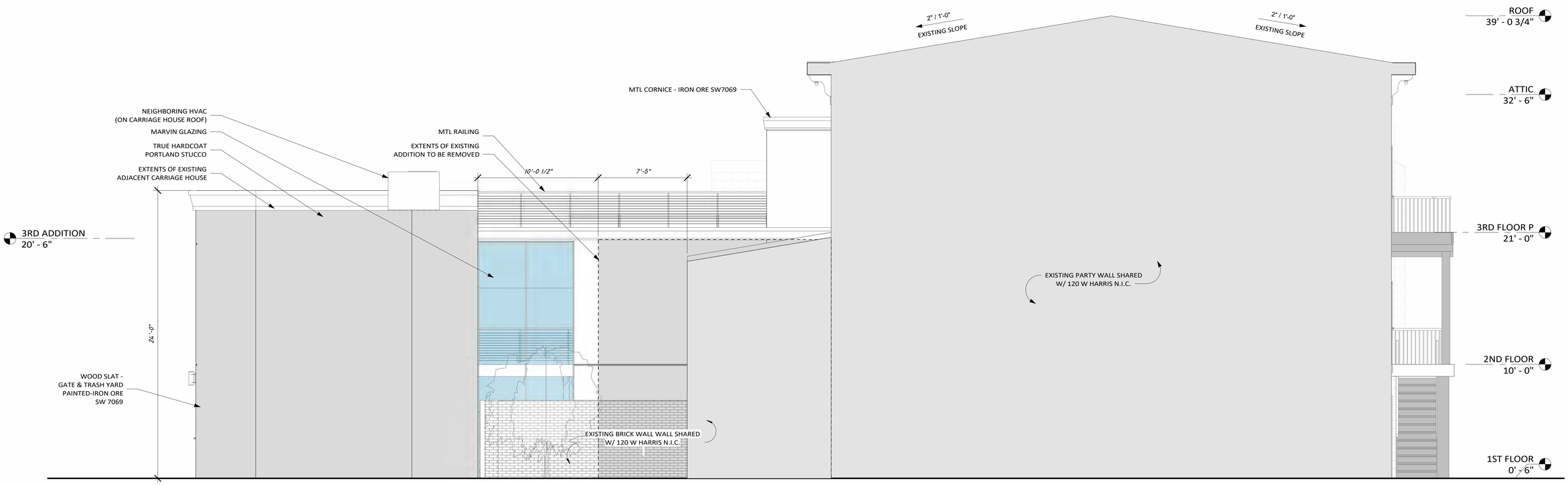
Revisions

PROPOSED EXTERIOR ELEV
2502
Author Checker
8.20.25

A201



3 A202 EAST ELEVATION
1/4" = 1'-0"



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STATE OF GEORGIA
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REGISTERED ARCHITECT

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2502
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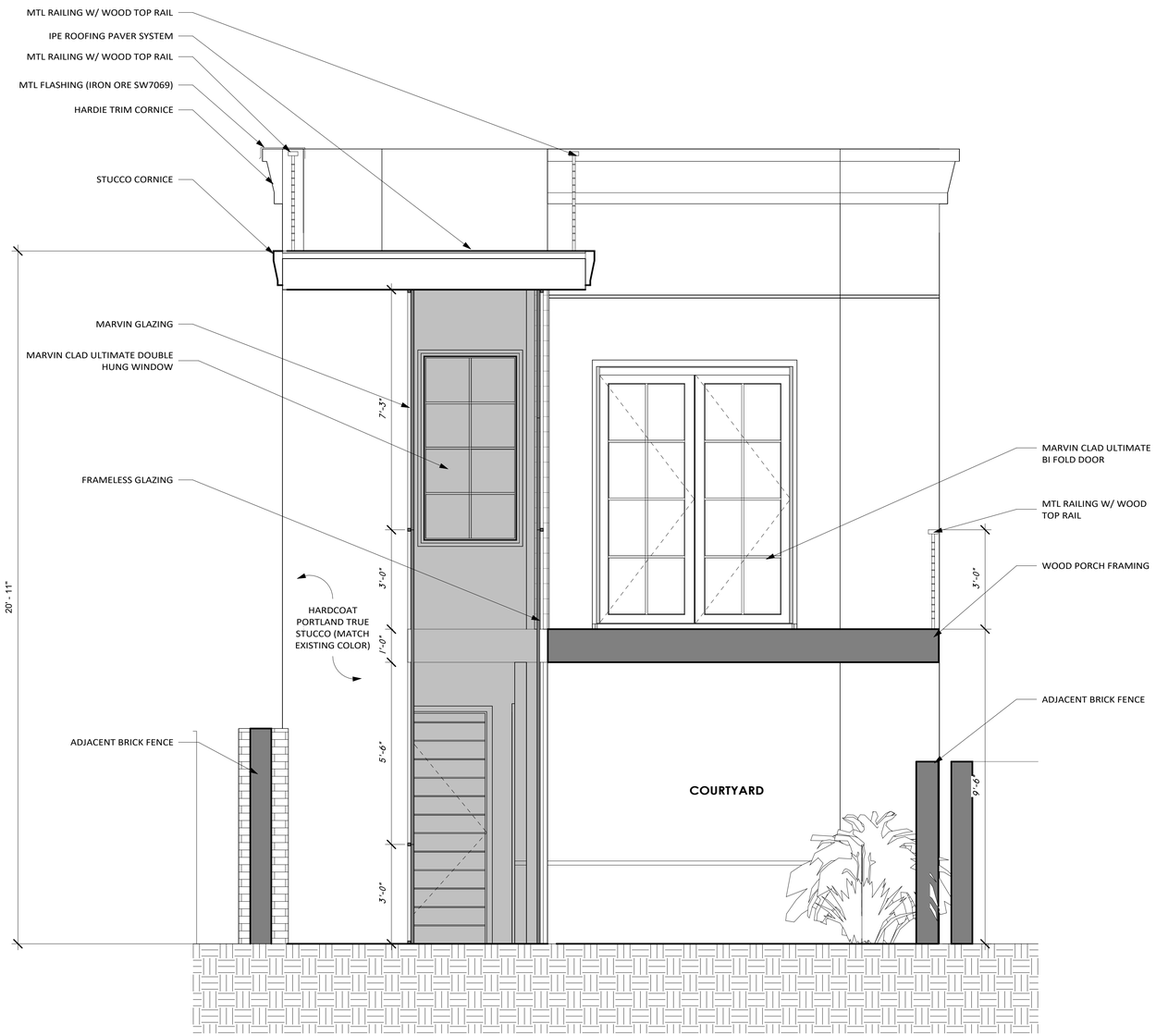
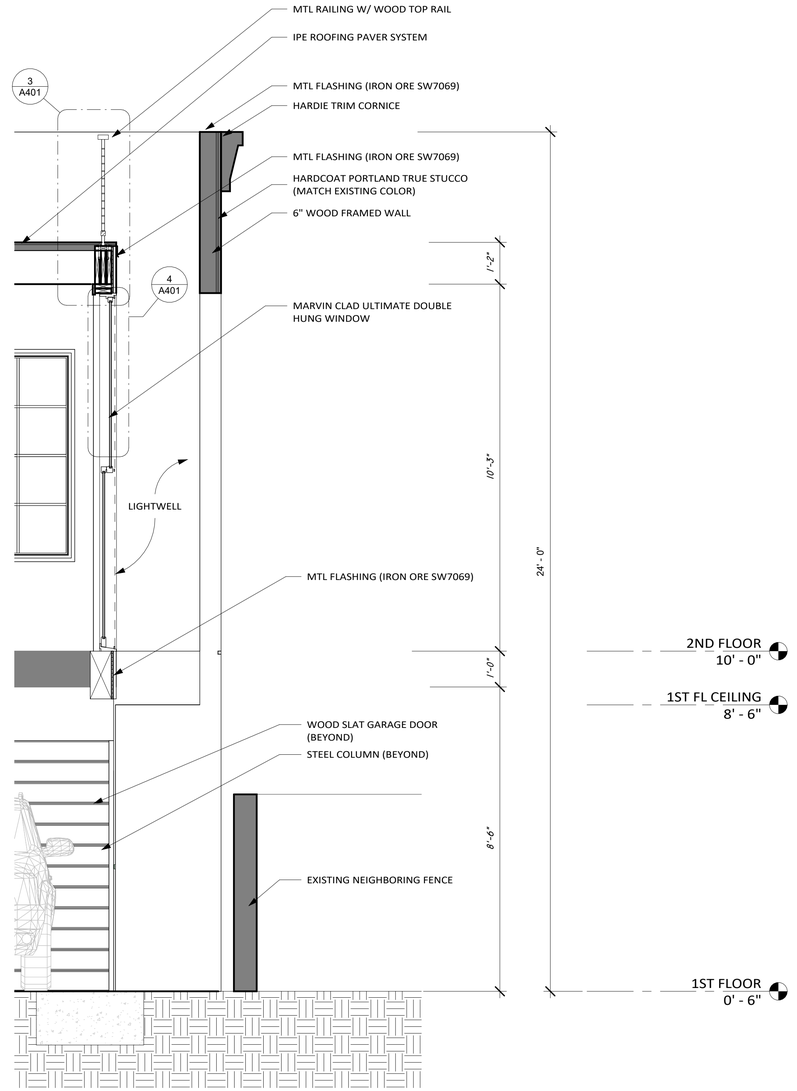


1 A301 SECTION - BRIDGE LIGHTWELL
1/2" = 1'-0"



2 A301 WALL SECTION - INTERIOR ATRIUM
1/2" = 1'-0"

ROSE ARCHITECTS

STATE OF GEORGIA
KEVIN F. ROSE
CERTIFICATE NO. 012435
REGISTERED ARCHITECT

PRIVATE RESIDENCE

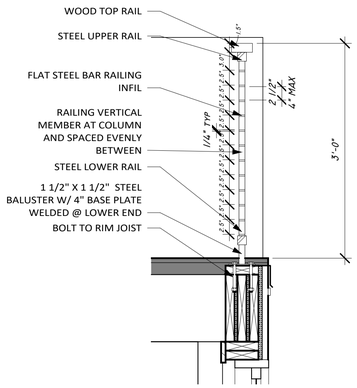
118 W. HARRIS ST.
SAVANNAH, GA 31401

Revisions

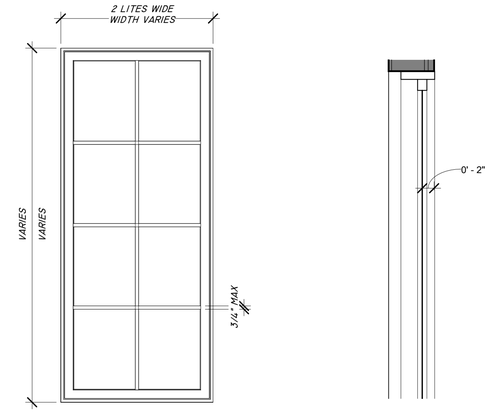
WALL SECTIONS

2502
Author Checker
8.20.25

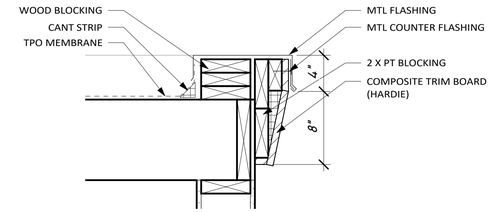
A301



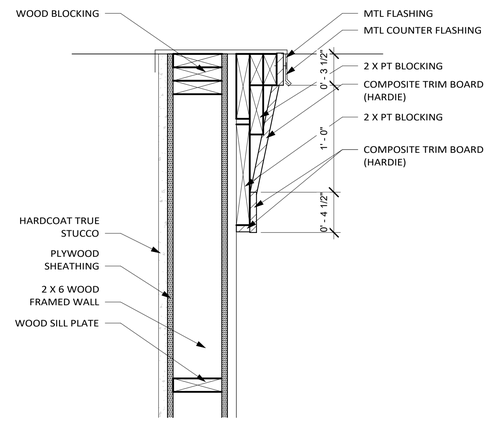
3 A401 DETAIL - HANDRAIL TYP
1" = 1'-0"



