

Additional Information

Figure #	Name	Description
1	USGS Map	USGS Map of Wailuku, showing location of property
2	TMK Map	Current Tax Map Showing Property Boundary and Location
3	Insurance Map	1914 Sanborn Insurance Map, Wailuku
4	Sketch Map	1919 Japanese Ichiran Sketch Map
5	Insurance Map	1927 Sanborn Insurance Map, Wailuku
6	Enumeration Map	1940 Enumeration District Maps, Maui, Wailuku
7	Smart Tract Map	1928 Smart Tract Map, Wailuku
8	Insurance Map	1950 Sanborn Insurance Map, Wailuku
9	Location Map	Wailuku Map of Historic Sites
10	Site Plan	Site Plan
11	Floor Plan	Floor Plan
12	Newspaper Article	Unsung Hero of Hawaiian Sugar, Honolulu Record, August 5, 1954.
13	Newspaper Article	Unsung Hero of Hawaiian Sugar, Honolulu Record, August 5, 1954 (Cont.)
14	Historic Photo	William Henry Crozier in Sugar Plantation Laboratory
15	Historic Photo	Crozier Family
16	Historic Photo	William Henry Crozier in Sugar Plantation

Figure 1: USGS Map of Wailuku, showing location of property



PLAT 14

SECOND DIVISION

DATE DEC 1964

PAGE 3

CONTAINING 14

ANYANCE SHEET

SUBJECT TO CHARGE

2246 Main Street, Wailuku
TMK: 3-4-014:008

Map of Wailuku, Maui, showing property lots, streets, and a highlighted parcel at 2246 Main Street, Wailuku, with TMK 3-4-014:008.

Figure 3: 1914 Sanborn Insurance Map, Wailuku



Figure 4: 1919 Japanese Ichiran Sketch Map

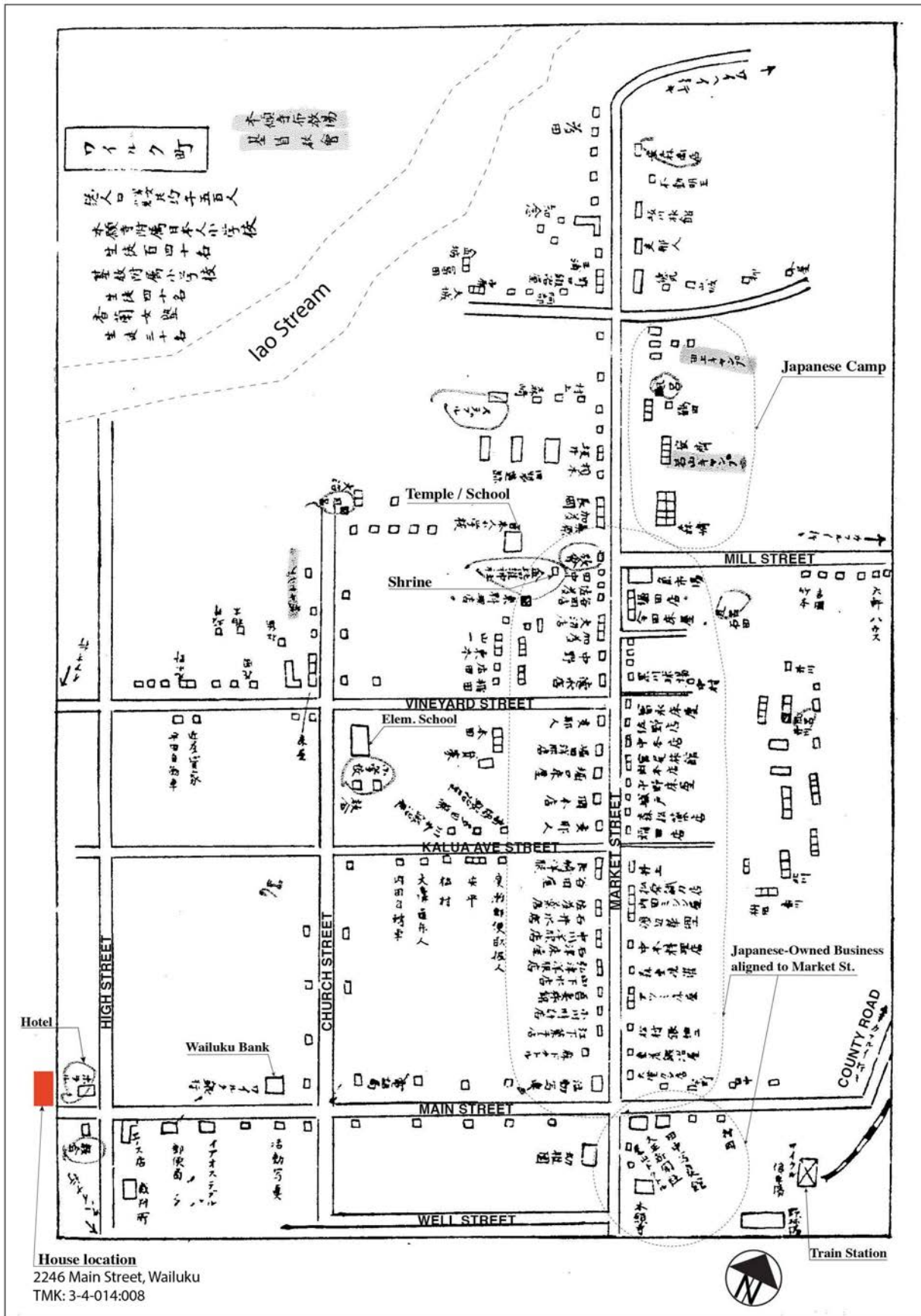


Figure 5: 1927 Sanborn Insurance Map, Wailuku



[illegible]