4 A401 DETAIL - TYPICAL GLAZING DEPTH AND MULLIONS
1" = 1'-0"



7 A401 DETAIL - ELEVATOR CORNICE
1 1/2" = 1'-0"



9 A401 DETAL - MAIN ADDITION CORNICE
1 1/2" = 1'-0"

ROSE ARCHITECTS

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SAVANNAH, GA 31401

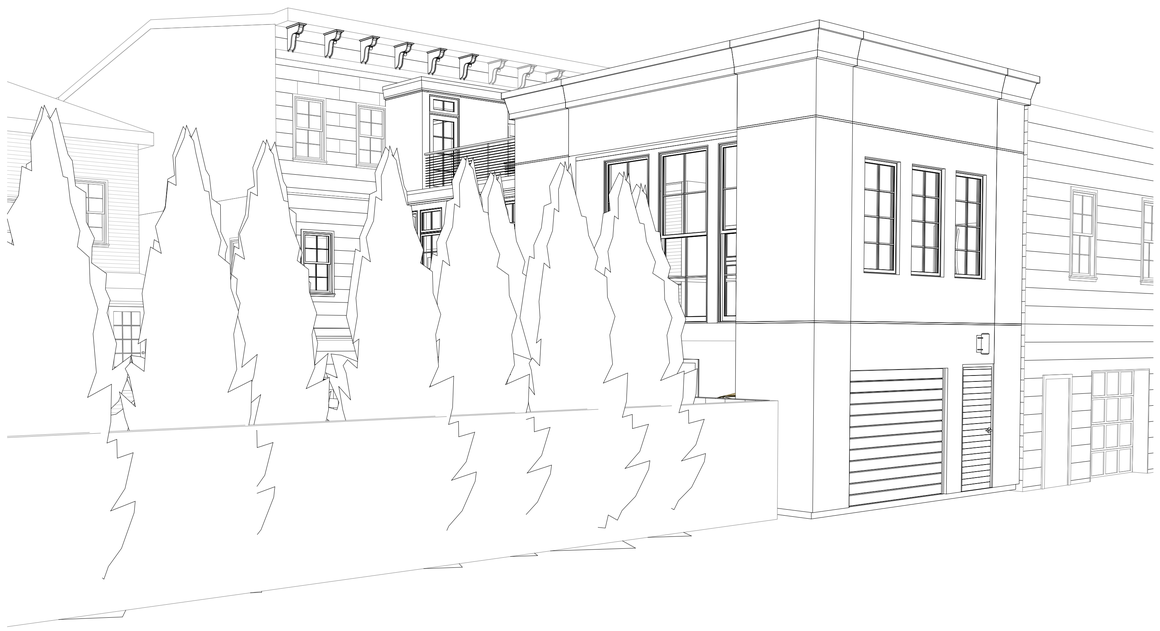
Revisions

DETAILS / WINDOWS

2502
JK
8.20.25

A401

2 A601 LANE FACING SOUTHWEST



3 A601 LANE FACING SOUTHEAST Copy 1 Copy 1

1 A601 LANE FACING SOUTHEAST

ROSE ARCHITECTS

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PRIVATE RESIDENCE

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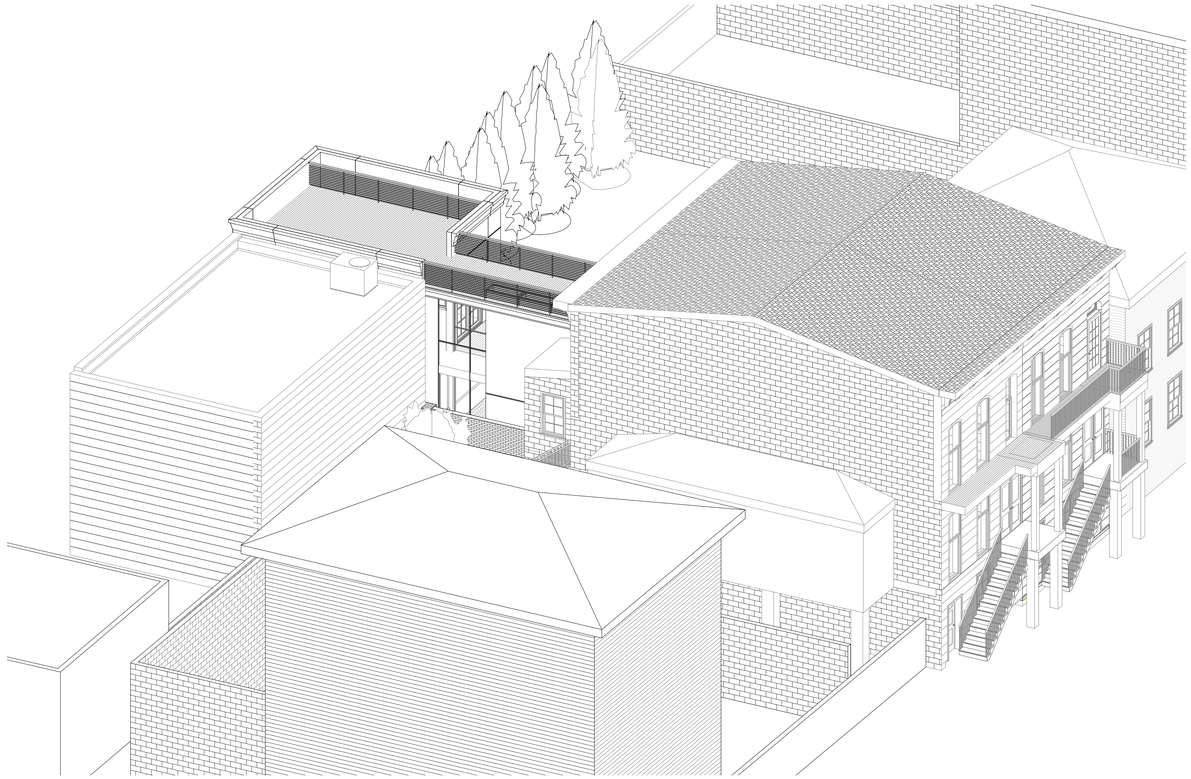
Revisions

LANE PERSPECTIVES

2502
Author Checker
8.20.25

A601



ROSE
ARCHITECTS

STATE OF GEORGIA
KEVIN F. ROSE
CERTIFICATE NO. 012435
REGISTERED ARCHITECT

PRIVATE RESIDENCE

118 W. HARRIS ST.
SAVANNAH, GA 31401

Revisions

BIRDSEYE PERSPECTIVES
2502
Author Checker
8.20.25

A602

ROSE
ARCHITECTS

STATE OF GEORGIA
KEVIN F. ROSE
CERTIFICATE NO. 012435
REGISTERED ARCHITECT

PRIVATE RESIDENCE

118 W. HARRIS ST.
SAVANNAH, GA 31401

Revisions

RENDERING

2502
Author Checker
8.20.25

A603


118
7851


WELCOME


SW 7069
Iron Ore
251-C7

Section 08 14 23
Ultimate Swinging Doors

Part 1 General

1.1 Section Includes

Ultimate Inswing/Outswing Door and frame complete with hardware, glazing, weather strip, insect screen, grilles-between-the glass, simulated divided lite, jamb extension, raised/flat panels, and standard or specified anchors, trim, attachments, and accessories

1.2 Construction Specification Institute (CSI) MasterFormat Numbers and Titles

A. Section 01 33 23 – Submittal Procedures: Shop Drawings, Product Data, and Samples

B. Section 01 62 00 – Product Options

C. Section 01 25 15 – Product Substitution Procedures

D. Section 01 65 00 – Product Delivery Requirements

E. Section 01 66 00 – Product Storage and Handling Requirements

F. Section 01 71 00 – Examination and Preparation

G. Section 01 73 00 - Execution

H. Section 01 74 00 – Cleaning and Waste Management

I. Section 01 75 00 – Starting and Adjusting

J. Section 01 76 00 – Protecting Installed Construction

K. Section 06 22 00 – Millwork: Wood trim other than furnished by door and frame manufacturer

L. Section 07 92 00 – Joint Sealants: Sill sealant and perimeter caulking

M. Section 08 71 00 – Door Hardware: Hardware other than furnished by door and frame manufacturer

N. Section 09 90 00 – Paints and Coatings: Paint and stain other than factory applied finish

1.3 References

A. ASTM, International:

1. E283: Standard Test Method for Determining Rate of Air Leakage through Exterior Windows, Skylights, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen

2. E330: Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights, and Curtain Walls, and Doors by Uniform Static Air Pressure Difference

3. E547: Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Cyclic Static Air Pressure Difference

4. E2190: Standard Specification for Insulating Glass Unit Performance and Evaluation

5. C1036: Standard Specification for Flat Glass

6. E 2112: Standard Practice for Installation of Exterior Windows, Doors, and Skylights

B. North American Fenestration Standards (NAFS) - American Architectural Manufacturer's Association/Window and Door Manufacturer's Association/Canadian Standards Association (AAMA/WDMA/CSA 101/I.S.2/A440):

1. AAMA/WDMA/CSA 101/I.S.2/A440-11: NAFS - North American Fenestration, Standard/Specification for windows, doors, and skylights

2. AAMA/WDMA/CSA 101/I.S.2/A440-17: NAFS – North American Fenestration Standard/Specification for windows, doors, and skylights

C. Window and Door Manufacturers Association (WDMA)

1. WDMA I.S.4: Industry Standard for Water Repellant Preservative Treatment for Millwork

2. WDMA I.S.2 Hallmark Certification Program

D. Insulating Glass Certification Council (IGCC) and Fenestration Glazing Industry Alliance (FGIA) Glass Products Council (GPC)

E. Fenestration Glazing Industry Alliance (FGIA) – note: AAMA combined with IGMA and formed FGIA as of 08/01/2019

1. AAMA 2605: Voluntary Specification for High Performance Organic Coatings on Architectural Extrusions and Panels

F. National Fenestration Rating Council (NFRC):

1. NFRC 101: Procedure for Determining Fenestration Product Thermal Properties

2. NFRC 200: Procedure for Determining Solar Heat Gain Coefficients at Normal Incidence

G. Window Covering

1. WCMA A100.0: Standard for safety of window covering products

1.4 System Description

A. Design and Performance Requirements:

Ultimate Inswing Door

Product	Air Tested to psf	Water Tested to psf	Structural Tested to psf	Certification Rating	Design Pressure (DP)	Overall Width		Overall Height		Applicable Configurations
						in	mm	in	mm	
Ultimate Inswing Door 2.25 12080 (OXXO)	1.57	6	60	LC-PG40	40	143	(3632)	98	(2489)	OXXO
Ultimate Inswing Door 2.25 14080 (OXXO)	1.57	4.5	45	LC-PG30	30	167	(4242)	98	(2489)	OXXO
Ultimate Inswing Door 2.25 36100 (O)	1.57	7.5	75	LC-PG50	50	43 7/16	(1103)	122	(3099)	O
Ultimate Inswing Door 2.25 36100 (X)	1.57	7.5	75	LC-PG50	50	43 7/16	(1103)	122	(3099)	X

Ultimate Outswing Door

Product	Air Tested to psf	Water Tested to psf	Structural Tested to psf	Certification Rating	Design Pressure (DP)	Overall Width		Overall Height		Applicable Configurations
						in	mm	in	mm	
Ultimate Outswing Door 2.25 12080 (OXXO)	1.57	6	60	LC-PG40	40	143	(98)	98	(2489)	OXXO
Ultimate Outswing Door 2.25 14080 (OXXO)	1.57	4.5	45	LC-PG30	30	167	(98)	98	(2489)	OXXO
Ultimate Outswing Door 2.25 36100 (O)	1.57	7.5	75	LC-PG50	50	43 7/16	(122)	122	(3099)	O
Ultimate Outswing Door 2.25 36100 (X)	1.57	7.5	75	LC-PG50	50	43 7/16	(122)	122	(3099)	X

1.5 Submittals

A. Shop Drawings: Submit shop drawings under provision of CSI MasterFormat Section 01 33 23

B. Product Data: Submit catalog data under provision of CSI MasterFormat Section 01 33 23

C. Samples:

1. Submit corner section under provision of CSI MasterFormat Section 01 33 23

2. Include glazing system, quality of construction and specified finish

D. Quality Control Submittals: Certificates: submit manufacturer's certification indicating compliance with specified performance and design requirement under provision of CSI MasterFormat Section 01 33 23

1.6 Quality Assurance

A. Requirements: consult local code for IBC [International Building Code] and IRC [International Residential Code] adoption year and pertinent revisions

1.7 Delivery

A. Comply with provisions of CSI MasterFormat Section 01 65 00

B. Deliver in original packaging and protect from weather

1.8 Storage and Handling

A. Prime and seal wood surfaces, including to be concealed by wall construction, if more than thirty (30) days will expire between delivery and installation. Seal unfinished top and bottom edges of door panels if panels are stored at the job site more than one (1) week.

B. Store door panels flat on a level surface in a clean and dry storage area above ground to protect from weather under provision of CSI MasterFormat Section 01660

C. Condition doors to local average humidity before hanging

1.9 Warranty

Complete and current warranty information is available at marvin.com/warranty. The following summary is subject to the terms, condition, limitations and exclusions set forth in the Marvin Windows and Door Limited Warranty and Products in Coastal Environments Limited Warranty Supplement:

A. Clear insulating glass with stainless steel spacers is warranted against seal failure caused by manufacturing defects and resulting in visible obstruction through the glass for twenty (20) years from the original date of purchase. Glass is warranted against stress cracks caused by manufacturing defects from ten (10) years from the original date of purchase.

B. Standard exterior aluminum cladding finish is warranted against manufacturing defects resulting in chalk, fade and loss of adhesion (peel) per the American Architectural Manufacturer's Association (AAMA) Specification 2605-11 Section 8.4 and 8.9 for twenty (20) years from the original date of purchase.

C. Factory-applied interior finish is warranted to be free from finish defects for a period of five (5) years from the original date of purchase.

D. Hardware and other non-glass components are warranted to be free from manufacturing defects for ten (10) years from the original date of purchase.

Part 2 Products

2.1 Manufactured Units

A. Description: Factory-assembled Ultimate Inswing / Outswing Door and/or related stationary units as manufactured by Marvin Windows and Doors, Ripley, Tennessee.

2.2 Frame Description

1. Interior: Non Finger-Jointed Pine or finger-jointed core with non finger-jointed Pine veneer; Kiln-dried to moisture content no greater than twelve (12) percent at time of fabrication

2. Water repellant, preservative treated in accordance with WDMA I.S.4

B. Frame exterior aluminum clad with 0.050” (1.3mm) thick extruded aluminum

C. Frame width: Outswing: 4 9/16” (116mm); Inswing: 6 9/16” (167mm)

D. Frame thickness: 1 1/16” (27mm)

E. Inswing French Door Sill: A single pultrusion of Fiber Reinforced Plastic (FRP), also known as Ultrex®, provides superior thermal performance

1. An integral weep system is part of a water management system that directs any incidental moisture to the exterior

2. Sill depth is 6 9/16” (167mm) jambs

3. Standard finish is bronze

4. Optional exterior sill cover in Mahogany and Oak for O, X, or XX operating configurations

F. Outswing Door Sill: A single pultrusion of Fiber Reinforced Plastic (FRP), also known as Ultrex™, provides superior thermal performance

1. Sill depth is 5 21/32” (144mm)

2. Standard finish is bronze

3. Optional interior sill cover in Mahogany and Oak for all operating configurations

2.3 Panel Description

A. Interior: Non Finger-Jointed Pine or finger-jointed core with non finger-jointed Pine veneer; with non finger-jointed Oak veneer; non finger-jointed Cherry or finger-jointed core with Cherry

veneer; non finger-jointed Mahogany or finger-jointed core with non finger-jointed Mahogany veneer.

1. Kiln-dried to moisture content no greater than twelve (12) percent at time of fabrication
2. Water repellant, preservative treated in accordance with WDMA I.S.4.

B. Panel exterior aluminum clad with 0.050” (1.3mm) thick extruded aluminum

C. Panel thickness: 2 1/4” (44mm)

D. Top and bottom rails and stile width: 3” (121mm)

E. Panel corners glued and fastened with 5/8” x 4” (16mm by 102mm) fluted hardwood dowels. No visible fasteners.

2.4 Glazing

A. Select quality complying with ASTM C 1036; Shall comply with 16 CFR 1201 Safety Standard for Architectural Glazing Materials

B. Glazing Method: Tempered Insulating Glass (altitude adjusted)

C. Interior and Exterior Glazing Profile: Square

D. Glass Type: Clear, Low E3/ERS Argon or air

E. Glazing Seal: Silicone bedding

2.5 Finish

A. Exterior: Aluminum Clad. Fluoropolymer modified acrylic topcoat over a primer. Meets AAMA 2605 requirements.

1. Aluminum clad color options: Stone WhiteInterior Finish Options:
1. Prime: Factory-applied water-borne acrylic primer. Meets WDMA-TM 11 requirements.
2. Painted Interior Finish. Available on Pine product only. WHITE

2.6 Hardware

A. Adjustable Hinges:

1. 4 ¼” x 3 ¾” with 3/8” radius corners. Adjustment is 3/16” for horizontal and vertical of panels in frame.
2. Rectangular doors have three adjustable hinges on 6-6, 6-8, 7-0 and 8-0 heights; optional four hinges on 7-0 and 8-0 heights
3. Finish: Optional powder coat finish: Dark Bronze

4. Optional PVD finishes: Satin Nickle PVD and Oil Rubbed Bronze PVD

B. Minimalist Handle Set: Active, Inactive

1. Painted finishes: Matte Black or Dark Bronze (aluminum substrate)

2. Nanotech finishes: Oil rubbed Bronze or Satin Nickel

C. Locking System:

1. Active and Inactive panel: Marvin exclusive concealed multi-point locking system. Stainless steel head and shoot bolts operated from lever set. One inch dead bolt.

2.7 Lock Status Sensor (Optional)

A. Lock Status Sensor

1. Unit is factory-prepared for an integrated lock status sensor system. Contact sensor mounted inside the boundaries of the operating panel. Refer to Lock Status Sensor Installation Instructions.

2. Lock Status Sensor wireless only.

a. Only wireless option available. Requires purchase of secondary transmitter for operation. Marvin will prep for this option.

3. For Swinging Doors, the sensor will always be integrated into the locking hardware system.

4. The actuator (keyed or thumb turn) is integrated into the locking hardware system.

2.8 Weather Strip

A. Inswing: Head jamb and side jambs to have 2 rows of bulb weather strip maintaining contact with door panels

1. Color: Black

B. Outswing: Head jamb and side jambs to have single bulb weather strip maintaining contact with door panels

1. Color: Black

C. Inswing and Outswing: Threshold to have bulb weather strip maintaining contact with bottom of panel

1. Color: Black

2.9 Jamb Extension

A. Factory-applied up to 3” (76mm) for other wall thickness indicated or required (shipped loose)

B. Finish: Matches interior frame finish

2.10 Insect Screen (Inswing Only)

1. NOT APPLICABLE

C. Ultimate Swinging Screen

1. Extruded aluminum swinging frame. Screen will match exterior aluminum clad color.
2. Screen mesh: Marvin BrightView™, Options: Charcoal Aluminum Wire, Black Aluminum Wire, Bright Aluminum Wire, Bright Bronze Wire
3. For standard swinging screen: black hinges: 2 for doors under 90” and 3 hinges for doors over 90”. Ultimate swinging screen has 4 hinges per panel and a factory installed Z-bar.
4. Handle includes latch with exterior handle and internal locking mechanism. Available in Bronze, Satin Nickel, Brass, or Satin Taupe.

2.11 Simulated Divided Lites (SDL)

2.12 NOT APPLICABLE

2.13 Grilles-Between-the–Glass (GBG)

1. NOT APPLICABLE

2.14 Accessories and Trim

A. Installation and Hardware Accessories:

1. Factory-installed vinyl nailing/drip cap
2. Installation brackets: 6 3/8” (162mm), 9 3/8” (238mm), 15 3/8” (390mm)
3. Masonry brackets: 6” (152mm), 10” (254mm)

B. Aluminum Extrusions:

1. Casing Profile: Flat Casing
2. Aluminum clad Extrusion: Frame Expander, Jamb Extender, Mullion Cover, Mullion Expander
3. Finish: Match exterior frame finish

Part 3 Execution

3.1 Examination

A. Verification of Condition: Before installation, verify openings are plumb, square and of proper dimensions as required in CSI MasterFormat Section 01 71 00. Report frame defects or unsuitable conditions to the General contractor before proceeding.

B. Acceptance of Condition: Beginning on installation confirms acceptance of existing conditions.

3.2 Installation

A. Comply with CSI MasterFormat Section 01 73 00.

B. Assemble and install window/door unit(s) according to manufacturer's instruction and reviewed shop drawing.

C. Install sealant and related backing materials at perimeter of unit or assembly in accordance with CSI MasterFormat Section 07 92 00 Joint Sealants. Do not use expansive foam sealant.

D. Install accessory items as required.

E. Use finish nails to apply wood trim and mouldings.

3.3 Field Quality Control

A. Remove visible labels and adhesive residue according to manufacturer's instruction.

B. Unless otherwise specified, air leakage resistance tests shall be conducted at a uniform static pressure of 75 Pa (~1.57 psf). The maximum allowable rate of air leakage shall not exceed 2.3 L/sm2 (~0.45 cfm/ft2).