Figure 7: 1940 Census Enumeration District Map, Maui, Wailuku



Figure 8: 1950 Sanborn Insurance Map, Wailuku

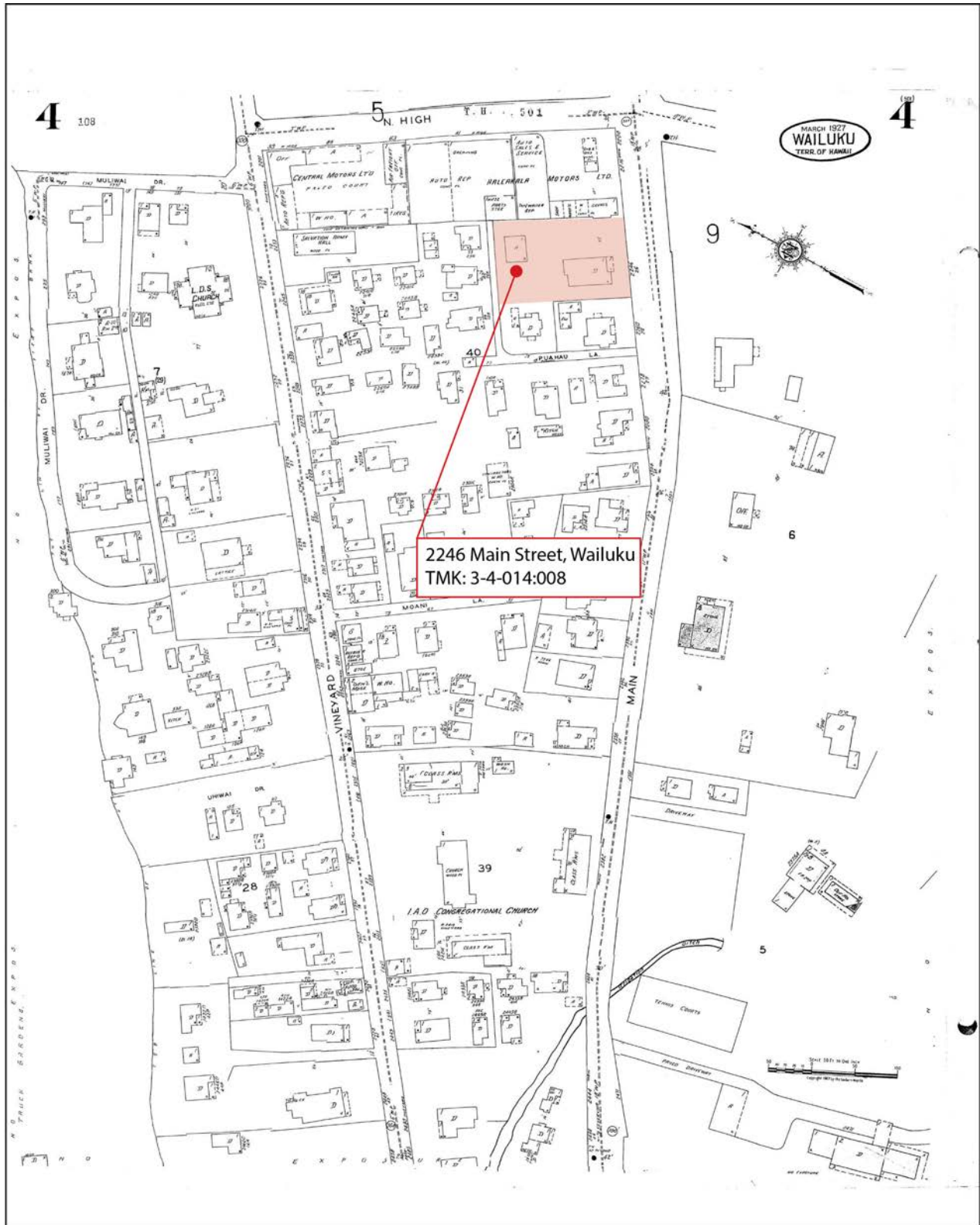
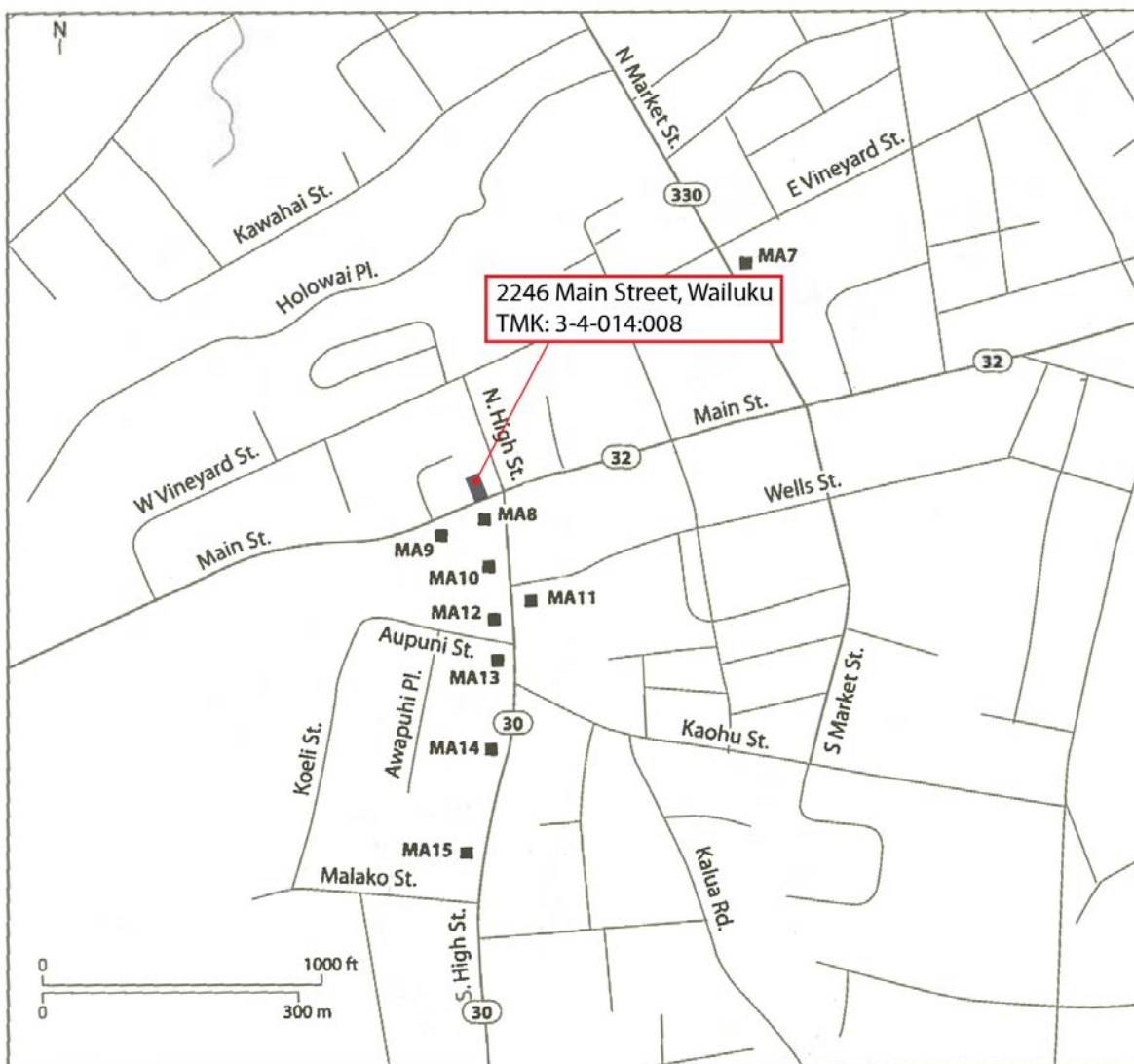