C. Unless otherwise specified, water penetration resistance testing shall be conducted per AAMA 502 and ASTM E1105 at 2/3 of the fenestration products design pressure (DP) rating using "Procedure B" – cyclic static air pressure difference. Water penetration shall be defined in accordance with the test method(s) applied.

3.4 Cleaning

A. Remove visible labels and adhesive residue according to manufacturer's instruction.

B. Leave windows and glass in a clean condition. Final cleaning as required in CSI MasterFormat Section 01 74 00.

3.5 Protecting Installed Construction

A. Comply with CSI MasterFormat Section 07 76 00.

B. Protecting windows from damage by chemicals, solvents, paint or other construction operations that may cause damage.

End of Section

Section 08 52 13
Ultimate Double Hung G2

Part 1 General

1.1 Section Includes

A. Ultimate Double Hung G2, Transom, , glazing, weather strip, insect screen, grilles-between-the-glass, simulated divided lite, jamb extension, combination storm/screen, and standard or specified anchors, trim, attachments, factory-applied historic casing(s) and accessories

1.2 Related Sections

A. Section 01 33 23 – Submittal Procedures; Shop Drawings, Product Data and Samples

B. Section 01 62 00 – Product Options

C. Section 01 65 00 – Product Delivery

D. Section 01 66 00 – Storage and Handling Requirements

E. Section 01 71 00 – Examination and Preparation

F. Section 01 73 00 - Execution

G. Section 01 74 00 – Cleaning and Waste Management

H. Section 01 76 00 – Protecting Installed Construction

I. Section 06 22 00 – Millwork: Wood trim other than furnished by window manufacturer

J. Section 07 92 00 – Joint Sealant: Sill sealant and perimeter caulking

K. Section 09 90 00 – Painting and Coasting: Paint and stain other than factory-applied finish

1.3 References

A. American Society for Testing Materials (ASTM):

1. E283: Standard Test method for Rate of Air Leakage through Exterior Windows, Curtain Walls and Doors

2. E330: Standard Test Method for Structural Performance of Exterior Windows, Curtain Walls and Door by Uniform Static Air Pressure Difference

3. E547: Standard Test Method for Water Penetration of Exterior Windows, Curtain Walls and Doors by Cyclic Static Air Pressure Differential

4. E2190: Specification for Sealed Insulated Glass Units

5. C1036: Standard Specification for Flat Glass

6. E2068: Standard Test Method for Determination of Operating Force of Sliding Windows and Doors

7. E 1996: Standard Specification for Performance of Exterior Windows, Curtain Walls, Doors and Storm Shutters Impacted by Windborne Debris in Hurricanes

8. E 1886: Standard Test method for Performance of Exterior Windows, curtain Walls, and Storm Shutters Impacted by Missile(s) and Exposed to Cyclic Pressure Differentials

9. F 2090-17: Standard Specifications for Windows Fall Prevention Devices with Emergency Escape (egress) Release Mechanisms

B. American Architectural Manufacturer's Association/Window and Door Manufacturer's Association (AAMA/WDMA/CSA):

1. AAMA/WDMA/CSA 101/I.S.2/A440-08, Standard/Specification for windows, doors and skylights

2. AAMA/WDMA/CSA 101/I.S.2/A440-11, Standard/Specification for windows, doors and skylights

3. AAMA 450-10, Voluntary Performance Rating Method for Mulled Fenestration Assemblies

C. WDMA I.S.4: Industry Standard for Water Repellant Preservative Treatment for Millwork

D. Window and Door Manufacturer's Association (WDMA): 101/I.S.2 WDMA Hallmark Certification Program

E. Sealed Insulating Glass Manufacturer's Association/Insulating Glass Certification Council (SIGMA/IGCC)

F. American Architectural Manufacturer's Association (AAMA): 2605: Voluntary Specification for High Performance Organic Coatings on Architectural Extrusions and Panels

G. National Fenestration Rating Council (NFRC):

1. 101: Procedure for Determining Fenestration Product thermal Properties

2. 200: Procedure for Determining Solar Heat Gain Coefficients at Normal Incidence

H. Window Covering Manufacturer's Association

1. A100.1: American National Standard for Safety of Corded Window Coverings Products

1.4 System Description

A. Design and Performance Requirements:

Product	Air Test to PSF	Water Tested to psf	Structural Tested to psf	Certification Rating	Design Pressure	Overall Width		Overall Height	
						in	mm	in	mm
Ultimate Double Hung G2 (4040)	1.57	7.5	75	LC-PG50	DP50	45 1/4	(1149)	87 1/2	(2223)
Ultimate Double Hung G2 (4044)	1.57	7.5	75	LC-PG50	DP50	45 1/4	(1149)	95 1/2	(2426)
Ultimate Double Hung G2 (4450)	1.57	7.5	75	LC-PG50	DP50	49 1/4	(1251)	107 1/2	(2731)
Ultimate Double Hung G2 (5044) *	1.57	6	60	LC-PG35	DP35	55 1/4	(1403)	95 1/2	(2426)
Ultimate Double Hung G2 (5456)	1.57	6	60	LC-PG35	DP35	59 1/4	(1505)	119 1/2	(3035)
Ultimate Double Hung G2 (6060)	1.57	7.5	45	LC-PG30	DP30	65 1/4	(1657)	127 1/2	(3239)
Ultimate Double Hung G2 Picture (6668)	1.57	7.5	75	CW-PG50	DP50	67 1/4	(1708)	69 1/2	(1765)
Ultimate Double Hung G2 Picture (60102)	1.57	7.5	75	CW-PG50	DP50	61 1/4	(1556)	103 1/2	(2629)
Ultimate Double Hung G2 Transom (4020)	1.57	7.5	75	LC-PG50	DP50	45 1/4	(1149)	27 11/16	(703)
Ultimate Double Hung G2 Transom (6820)	1.57	7.5	75	LC-PG50	DP50	73 1/4	(1861)	27 11/16	(703)
Ultimate Double Hung G2 Transom (6820)	1.57	7.5	75	LC-PG50	DP50	73 1/4	(1861)	27 11/16	(703)
Ultimate Double Hung G2 (5044) *	1.57	6	60	LC-PG35	DP35	55 1/4	(1403)	95 1/2	(2426)
Ultimate Double Hung G2 (4826) CW Performance	1.57	7.5	75	CW-PG50	DP50	53 1/4	(1353)	59 1/2	(1511)
Ultimate Double Hung G2 (4848) CW Performance	1.57	7.5	75	CW-PG50	DP50	53 1/4	(1353)	103 1/2	(2629)
Ultimate Double Hung G2 (5056) CW Performance	1.57	7.5	60	CW-PG40	DP40	55 1/4	(1403)	119 1/2	(3035)

Ultimate Double Hung G2 (5456) CW Performance	1.57	7.5	45	CW-PG30	DP30	59 1/4	(1505)	119 1/2	(3035)

*Tested with the Performance Bracket Removed

1.5 Submittals

A. Shop Drawings: Submit shop drawings under provision of Section 01 33 23

B. Product Data: Submit catalog data under provision of Section 01 33 23

C. Samples:

1. Submit corner section under provision of section 01 33 23

2. Include glazing system, quality of construction and specified finish

D. Quality Control Submittals: Certificates: submit manufacturer's certification indicating compliance with specified performance and design requirement under provision of section 01 33 23

1.6 Quality Assurance

A. Requirements: consult local code for IBC [International Building Code] and IRC [International Residential Code] adoption year and pertinent revisions for information on:

1. Egress, emergency escape and rescue requirements

2. Windows fall prevention and/or window opening control device requirements

1.7 Delivery

A. Comply with provisions of Section 01 65 00

B. Deliver in original packaging and protect from weather

1.8 Storage and Handling

A. Prime and seal wood surfaces, including to be concealed by wall construction, if more than thirty (30) days will expire between delivery and installation

B. Store window units in an upright position in a clean and dry storage area above ground to protect from weather under provision of Section 01 66 00

1.9 Warranty

Complete and current warranty information is available at marvin.com/warranty. The following summary is subject to the terms, condition, limitations and exclusions set forth in the Marvin Windows and Door Limited Warranty and Products in Coastal Environments Limited Warranty Supplement:

A. Clear insulating glass with stainless steel spacers is warranted against seal failure caused by manufacturing defects and resulting in visible obstruction through the glass for twenty (20) years from the original date of purchase. Glass is warranted against stress cracks caused by manufacturing defects from ten (10) years from the original date of purchase.

B. Standard exterior aluminum cladding finish is warranted against manufacturing defects resulting in chalk, fade and loss of adhesion (peel) per the American Architectural Manufacturer's Association (AAMA) Specification 2605-11 Section 8.4 and 8.9 for twenty (20) years from the original date of purchase.

C. Factory-applied interior finish is warranted to be free from finish defects for a period of five (5) years from the original date of purchase.

D. Hardware and other non-glass components are warranted to be free from manufacturing defects for ten (10) years from the original date of purchase.

Part 2 Products

2.1 Manufactured Units

A. Description: Ultimate Double Hung G2 (and related stationary units) as manufactured by Marvin, Warroad, Minnesota.

2.2 Frame Description

1. Interior: Non Finger-Jointed Pine or finger-jointed core with non finger-jointed Pine veneer; optional non finger-jointed Douglas Fir or finger-jointed core with non finger-jointed Douglas Fir veneer; Kiln-dried to moisture content no greater than 12 percent at the time of fabrication

2. Water repellant, preservative treated in accordance with ANSI/WDMA I.S.4.

A. Frame exterior aluminum clad with 0.050" (1.3mm) thick extruded aluminum

B. Frame thickness: 11/16" (17mm) head and jambs

C. Frame depth: Frame depth had an overall 5 21/32" jamb (144mm). 4 9/16" (116mm) jamb depth from the nailing fin plane to the interior face of the frame for new construction.

D. Sill assembly including the sill liner: 2 7/32" (56mm)

E. Factory-applied historic profile extrusion

2.3 Sash Description

1. Interior: Non Finger-Jointed Pine or finger-jointed core with non finger-jointed Pine veneer; optional non finger-jointed Douglas Fir or finger-jointed core with non finger-jointed Douglas Fir veneer; Kiln-dried to moisture content no greater than 12 percent at the time of fabrication

2. Water repellant preservative treated with accordance with WDMA I.S.4.

F. Sash exterior aluminum clad with 0.050” (1.3mm) thick extruded aluminum

A. Sash thickness: 1 3/4” (44mm). Corner slot and tenoned.

B. Operable sash tilt to interior for cleaning or removal

C. Sash Options:

    a. Standard: Equal Sash

D. Exterior Cope Profile: Putty

E. Interior Sash Sticking

1. Standard: Ogee

2.4 Glazing

A. Select quality complying with ASTM C1036. Insulating glass SIGMA/IGCC certified to performance level CBA when tested in accordance with ASTM E2190.

B. Glazing method: Insulating glass

C. Glazing seal: Silicone bedding on interior and exterior

D. Glass Type:, Low E2 with or without Argon,

Finish

A. Exterior: Aluminum clad. Fluoropolymer modified acrylic topcoat over a primer. Meets AAMA 2605 requirements.

1. Aluminum clad color options: Stone White, Custom colors: Contact your Marvin representative

B. Interior Finish options:

2. Painted Interior Finish. Factory-applied water-borne acrylic enamel. Available on Pine product only. White Meets WDMA TM-14 requirements.

2.5 Hardware

A. Locking system that provides locking, unlocking, balancing, and tilting of the sash members

B. Lock Actuator Assembly

1. Material

    a. Zinc die-cast

    b. Available finishes: Satin Nickel

2. Design Feature and Components

    a. To unlock unit, turn the handle 135°

    b. Lock automatically locks when both sash are closed.

    c. To tilt the bottom sash for wash mode, the bottom sash must be unlocked and raised a few inches; push the button on top of the lock handle and rotate the handle 180°

    d. To tilt the top sash for wash mode, the bottom sash must be tilted and/or removed from the frame; lower the top sash to a good working height, retract the tilt latches on the top rail and tilt sash inward out of the frame

    e. Custodial hardware colors: Satin Taupe, White, Bronze, Matte Black

C. Bottom Rail Lock Actuator Assembly - Lift Lock (Optional for Single Hung)

1. Material

    a. Zinc die-cast
    b. Available finishes: Satin Nickel

2. Design Feature and Components

    a. Does not contain Check Rail Lock Actuator Assembly or Strike Assembly

    b. Available in Traditional and Contemporary designs

    c. To unlock unit, lift the lock

    d. Lock automatically locks when bottom sash is closed.

    e. To tilt the bottom sash for wash mode, raise the bottom sash and manually retract the latches.

    f. Custodial hardware colors (available with traditional design): Satin Taupe, White, Bronze, Matte Black

D. Latches

1. Bottom sash latch

    a. Material

        i. Bolt: Glass-filled nylon

        ii. Latch housing: Acetal

        iii. Sash latch reinforcement: Stainless steel

2. Top sash tilt latch

    a. Material

        i. Bolt: Glass-filled nylon

        ii. Latch housing: Glass-filled nylon

3. Latches accommodate travel of sash in frame, and tilting into wash-mode

4. Color: Beige White

E. Strike Assembly

1. Material

    f. Zinc die-cast strike plate and injection-molded Acetal housing and button

    g. Available finishes: Satin Nickel

2. Strike assembly accommodates locking/unlocking

F. Balance System (balance system determined by sash weight)

1. Block & tackle balances

2. Hybrid spiral balances

G. Factory-applied Window Opening Control Device (WOCD) is a sash limiter that prevents the window opening more than 4” vertically. It meets ASTM F2090-17 specifications for window fall prevention standards. The system consists of two single action devices that allows for egress (when applied to an egress size window) by bypassing the 4” stop feature.

1. Material

a. WOCD device: zinc die-cast

b. WOCD strike plate: nylon

2. 2 WOCD’s applied to each double and single hung window and will be recessed into the stiles of the top sash

3. Default color matches lock handle

4. Strike plate mounted to the bottom sash check rail

5. Strike plate color to match weather strip

H. Sash Limiter

1. Bottom Sash Limiter (Acetal)

a. Available on all operator configurations, and StormPlus IZ3

b. Selectable bottom sash locations, 4", 6" or 8" Net Clear Opening (NCO)

c. Non-tilt hardware is default, and a sash removal tool is required in order to by-pass the Sash limiter for sash removal (tilt wash mode)

d. Standard application is factory applied. Available for field retrofit applications.

e. Color: Will align with the Exterior Weather Strip Package selection

2. Top Sash Limiter (Extruded PVC)

a. Available on all operator configurations, with the exception Single Hung configurations. This includes StormPlus IZ3

b. Standard application is factory applied. Available for field applications

c. Color: Will align with the Interior Weather Strip Package selection

2.6 Weather Strip

A. Operating units:

1. Jambs: Foam-filled bulb
2. Header: Continuous dual leaf
3. Bottom rail and check rail: Hollow bulb

B. Stationary units:

1. Jambs: Foam for picture units; foam-filled bulb for transom unit
2. Header and bottom rail: Hollow bulb

2.7 Jamb Extension

A. Jamb extensions are available for various wall thickness factory-applied up to a 14” (356mm) wide

B. Finish: Match interior frame finish

2.8 Head/Seat Board (For use with Bow and Bay units)

A. Factory-installed (head board) (seat board) for wall thickness indicated or required

B. Finish: Match interior finish

2.9 Insect Screen

A. Factory-installed full or half screen. Half screen covers sash opening.

1. Screen Mesh: Marvin Bright View™

B. Screen Frame

1. Window frame height less than or equal to 54 ½” Aluminum Screen Frame. Option: Extruded Aluminum Screen Frame.
2. Window frame height greater than 54 ½” Extruded Screen Frame. Option: None.

C. Aluminum frame finish:

1. Color: Matches exterior aluminum clad color

2.10 Combination Storm Sash and Screen

A. Frame: Exterior extruded aluminum 0.050” (1.3mm) thick

B. Finish: Fluoropolymer modified acrylic topcoat applied over Fluoropolymer primer. Meets AAMA 2605 requirements

1. Finish: Stone White, Bahama Brown, Bronze, Evergreen, Pebble Gray

C. Hardware: Spring loaded locking pins to hold movable storm panel in position. Heavy metal clips to lock upper and lower storm panels together

D. Weather strip: Dual durometer weather strip on center cross rail seals against operating panel in closed position

E. Storm panel: Select quality glass in aluminum frame

1. Frame finish: Standard color: Stone White, Bahama Brown, Bronze, Evergreen, Pebble Gray

F. Insect screen panel:

1. Extruded aluminum surround

2. Screen mesh: Standard is Marvin Bright View™. Optional Charcoal Aluminum Wire, Black Aluminum Wire, Bright Bronze Aluminum Wire, Bright Aluminum Wire

3. Aluminum frame finish: Bronze, White (GBG)

A. 23/32” (18mm) contoured aluminum bar

1. Exterior Colors: Exterior matches exterior aluminum clad colors. The exterior GBG color is designed to best match the Marvin aluminum clad color when used with Low E glass. The use of different types of glazing may alter the exterior GBG color appearance

2. Interior Colors: White is the default color. Optional colors: Bronze, Pebble Gray, Sierra, White

B. Optional flat aluminum spacer bar. Contact your Marvin representative.

C. Pattern: Rectangular, Cottage, Custom lite layout

2.11 Accessories and Trim

A. Installation Accessories:

1. Factory-installed vinyl nailing/drip cap

2. Installation brackets: 6 3/8” (162mm), 9 3/8” (283mm), 15 3/8” (390mm)

3. Masonry brackets: 6” (152mm), 10” (254mm)

B. Aluminum Extrusions:

1. Casing Profile: Brick Mould Casing (BMC), Flat Casing, Columbus Casing, Grayson Casing, Ridgeland Casing, Stratton Casing, Thorton Casing, Potter Casing

2. Aluminum clad Extrusion: Frame Expander, Jamb Extender, Mullion Cover, Mullion Expander, Subsill, Subsill End Cap and Lineal Cap

3. Finish: Fluoropolymer modified acrylic topcoat applied over primer. Meets AAMA 2605 requirements

4. Available in all exterior aluminum clad colors

C. Historic casing, factory-applied profiles: Ridgeland, Flat, BMC, Custom
    a. Subsills factory-applied

D. Exterior Sash Lugs – Standard Option

1. Standard Profile: Ogee

2. Available on Top Sash

3. Color: Available in all exterior clad color options

    a. Color shall be the same as top sash clad color

4. Standard application is factory applied. Available for field applications

2.12 Lock Status Sensor (Optional)

A. Lock Status Sensor

1. Unit is factory-prepared for an integrated lock status sensor system. Sensor and Magnet mounted inside the boundaries of the overall frame size. Refer to **Lock Status Sensor Installation Instructions**.
2. Lock Status Sensor may be wired or wireless.
    a. For wired option, check with local codes on potential contractor requirements for low voltage networking connections.
    b. Wireless option available. Requires purchase of secondary transmitter for operation. Marvin will prep for this option.

3. For CUDH-NG 2.0 products, the sensor will always be located on the right-hand side of the check rail (from the exterior) for the bottom sash. For the top sash, the sensor will be located in the header parting stop of the frame on the right side (from the exterior).
4. Actuator (magnet) for the sensor will be located on the stile for the top sash. For the bottom sash, it will be integrated into the locking hardware on the same side as the sensor.

B. Lock Status Sensor Option Includes:

1. Sensor - Reed

2. Actuator – Neodymium Magnet

3. Actuator Cover (Casement and Double Only)
    a. Colors: Black: Bare, stain and designer black; White: PIF-White and Prime

Part 3 Execution

3.1 Examination

A. Verification of Condition: Before installation, verify openings are plumb, square and of proper dimensions as required in Section 01 71 00. Report frame defects or unsuitable conditions to the General contractor before proceeding.

B. Acceptance of Condition: Beginning on installation confirms acceptance of existing conditions.

3.2 Installation

A. Comply with Section 01 73 00.

B. Assemble and install window/door unit(s) according to manufacturer's instruction and reviewed shop drawing.

C. Install sealant and related backing materials at perimeter of unit or assembly in accordance with Section 07 92 00 Joint Sealants.

D. Install accessory items as required.

E. Use finish nails to apply wood trim and mouldings.

3.3 Field Quality Control

A. Remove visible labels and adhesive residue according to manufacturer's instruction.

B. Unless otherwise specified, air leakage resistance tests shall be conducted at a uniform static pressure of 75 Pa (~1.57 psf). The maximum allowable rate of air leakage shall not exceed 2.3 L/sm^2 (~0.45 cfm/ft^2).

C. Unless otherwise specified, water penetration resistance testing shall be conducted per AAMA 502 and ASTM E1105 at 2/3 of the fenestration products design pressure (DP) rating using "Procedure B" – cyclic static air pressure difference. Water penetration shall be defined in accordance with the test method(s) applied.

3.4 Cleaning

A. Remove visible labels and adhesive residue according to manufacturer’s instruction.

B. Leave windows and glass in a clean condition. Final cleaning as required in Section 01 74 00.

3.5 Protecting Installed Construction

A. Comply with Section 07 76 00.

B. Protecting windows from damage by chemicals, solvents, paint or other construction operations that may cause damage.

End of Section

BASE COAT SCRATCH & BROWN STUCCO

♦ The Pro's Choice Since 1936

Sakrete® Base Coat Scratch and Brown Stucco is a gray, blended, water resistant, portland/lime cement-based, material used for scratch and brown coat stucco work.

Features:

- Meets ASTM C926 Standard Specification for Application of Portland Cement-Based Plaster
- Preblend with sand requiring only the addition of water
- Can be used in a 3 coat system or 2 coat scratch and brown application
- Water resistant with a breathable finish

Use For:

- Concrete Block
- Vertical and overhead applications
- Scratch and Brown
- Applications over metal lath, welded or woven wire lath in accordance with ASTM C1063
- Brick or Stone

Yield/Water/Coverage:

Bag Size	Trowel Applied	Spray Applied	Water
80 lb (36.3 kg)	70 ft² (6.4 m²) at 1/8" (3.2 mm) thick or 35 ft² (3.2 m²) at 1/4" (6.4 mm) thick	60 ft² (5.5 m²) at 1/8" (3.2 mm) thick	1.5 gal (5.8 L)

NOTE: Yield and water are approximate. The yield above does not allow for waste and spillage. Coverage can vary depending upon texture, weather, method of application, workmanship and other conditions.