Figure 9: Location Map ¹, Wailuku Map of Historic Sites

This map is showing the historical sites within the Wailuku area. In 1905, Wailuku was the seat of government for the County of Maui. The following sites surround the Crozier Residence, which sits at the edge of this once vital government/mercantile center:

- MA8 Alexander House, 1836. 2331 W. Main St.
- MA9 Edward Bailey House, 1833. 2375 Main St.
- MA10 Kaahumanu Church, 1876, Edward Bailey. 103 S. High St.
- MA 11 Maui County Courthouse, 1907, H.L. Kerr. 150 S. High St.
- MA 12 Territorial Building, 1931, C.W. Dickey S. High and Aupuni St.
- MA13 Wailuku Library, 1928, C.W. Dickey. 251 S. High St.
- MA14 Wailuku Union Church, 1912, W.R. Patterson with Emory and Webb. 327 S. High St.
- MA 15 Wailuku Elementary School, 1904, Dickey and Newcomb. 355 S. High St.



¹ Hibbard, p. 194.

Figure 10: Site Plan, showing driving way, house and surroundings

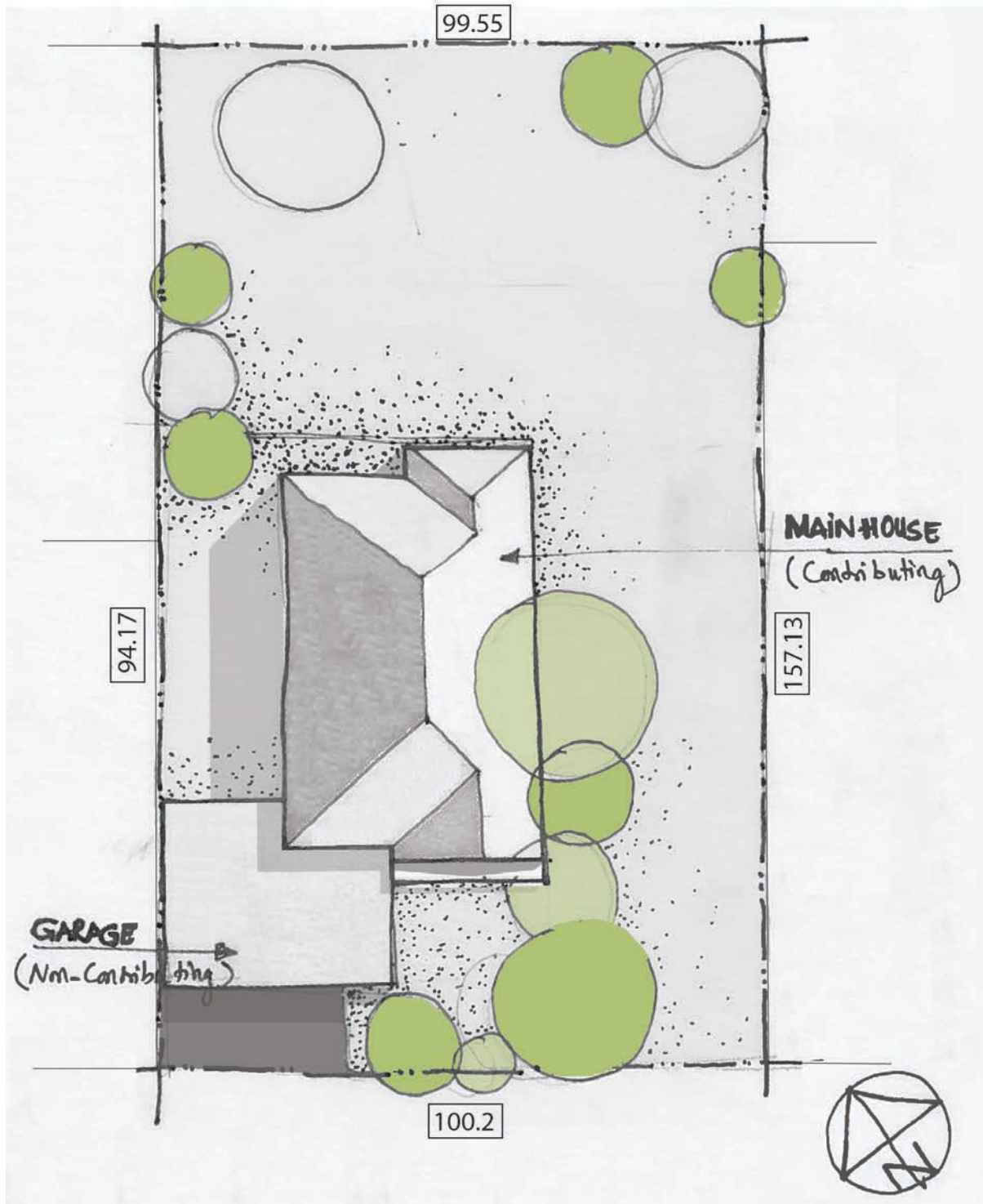


Figure 11: Floor Plan Sketch

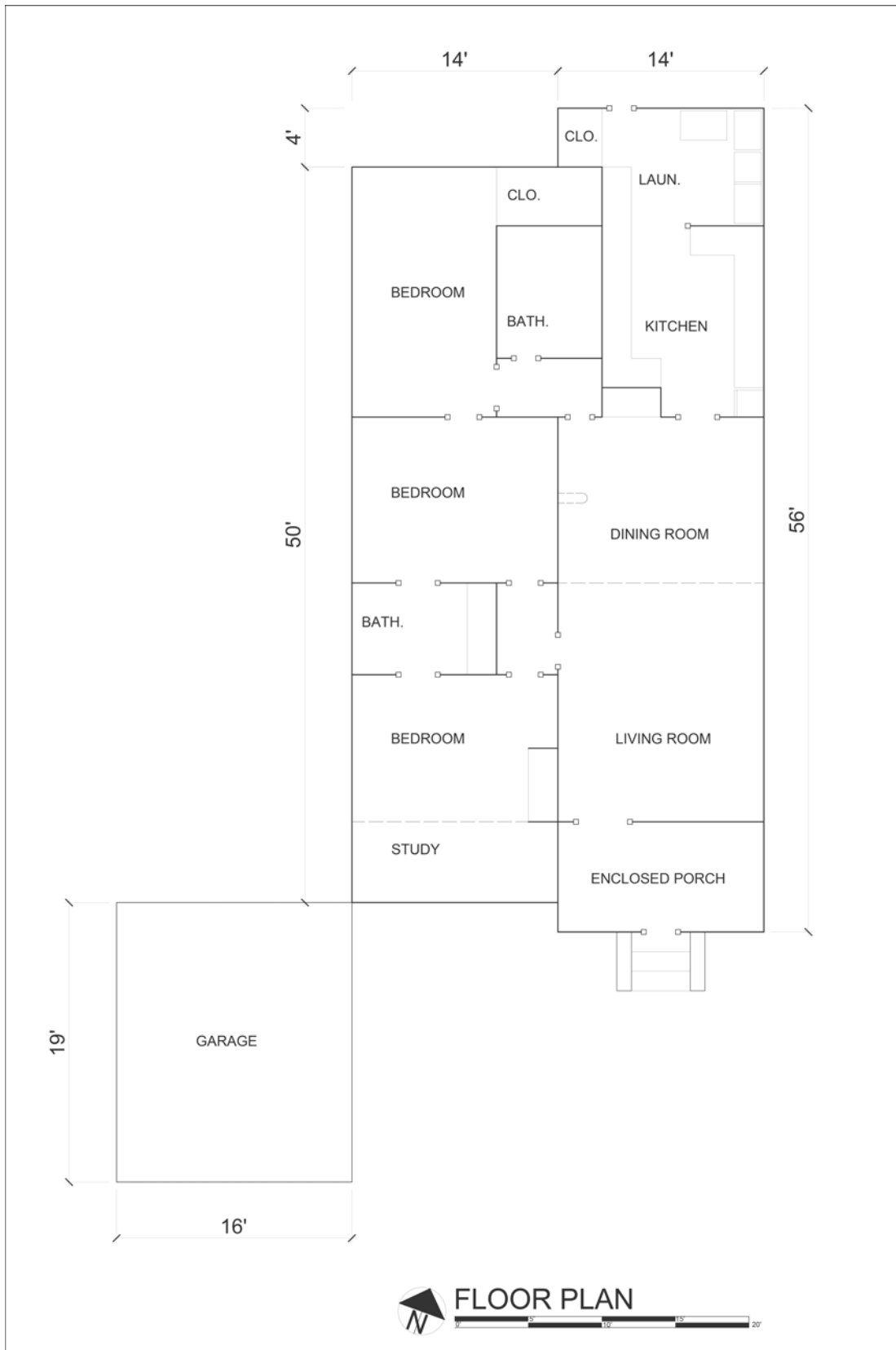


Figure 12: Newspaper Article: Unsung Hero of Hawaiian Sugar, Honolulu Record, August 5, 1954.

AUG. 5, 1954 ★ HONOLULU RECORD ★ C-1

Unsung Hero of Hawaiian Sugar

The Pacific Commercial Advertiser, Thurs. Dec 7 1916

NEW PROCESS OF SUGAR MAKING FOUND MAY ADD MILLIONS TO ISLAND INCOME

J. N. S. Williams Announces Discovery of Methods For Extracting Additional Three Per Cent of Sucrose From the So-called "Final Molasses" Before Meeting of Planters Association

ADDITIONAL COST IS LIGHT

INVENTION of a new process for the recovery of sucrose from final molasses that will mean a gain of at least three and half per cent in the commercial sugar crop of the islands, a money value of approximately \$2,525,000 a year on the average sugar crop.