Color:

Gray

Preparation/Application:

For best results all material should be stored between 40°F (4°C) and 90°F (32°C).

1. Remove all unsound concrete, mortar, grease, oil, paint and other foreign materials that will inhibit performance.
2. When applying over a base coat, CMU (Concrete Masonry Unit) or other porous surfaces, dampen the surface first.
3. When applying over a smooth non-absorbent surface follow the provisions of ASTM C926 for surface treatment and the use of Sakrete Bonder & Fortifier or Sakrete Concrete Glue.
4. When used over old stucco, Sakrete Concrete Glue or Sakrete Bonder/ Fortifier is required.

Refer to:

- ASTM D4258 Surface Cleaning of Concrete before painting
- ASTM C926 Application of Portland Cement Plaster
- ACI 524R Guide to Portland Cement Plastering

Placement:

1. Apply a scratch and brown coat in accordance with ASTM C926 prior to application of the stucco.
2. Install to a minimum thickness in accordance with the standards referenced.
3. Finish according to the texture specified. Wood floats are preferred.
4. Over-floating the material can result in color variations, mottling and surface defects.
5. The air, mix & substrate temperatures should all be between 40°F (4°C) to 90°F (32°C).

Spray Application:

Note: The following information is offered as a guide only. Specific product, equipment, application conditions and user experience will influence proper application results. Consult with the equipment manufacturer for equipment handling techniques. Field Test material with equipment prior to starting project.

Spray an even, consistent coat, moving the nozzle with a steady, even motion, maintaining the same distance and angle from the wall.

Progressive Cavity Pump	Hose diameter & max length	Gun	Tip	Pressure at Pump	Pressure at Gun
2.5 L	1" to 1.5" (25.4 to 38.1 mm)	Pole	7/16" to 9/16" (11.1 to 14.3 mm)	300-400 psi (2.1-2.8 MPa)	Air compressor to furnish 50 psi (0.3 MPa)

Mixing:

1. Use clean tools and potable water. A mixer will help with uniformity.
2. Use approximately 1 1/2 gal (5.8 L) of water per 80 lb (36.3 kg) bag.
3. Place the water In the mixer, gradually adding the stucco to the mixing water and mix until material is wet and of a trowelable consistency (about 3 - 4 minutes).
4. Water and mixing time must be kept to a minimum and be consistent between batches. Inconsistent amounts of water from bag to bag will result in color variations on the wall.

BASE COAT SCRATCH & BROWN STUCCO

♦ The Pro's Choice Since 1936

5. Allow mixer to sit for 2 minutes, than remix for one minute. A small amount of water may be added at this time if mix is stiff.
6. Mix only quantities that can be applied within one hour.
7. If mixture becomes stiff and difficult to trowel, discard it. Do not re-temper. Re-tempering will seriously affect performance.
8. When used over porous substrates and/or during hot, dry weather replace 1/2 gallon of water with the Sakrete Bonder & Fortifier or prime with Sakrete Concrete Glue.

Note: Refer to applicable sections of the standards referenced. DO NOT re-temper. Re-tempering will seriously affect color. When using Sakrete Bonder & Fortifier, pre-dilute with water first before mixing with the stucco. The addition of Bonder & Fortifier improves bond, curing, reduces shrinkage cracks, improves color retention and helps reduce efflorescence.

Curing:

1. Proper curing is critical for sound results.
2. Protect newly applied substrates from rain for 24 hours. Protect from freezing for 24 hours after application.
3. Materials modified with Sakrete Bonder & Fortifier should be air cured, unless hot and/or drying winds or low humidity are present. Under such conditions if not modified, lightly fog spray.
4. Cure per American Concrete Institute 308-Standard Practice for Curing Concrete. As with all stucco, surface cracking may occur due to curing conditions, control joint configurations, over-watering, over-troweling or other conditions beyond the control of the manufacturers of Sakrete products.
5. Efflorescence is a naturally occurring phenomenon associated with portland cement based products. Elevated mineral content, salts, or other particulates can exacerbate this condition.

Precautions:

- DO NOT apply over substrates that are frozen.
- DO NOT apply if air or substrate temperature is below 40°F (4°C) or above 90°F (32°C).
- DO NOT apply when temperature is expected to fall below 40°F (4°C) within 48 hours.
- DO NOT over-water.
- DO NOT over-float material.
- DO NOT use high mineral content or salt water.
- DO NOT apply over painted, sealed or slick surfaces.

NOTE: Proper application and installation of all Sakrete products are the responsibility of the end user.

Safety:

READ and UNDERSTAND the Safety Data Sheet (SDS) before using this product. WARNING: Wear protective clothing and equipment. For emergency information, call CHEMTREC at 800-424-9300 or 703-527-3887 (outside USA).
KEEP OUT OF REACH OF CHILDREN.

Limited Product Warranty:

The manufacturer warrants that this product shall be of merchantable quality when used or applied in accordance with the manufacturer's instructions. This product is not warranted as suitable for any purpose other than the general purpose for which it is intended. This warranty runs for one (1) year from the dates the product is purchased. ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ON THIS PRODUCT IS LIMITED TO THE DURATION OF THIS WARRANTY. Liability under this warranty is limited to replacement or defective products or, at the manufacturer's option, refund of the purchase price. CONSEQUENTIAL AND INCIDENTAL DAMAGES ARE NOT RECOVERABLE UNDER THIS WARRANTY.

FINISH COAT STUCCO

♦ The Pro's Choice Since 1936

Sakrete® Finish Coat Stucco is a blended, decorative, water resistant, portland /lime cement-based, finish coat stucco for use as a decorative finish coat stucco for vertical and overhead application.

Features:

- Meets ASTM C926 Standard Specification for Application of Portland Cement-Based Plaster
- Preblend with sand requiring only the addition of water
- Can be used in a 3 coat system or 2 coat scratch and brown application
- Water resistant with a breathable finish

Use For:

- Concrete Block
- Vertical and overhead applications
- Scratch and Brown
- Applications over metal lath, welded or woven wire lath in accordance with ASTM C1063
- Brick or Stone

Yield/Water/Coverage:

Bag Size	Trowel Applied	Spray Applied	Water
80 lb (36.3 kg)	70 ft² (6.4 m²) at 1/8" (3.2 mm) thick or 35 ft² (3.2 m²) at 1/4" (6.4 mm) thick	60 ft² (5.5 m²) at 1/8" (3.2 mm) thick	1.5 gal (5.8 L)

NOTE: Yield and water are approximate. The yield above does not allow for waste and spillage. Coverage can vary depending upon texture, weather, method of application, workmanship and other conditions.

Color:

Gray or White

Preparation/Application:

For best results all material should be stored between 40°F (4°C) and 90°F (32°C).

1. Remove all unsound concrete, mortar, grease, oil, paint and other foreign materials that will inhibit performance.
2. When applying over a base coat, CMU (Concrete Masonry Unit) or other porous surfaces, dampen the surface first.
3. When applying over a smooth non-absorbent surface follow the provisions of ASTM C926 for surface treatment and the use of Sakrete Bonder & Fortifier or Sakrete Concrete Glue.
4. When used over old stucco, Sakrete Concrete Glue or Sakrete Bonder/ Fortifier is required.

Refer to:

- ASTM D4258 Surface Cleaning of Concrete before painting
- ASTM C926 Application of Portland Cement Plaster
- ACI 524R Guide to Portland Cement Plastering

Placement:

1. Apply a scratch and brown coat in accordance with ASTM C926 prior to application of the stucco.
2. Install to a minimum thickness in accordance with the standards referenced.
3. Finish according to the texture specified. Wood floats are preferred.
4. Over-floating the material can result in color variations, mottling and surface defects.
5. The air, mix & substrate temperatures should all be between 40°F (4°C) to 90°F (32°C).

Spray Application:

Note: The following information is offered as a guide only. Specific product, equipment, application conditions and user experience will influence proper application results. Consult with the equipment manufacturer for equipment handling techniques. Field Test material with equipment prior to starting project.

Spray an even, consistent coat, moving the nozzle with a steady, even motion, maintaining the same distance and angle from the wall.

Progressive Cavity Pump	Hose diameter & max length	Gun	Tip	Pressure at Pump	Pressure at Gun
2.5 L	1" to 1.5" (25.4 to 38.1 mm)	Pole	7/16" to 9/16" (11.1 to 14.3 mm)	300-400 psi (2.1-2.8 MPa)	Air compressor to furnish 50 psi (0.3 MPa)

Mixing:

1. Use clean tools and potable water. A mixer will help with uniformity.
2. Use approximately 1 1/2 gal (5.8 L) of water per 80 lb (36.3 kg) bag.
3. Place the water In the mixer, gradually adding the stucco to the mixing water and mix until material is wet and of a trowelable consistency (about 3 - 4 minutes).
4. Water and mixing time must be kept to a minimum and be consistent between batches. Inconsistent amounts of water from bag to bag will result in color variations on the wall.

5. Allow mixer to sit for 2 minutes, than remix for one minute. A small amount of water may be added at this time if mix is stiff.
6. Mix only quantities that can be applied within one hour.
7. If mixture becomes stiff and difficult to trowel, discard it. Do not re-temper. Re-tempering will seriously affect performance.
8. When used over porous substrates and/or during hot, dry weather replace 1/2 gallon of water with the Sakrete Bonder & Fortifier or prime with Sakrete Concrete Glue.

Note: Refer to applicable sections of the standards referenced. DO NOT re-temper. Re-tempering will seriously affect color. When using Sakrete Bonder & Fortifier, pre-dilute with water first before mixing with the stucco. The addition of Bonder & Fortifier improves bond, curing, reduces shrinkage cracks, improves color retention and helps reduce efflorescence.

Curing:

1. Proper curing is critical for sound results.
2. Protect newly applied substrates from rain for 24 hours. Protect from freezing for 24 hours after application.
3. Materials modified with Sakrete Bonder & Fortifier should be air cured, unless hot and/or drying winds or low humidity are present. Under such conditions if not modified, lightly fog spray.
4. Cure per American Concrete Institute 308-Standard Practice for Curing Concrete. As with all stucco, surface cracking may occur due to curing conditions, control joint configurations, over-watering, over-troweling or other conditions beyond the control of the manufacturers of Sakrete products.
5. Efflorescence is a naturally occurring phenomenon associated with portland cement based products. Elevated mineral content, salts, or other particulates can exacerbate this condition.

Precautions:

- DO NOT apply over substrates that are frozen.
- DO NOT apply if air or substrate temperature is below 40°F (4°C) or above 90°F (32°C).
- DO NOT apply when temperature is expected to fall below 40°F (4°C) within 48 hours.
- DO NOT over-water.
- DO NOT over-float material.
- DO NOT use high mineral content or salt water.
- DO NOT apply over painted, sealed or slick surfaces.

NOTE: Proper application and installation of all Sakrete products are the responsibility of the end user.

Safety:

READ and UNDERSTAND the Safety Data Sheet (SDS) before using this product. WARNING: Wear protective clothing and equipment. For emergency information, call CHEMTREC at 800-424-9300 or 703-527-3887 (outside USA).
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ASPENTI 20 OUTDOOR WALL

VISUAL COMFORT & CO.

PRODUCT FEATURES

- From the brand formerly known as Tech Lighting
- Powerful, long lasting (L70, 70,000 hours) dimmable LED tested against the highest quality standards to ensure it delivers consistent LED performance and color over time.
- Die-cast aluminum structure, powder coat finish, and stainless steel hardware for robust durability in harsh elements. appropriate for commercial use.
- Wet listed, IP65 (International Protection rating indicating resistance to dust and water. suitable and safe for commercial use).
- Available in 120V or 277V options. Available in modern finishes
- The LED Driver is housed within the junction box. (L. 3.35" | W. 1.14" | H. 1.1")

Bronze

Bronze

LAMPING

ORDERING INFORMATION

7000WAST	LENGTH (A)	FINISH	LAMP
	20 20"	Z BRONZE	-LED930 INTEGRATED LED 90 CRI 3000K 120V (T24)
		H CHARCOAL	-LED930-277 INTEGRATED LED 90 CRI 3000K 277V (T24)

7000WAST _____ _____ _____

JOB NAME _____

NOTES _____

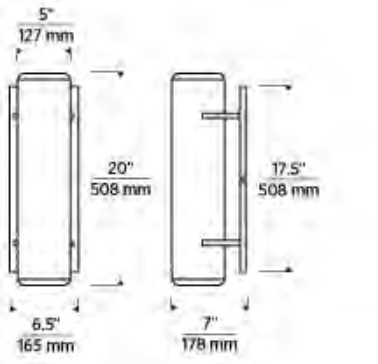
7400 Linder Avenue, Skokie, IL 60077
T 847.410.4400 | F 847.410.4500 | techlighting.com

ASPENTI 20 OUTDOOR WALL

VISUAL COMFORT & CO.

SPECIFICATIONS

PRIMARY MATERIAL	Aluminum
SHADE MATERIAL	Aluminum
NET WEIGHT	8 lbs
HEIGHT	20in
WIDTH	7in
LENGTH	6.5in
WET LISTED	
DAMP LISTED	
DRY LISTED	
GENERAL LISTING	ETL Listed
INCLUDES	



LAMPING SPECIFICATIONS

	LED LAMP	INTEGRATED LED	NON LED	NO LAMP
DELIVERED LUMENS		1028		
WATTS		13.7		
MAX WATTAGE PER BULB		13.7W		
		120V ELV, TRIAC 277V ELV, TRIAC		
CCT		3000K		
CRI		90 CRI		
LED LIFETIME				
L70		>60000		
AVERAGE BULB HOURS				
FIELD SERVICEABLE LED				
LAMP BASE		Integrated LED		
LAMP SHAPE		Integrated LED		
LAMP INCLUDED?		True		
WARRANTY**		5 Years		

* Dimming information available at www.techlighting.com/Downloads#dimming
** Visit techlighting.com for specific warranty limitations and details.

T20 / T24 / JA8 INFORMATION

	Integrated LED	Replacement LED Lamp	No Lamp *
This product can be used to comply with California Building Energy Efficiency Standards 2016 Title 24 Part 6 / JA8.	Yes		
This product can be used to comply with California Appliance Efficiency Standards 2016 Title 20 and may be shipped to and sold in California.	N/A		

* If a light fixture or component does not include a lamp or light source, it is the responsibility of the customer to select a lamp that meets the T24 and T20 requirements.

7400 Linder Avenue, Skokie, IL 60077
T 847.410.4400 | F 847.410.4500 | techlighting.com

27 GA - **PLANKS** SANDWICH DOORS / POLYSTYRENE INSULATED

Model 2327
Short Windows

Model 2347
Long & StyleLite Windows

Model 2357
Oversized Windows

chiohd.com

1485 Sunrise Dr.
Arthur, IL 61911
(800) 677-2650

STANDARD FEATURES

- 27 gauge interior/exterior face, woodgrain embossed steel.
- 2” thick sections
- Tongue and groove section joints
- 18”, 21”, and 24” section heights
- 1-13/16” polystyrene insulation
- R-Value = 10.29
- Center stile in top section
- End and center stiles: 20 ga
- No lock standard

PRE-FINISHED COLORS & ACCENTS WOODTONES

COLORS: WHITE, ALMOND, SANDSTONE, BROWN, BRONZE, GRAY, BLACK, GRAPHITE
WOODTONES: WALNUT, DRIFTWOOD, MAHOGANY, CEDAR, DARK OAK, NATURAL OAK, CARBON OAK

TRACK

- 15” radius bracket mount track
- Up to 8’0” height - 17 gauge 2” track
- Over 8’0” to 10’0” height - 16 gauge 2” track
- Over 10’0” - 14 gauge 2” track
- Vertical track to be bolted or riveted with track brackets
- Horizontal track to be reinforced with 14 gauge angle according to door size and weight.

HARDWARE

- Graduated hinges - 16 gauge
- Top fixtures - 16 gauge
- Bottom fixtures - 16 gauge
- Rollers - Black nylon tires on a solid steel shaft

WEATHER SEAL

- Double contact vinyl floor seal full width of door.

SPRING COUNTERBALANCE

Torsion springs mounted on a cross header shaft supported by galvanized steel ball-bearing end plates and center bracket[s]. Springs are custom designed for exact door weight, size, and trajectory according to curren ANSI/DASMA 102 standards for a minimum of 7,000 cycles. Counterbalanced with galvanized aircraft quality cables secured to the bottom of the door.

STRUTTING

Galvanized struts provided according to door size and design.

GLAZING

1/8” Single Pane†: Plain [DSB], Obscure, Tinted, Rain Glass, Polycarbonate, Frosted
1/2” Insulated†: Plain [DSB], Obscure, Tinted, Rain Glass, Frosted
1/2” Insulated Designer: Newport, Temple, Florence

FRAMING / INSTALLATION

Torsion spring mounting pads, jamb plates, header plates and associated track system hangers shall be furnished by other than C.H.I. All installation quality and workmanship is responsibility of Contractor and is to be executed in accordance with C.H.I. installation instructions, local and state building codes and work site safety regulations.

† Available in tempered.

PART 1 GENERAL

1.1 SECTION INCLUDES:

A. High-Density Fiberglass Direct Glaze Rectangular and Polygon shaped windows complete with frame and glazing.

1.1 RELATED SECTIONS

A. 01 33 00: Submittal Procedures: Shop Drawings, Product Data and Samples

B. 01 33 26: Source Quality Control Reporting

C. 01 62 00: Product Options

D. 01 65 00: Product Delivery Requirements

E. 01 66 00: Storage and Handling Requirements

F. 01 71 00: Examination and Preparation

G. 01 73 19: Installation

H. 01 74 23: Final Cleaning

I. 01 76 00: Protecting Installed Construction

J. 07 92 00: Joint Sealants

1.2 REFERENCES

A. ASTM International (ASTM):
1. C1036: Standard Specification for Flat Glass
2. C1048: Standard Specification for Heat-Strengthened and Fully Tempered Flat Glass
3. C1376: Standard Specification for Pyrolytic and Vacuum Deposition Coatings on Flat Glass
4. E1105: Standard Test Method for Field Determination of Water Penetration of Installed Exterior Windows, Skylights, Doors, and Curtain Walls, by Uniform or Cyclic Static Air Pressure Difference
5. E1300: Standard Practice for Determining Load Resistance of Glass in Buildings
6. E2112: Standard Practice for Installation of Exterior Windows, Doors, and Skylights
7. E2190: Standard Specification for Insulating Glass Unit Performance and Evaluation
8. E283: Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen
9. E330: Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference
10. E547: Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Cyclic Static Air Pressure Difference

B. American Architectural Manufacturer's Association/Window and Door Manufacturer's Association/Canadian Standards Association (AAMA/WDMA/CSA):
1. 101/I.S.2/A440: North American Fenestration Standard (NAFS)/Specification for Windows, Doors and Skylights

C. Window and Door Manufacturer's Association (WDMA):
1. 101/I.S.2 WDMA Hallmark Certification Program

D. Insulating Glass Manufacturer's Association/Insulating Glass Certification Council (IGMA/IGCC)

E. Architectural Aluminum Manufacturer's Association (AAMA):
1. 502: Air and Water Leakage Resistance testing of Installed Windows and Doors
2. 611: Voluntary Specification for Anodized Architecturally Finished Aluminum
3. 625: Voluntary Specification, Performance Requirements and Test Procedures for Superior Performance Organic Coatings on Fiber Reinforced Thermoset Profiles
4. 2603: Voluntary specification, performance requirements and test procedures for pigmented organic coatings on aluminum extrusions and panels
5. 2605: Voluntary specification, performance requirements and test procedures for superior performing organic coatings on aluminum extrusions and panels

F. National Fenestration Rating Council (NFRC):
1. 101: Procedure for Determining Fenestration Product Thermal Properties
2. 200: Procedure for Determining Solar Heat Gain Coefficients at Normal Incidence

1.3 SUBMITTALS

A. Shop Drawings: Submit shop drawings under provision of CSI MasterFormat Section 01 33 00.

B. Product Data: Submit product data for certified options under provision of CSI MasterFormat Section 01 33 00. Product performance rating information may be provided via quote, performance rating summary (NFRC Data), or certified performance grade summary (WDMA Hallmark data).

C. Samples:

1. Submit corner section under provision of CSI MasterFormat Section 01 33 00.

2. Specified performance and design requirements under provisions of CSI MasterFormat Section 01 33 00.

1.4 QUALITY ASSURANCE

A. Requirements: Consult local code for International Building Code (IBC) and International Residential Code (IRC) adoption year and pertinent revisions