THIS ANNOUNCEMENT created worldwide sensation since the process opened a way of extracting sugar from what it was believed "final molasses" and because it upset established theories on sugar extraction. William H. Crozier Sr., then a chemist at Papaaloa, never did receive public recognition while he was alive.

When J. N. S. Williams, field engineer for T. H. Davies & Co., read the sensational report on the new process of extracting more sugar out of "final molasses" at the Hawaiian Sugar Planters' Assn. meeting on Dec. 6, 1916, a tall man of managerial ability, with an owner's arm, was hard at work in the chemistry laboratory at Laupahoehoe Sugar Co.

Only when he died, in the obituary in the dailies, did William H. Crozier Sr. receive credit and public recognition for his great contribution to the world's sugar industry.

No Mention of Crozier

The Advertiser's front-page lead story on the Williams' report said (see cut) "Invention of a new process for the recovery of sucrose from final molasses that will mean a gain of at least three and half per cent in the commercial sugar crop of the islands, a money value of approximately \$2,525,000 a year on the average sugar price this year, was reported (to the HSPA meeting) by the inventor J. N. S. Williams..." (Our emphasis—Ed.)

Williams got the credit for the discovery. Nowhere is the name of William H. Crozier Sr. mentioned.

A letter from Williams to Crozier dated Dec. 5, 1916 and sent to the latter at Papaaloa explained:

"I enclose herewith a copy of a paper describing the new process for the recovery of sucrose from so-called Final Molasses, which I read at the meeting of the Hawaiian Sugar Planters' Association last Wednesday afternoon. I also enclose a copy of the 'Advertiser'... which gives newspaper comment on the announcement."