B. Performance Grade as certified by AAMA/WDMA/CSA 101/I.S.2/A400
1. [Single Units]:
   a. CW-PG-40-FW
      1) Maximum frame size of 10'-1 3/8" (3083 mm) by 5'-2 9/16" (1589 mm), or 62-9/16" (1589 mm) by 10'-1 3/8"" (3083 mm), tested to 6.24 psf Air, 12.1 psf Water, +/- 40 psf Structural with annealed glass
      2) Maximum frame size of 7'-9 3/8" (2372 mm) by 11'-9 3/8" (3691 mm), or 141-3/8" (3691 mm) by 7'-9 3/8" (2372 mm), tested to 6.24 psf Air, 12.1 psf Water, +/- 40 psf Structural with tempered glass
   b. CW-PG-60-FW
      1) Maximum frame size of 10'-1 3/8" (3083 mm) by 5'-2 9/16" (1589 mm), or 5'-2 9/16" (1589 mm) by 10'-1 3/8" (3083 mm), tested to 6.24 psf Air, 12.1 psf Water, +/-60 psf Structural with annealed glass
      2) Maximum frame size of 7'-9 3/8" (2372 mm) by 11'-9 3/8" (3691 mm), or 141-3/8" (3691 mm) by 7'-9 3/8" (2372 mm), tested to 6.24 psf Air, 12.1 psf Water, +/- 60 psf Structural with tempered glass
2. [Mulled Units [Horizontal] [Vertical]]:

a. CW-PG-40-FW (Standard 1/2" x 2 ½" Aluminum)
   1) Maximum assembly frame size of 8'-0" (2438 mm) by 14'-0" (4267 mm), or 14'-0" (4267 mm) by 8'-0" (2438 mm), tested to 1.57 psf Air, 7.5 psf Water, +/- 40 psf Structural, maximum tributary width of 7'-0" (2134 mm) for assemblies, glass type varies based on aspect ratios
b. CW-PG-40-FW (1/2" x 2 ½" Flat Steel Mull)
   1) Maximum assembly frame size of 9'-0" (2743 mm) by 14'-0" (4267 mm), or 14'-0" (4267 mm) by 9'-0" (2743 mm), tested to 1.57 psf Air, 7.5 psf Water, +/- 40 psf Structural, maximum tributary width of 7'-0" (2134 mm) for assemblies, glass type varies based on aspect ratios
c. LC-PG-50-FW (1/2" x 2 ½" Flat Steel Mull)
   1) Maximum assembly frame size of 9'-0" (2743 mm) by 14'-0" (4267 mm), or 14'-0" (4267 mm) by 9'-0" (2743 mm), tested to 1.57 psf Air, 7.5 psf Water, +/- 50 psf Structural, maximum tributary width of 7'-0" (2134 mm) for assemblies, glass type varies based on aspect ratios
d. CW-PG-40-FW (1/2" x 4" Flat Steel Mull)
   1) Maximum assembly frame size of 11'-9 3/8" (3591 mm) by 14'-0" (4267 mm), or 14'-0" (4267 mm) by 11'-9 3/8" (3591 mm), tested to 1.57 psf Air, 7.5 psf Water, +/- 40 psf Structural, maximum tributary width of 7'-0" (2134 mm) for assemblies, glass type varies based on aspect ratios

3. [Mulled Units [Multi-High/Multi-Wide]]:
   a. LC-PG-50-FW (1/2" x 2 ½" Flat Steel Mull)
      1) Maximum assembly frame size of 6'-0" (1828 mm) by 14'-0" (4267 mm), or 14'-0" (4267 mm) by 6'-0" (1828 mm), tested to 1.57 psf Air, 7.5 psf Water, +/- 50 psf Structural, maximum tributary width of 7'-0" (2134 mm) for assemblies, glass type varies based on aspect ratios
   b. CW-PG-40-FW (1/2" x 2 ½" Flat Steel Mull)
      1) Maximum assembly frame size of 6'-0" (1828 mm) by 14'-0" (4267 mm), or 14'-0" (4267 mm) by 6'-0" (3591 mm), tested to 1.57 psf Air, 7.5 psf Water, +/- 40 psf Structural, maximum tributary width of 7'-0" (2134 mm) for assemblies, glass type varies based on aspect ratios
   c. CW-PG-40-FW (1/2" x 4" Flat Steel Mull)
      1) Maximum assembly frame size of 9'-0" (2743 mm) by 14'-0" (4267 mm), or 14'-0" (4267 mm) by 9'-0" (2743 mm), tested to 1.57 psf Air, 7.5 psf Water, +/- 40 psf Structural, maximum tributary width of 7'-0" (2134 mm) for assemblies, glass type varies based on aspect ratios
   d. CW-PG-40-FW (2" x 4" Tube Steel Mull)
      1) Maximum assembly frame size of 10'-0" (3048 mm) by 16'-1 1/2" (4267 mm), or 16'-1 1/2" (4267 mm) by 10'-0" (3048 mm), tested to 1.57 psf Air, 7.5 psf Water, +/- 40 psf Structural, maximum tributary width of 7'-0" (2134 mm) for assemblies, glass type varies based on aspect ratios

C. NFRC Certified U-Value:
   1. Gateway tested frame size of 6'-6" (1981 mm) by 6'-6" (1981 mm)

D. Forced Entry Resistance: Grade 10

1.5 DELIVERY, STORAGE, AND HANDLING

A. Comply delivery, storage and handling per Section 01 65 00

B. Deliver in original packaging and protect from weather

C. Store window units in an upright position in a clean and dry storage area above ground to

protect from weather under provision of Section 01 66 00

1.6 PROJECT CONDITIONS

A. Maintain environmental conditions (temperature, humidity, and ventilation) within the limits recommended by the manufacture for optimum results. Do not install products under environmental conditions outside of manufacture's recommended limits.

1.7 WARRANTY

Complete and current warranty information is available at www.marvin.com/warranty (effective 10/29/2018). The following summary is subject to the terms, condition, limitations and exclusions set forth in the Marvin Windows and Door Limited Warranty and Products in Coastal Environments Limited Warranty Supplement:

A. Glass Components:
   1. Glass warranties apply to factory-installed glass or Marvin supplied glass installed by Marvin-authorized service personnel. Standard insulating glass with stainless steel spacers is warranted against seal failure caused by manufacturing defects and resulting in visible obstruction through the glass for twenty (20) years in sizes up to sixty (60) square feet, and for ten (10) years in sizes sixty (60) square feet and larger. Non-tempered glass is warranted against stress cracks caused by manufacturing defects for ten (10) years. All other glass and glass features are provided with the same warranties, limitations, and exclusions Marvin receives from its supplier; contact Marvin for further details.

B. Exterior Finish:
   1. Marvin's standard exterior composite cladding finish is warranted against manufacturing defects per AAMA 625, Section 5, for ten (10) years.

C. Interior Finish:
   1. Factory-applied interior coated aluminum finish is warranted to be free from finish defects for a period of ten (10) years. Anodized interior aluminum finish is warranted to be free from manufacturing defects for five (5) years.

D. Non-Glass Components:
   1. Hardware and other non-glass components are warranted to be free from manufacturing defects for ten (10) years. Stainless steel hardware and hardware with PVD finishes installed in coastal environments are warranted to be free from manufacturing defects that result in abnormal deterioration of the finish for a period of ten (10) years. Other hardware finishes are not warranted in coastal environments. Electric operators and other motorized accessories are provided with the same warranties, limitations, and exclusions Marvin receives from its supplier; contact Marvin for further details.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Acceptable Manufacturer: Marvin Windows and Doors, States Avenue, Warroad, Minnesota 56763, 218-386-1430, www.marvin.com

2.2 FABRICATION

A. Frame:
   1. Exterior: High-Density Fiberglass one piece frame with vinyl nailing finNOTE TO SPECIFIER: Installation is screw through jamb, nailing fin is intended for placementInterior: Extruded Aluminum Covers

a. Dual-pane 15/16” (24 mm) glass, covers are 2-7/8” (73 mm) deep
b. [Dual-pane] [Triple-pane] 1-1/4” (32 mm) glass, covers are 2 19/32” (66 mm) deep [Optional Frame Filler: Extruded Aluminum 9/16” (14 mm) x 1/4”(6 mm)] Overall Thickness: 1-7/16” (37 mm)

4. Jamb Depth: 4-1/2” (114 mm)

B. Glazing:
1. [Dual-Pane] [Triple-Pane] insulating annealed one lite glass with preserve film on interior and exterior panes
   a. Insulating glass per ASTM E2190
   b. Glass thickness shall be sized to rated design pressure per ASTM E-1300
2. [Dual-Pane] [Triple-Pane] insulating tempered one lite glass
   a. Safety glazing per CPSC 16 CFR 1201, SGCC, & CAN/CGSB
3. Configurations:
   a. Dual-Pane insulating glass:
      1) [15/16” (24 mm)] [1-1/4” (32 mm)] Overall thickness
      2) Surface Treatment:
         a) Low E Coating: [Low E1] [Low E2] [Low E3] [Low ELR] [Low E2/ERS] [Low E3/ERS] [Obscure/Low E1] [Low E2/Obscure] [Low E3/Obscure] [Frost/E1] [E2/Frost] [E3/Frost] [Gray Tint] [Bronze Tint] [Gray Tint/Low E1] [Gray Tint/Low E2] [Bronze Tint/Low E1] [Bronze Bronze Tint/Low E2]
      3) Gas Fill:
         a) [Air with capillary tubes] [Argon]
   b. Triple-Pane insulating glass:
      1) 1-1/4” (32 mm) or 1 9/16” (40 mm) Overall thickness
      2) Surface Treatment:
         a) [Low E1/E1] [Low E2/E1] [Low E3/E1]
         b) [Low E3/E1/ERS][Low E2/E1/ERS]
      3) Gas Fill:
         a) [Air with capillary tubes] [Argon]
4. Perimeter spacer material:
   a. [Black painted Stainless Steel] [Black painted Aluminum]
   b. Seal: Black PIB with silicone sealant
5. Simulated Frame Divider:
   a. Optional 2-7/8” (73 mm) bar used to divide one lite glass in one direction [vertical] [horizontal]
   b. Dual spacers in all air spaces

C. Configuration: [Rectangle/Square] [Right Triangle Left/Right] [Isosceles Triangle] [Trapezoid Left/Right] [Pentoid]

D. Finish:
1. Interior Frame and Exterior Mull Covers:
   a. Painted extruded aluminum covers with 70% PVDF coating applied that meets AAMA 2605 requirements in [Gunmetal]
   b. Painted extruded aluminum covers with acrylic coating applied that meets AAMA 2603 requirements in [Bronze] [Ebony] [Stone White]
   c. Anodize extruded aluminum covers that meet Class 1, AAMA 611 requirements in Clear
      Anodize
2. Exterior Mull Covers
   a. Painted extruded aluminum covers with 70% PVDF coating applied that meets AAMA 2605 requirements in [Gunmetal]
3. Exterior Frame:

a. High-Density Fiberglass coated with a Fluoropolymer FEVE ether) resin with ceramic pigments designed to meet AAMA 625 requirements [Bronze] [Ebony] [Gunmetal] [Silver] [Stone White]

4. [Split finishes optional between Interior and Exterior]

PART 3 EXECUTION

3.1 EXAMINATION A ND PREPARATION

A. Verification of Condition:
   1. Before installation, verify openings are plumb, square and of proper dimensions as required in Section 01 71 00
   2. Report frame defects or unsuitable conditions to the General contractor before proceeding

B. Acceptance of Condition:
   1. Beginning of installation confirms acceptance of existing conditions

3.2 INSTALLATION

A. Assemble and install window/door unit(s) per manufacturer's instruction and reviewed shop drawing

B. Installation to comply with Section 01 73 19

C. Install sealant and related backing materials at perimeter of unit or assembly in accordance with Section 07 92 00. Do not use expansive foam sealant.

D. Install accessory items as required

3.3 FIELD QUALITY CONTROL

A. Unless otherwise specified, air leakage resistance tests shall be conducted at a uniform static pressure of 75 Pa (~1.57 psf). The maximum allowable rate of air leakage shall not exceed 2.3 L/sm2 (~0.45 cfm/ft^2)

B. Unless otherwise specified, water penetration resistance testing shall be conducted per AAMA 502 and ASTM E1105 at 2/3 of the fenestration products design pressure (DP) rating using "Procedure B" – cyclic static air pressure difference. Water penetration shall be defined in accordance with the test method(s) applied

3.4 CLEANING AND PROTECTION

A. Protect installed construction as required in Section 01 76 00

B. Remove visible labels and adhesive residue per manufacturer's instruction

C. Leave windows and glass in a clean condition, final cleaning as required in Section 01 74 23

D. Protecting windows from damage by chemicals, solvents, paint or other construction operations that may cause damage

END OF SECTION