"No names, excepting that of the Laupahoehoe Sugar Company were mentioned in the paper which I read, for the reason that, although the fact has been established that sugar can be extracted in paying quantities from so-called Final Molasses, a great deal of

work has yet to be done to prove that the process will be a commercial success, and until this is done I think it is best not to mention any individual names in connection with this matter."

Why did Williams speak about "no names"? Was he self-conscious that he got the publicity?

Because of slow steamer mail, on Dec. 20, 1915, Crozier was writing Williams:

"I did not see any mention in the papers about recovery of sugar in waste molasses, did you put it up (to the HSPA) and what is the opinion?"

While the report did not mention names, the Advertiser story said:

"Mr. Williams' work on the new process has extended over two years in a series of painstaking experiments."

Applause for Hero

Explaining what the Williams invention meant to the sugar industry in money gains, the story continued:

"Taking the estimated sugar crop for the sugar year 1915-17—850,000 tons—and the average price for sugar received during the past year—\$3111 a ton—the three and a half per cent gain would represent a money gain on the marketable produce of \$2,525,250."

Williams was a big hero in the eyes of the sugar barons. The Advertiser described how the top brass of the industry reacted:

"Recognizing Mr. Williams' discovery as the biggest single achievement of the year in the work of increasing the sugar producing efficiency of the Hawaiian Islands, the members of the association greeted the reading of his report with a round of hearty applause."

Williams deserved some credit, and some boost in recognition of his contribution, for he had certain technical knowledge which he passed on to Crozier via letter, mostly. Williams was Crozier's superior in the T. H. Davies agency.

"It Is Surprising"

To this superior Crozier had written on March 12, 1916, on a matter which has brought additional tens of millions to the sugar industry since then:

"... I'm sending you by Parcel Post four jars Solidified Molasses that I have been experimenting with. I took a piece of fine gauze and put it into the hand centrifugal and it is surprising the amount of grain that it caught, there was a lot of the grain passed through with the Molasses so I put a piece of far paper behind the fine gauze and put the Molasses into the Centrifugal again and recovered a lot of the grain. I am not quite sure if some of it did not dissolve, although I don't think it did."

At Laupahoehoe Crozier was already analyzing "Final Molasses" (that from which all extractable sugar was taken out) from a few T. H. Davies plantations—Kaliwika, Kukaia, Paiahi—and it was found that boiled to a complete or almost complete absence of water, the sucrose contained in the molasses crystallized out in a very small, but distinctly formed and truly shaped sugar grain. This discovery overthrew the generally accepted opinion of the time that such a thing was impossible.

"You Are Doing Better"

On Nov. 7, 1916, one month before his report to the HSPA, Williams wrote Crozier on the molasses experiment:

"There is no thought of letting go at this stage, you have confirmed all previous experiments and are doing better than any of them, keep the road work up and we will reach the point we are aiming at very soon."

On Nov. 22, Williams wrote:

"Mr. Davies will be here next Tuesday, and I will be glad to have what information you can give me to lay before him when he arrives." (Apparently Mr. Davies was making his periodic trip to Hawaii from Britain, Ed.)

World Attention

The new discovery by Crozier attracted international attention. In the April 1917 issue of The International Sugar Journal, H. S. Prinsen Geerligs, Ph. D., wrote:

"With considerable astonishment I have read in several sugar papers... of a new scheme, advocated by Mr. J. N. S. Williams, intended to extract sugar from final molasses—one not working on a new basis, but only by the application of evaporation, cooling and curing in practically the same manner as usually done..."

"One reads further that it is a correct statement to say that the sucrose in all final molasses produced in the territory will crystallize out in a grain that is visible to the unaided eye if the molasses be evaporated to a density to say 99 degree Brix at ordinary temperature."

"I was very much struck by these statements, which, if true, tend to overthrow entirely all molasses-theories established for some decades past. All work devoted to the study of the formation of molasses made by numerous scientists and practical men for scores of years both in the province of beet and of cane sugar would be rendered void, if really one had only to evaporate one's final molasses to a density of 99 degree Brix to see all of the sucrose crystallize out in a condition which allows of its being extracted by centrifuging."

Williams answered Dr. Geerligs in the July 1917 issue of the International Sugar Journal, and uses his name in taking credit for the Laupahoehoe experiment, although he had written Crozier that it still was not time to mention names. Williams wrote:

"To my knowledge, and previous to my announcement in December 1916, no one had ever observed or published the fact that in the absence of water, sucrose will crystallize out of a compound of sucrose, glucose, gums, and ash."

"... I have shown that it is true that after greater concentration, more sugar crystallizes in molasses" (etc., etc. Our emphasis, Ed.)

"I Cannot Find"

On September 17, 1917, Williams who was taking issue with Dr. Geerligs, a sugar authority, wrote Crozier:

"I cannot find in any of your letters to me a statement of the method you use to determine the sucrose in the final molasses resulting from spinning in the molasses separator; will you be kind enough therefore to reply to the following questions by return mail."

"In determining the degree Brix of the molasses, to what extent do you dilute..."

"In determining the sucrose in this final molasses, what method do you use..."

"I am now engaged in writing up a report on low grade molasses for the Annual meeting of the H. S. P. A. and would be glad to have your reply as soon as you can send it." (Our emphasis—Ed.)

Williams wrote Crozier from Honolulu constantly, encouraging him and pushing him. For Crozier the work of experimenting with molasses was an extra load.

Other Work Besides...

On Nov. 12, 1917, Crozier wrote Williams:

"Just a few lines to let you know that there are more departments on this plantation that need look into besides the Boiling House and the Laboratory."

"On Wednesday Oct. 30 we got rain, not much but there were about 300 men put to cut cane and of course tried to flume it to the mill. The flumes were all so rotten that they broke..."

"On Nov. 4 we had a big rain that set the gulches running and lasted until Thursday and all the cane that got to the mill... 144 tons of cane with hundreds of tons scattered along the flume, and about 75 tons together with a part of the railroad down the Laupahoehoe gulch and both Burchar and Hutchinson hanging around the Mill and Office."

"Now first thing they will be saying that I done them up in their cane weights so it is a good time to look into the matter while I am still on the plantation."

Besides difficulties like these, (more on page C-8)



THE CROZIERs AT THEIR Papaaloa home located on the main highway, near the present location of the company bulletin board on the Honokaa side of the Papaaloa store by the sugar mill. Sitting with William H. Crozier Sr. is Mrs. Sara Doherty Crozier who marched in the torch parade with Queen Liliuokalani in protest against the white missionary-business interest bloc that overthrew her government. She was the only white woman who attended the Wailuku Democratic election rally with a Democratic banner in her hat in 1932, before the Democrats took over the national administration. Standing are (L) William Jr., and (R) Clarence, who as territorial legislator fought for reform measures and took Big Five interests head on.

Figure 13: Newspaper Article: Unsung Hero of Hawaiian Sugar, Honolulu Record, August 5, 1954.

C-8 ★ HONOLULU RECORD ★ AUG. 5, 1954

Unsung Hero

(from page C-1)

Crozier had numerous mechanical troubles during his experiments. But by Feb. 24, 1917, Williams was writing him:

"Negotiations in connection with putting in a very large plant for handling molasses under the new process are now pretty well advanced, and I will let you know at a later date just what has been done."

Fired From Job

It is said that Crozier was once considered for management at Paia plantation. But he reportedly told one of the Davies bosses that if anyone makes money he should be willing to pay his share of taxes and such talk by a potential manager didn't make a favorable impression on the executive.

Crozier never did get credit or recognition for his contribution to the sugar industry. He left the sugar industry with which he became associated as a luna shortly after coming here from New Zealand. He was not of manager material for the semi-feudal plantations. He was fired from his first job when he grabbed the assistant head luna at Paia plantation and dragged him off his horse and chased him off the field because he was whipping Chinese laborers.

Physically, Crozier was a big

man. Once he quit his work at Laupahoehoe plantation just to go to Honolulu to oar for the Myrtle boat club.

Was The Inventor

Because of his experience in knowledge about the sugar industry he was considered in 1919 for the territorial government's sugar expert position. His task would have been to advise homesteaders growing cane and to protect them, so that they would not be cheated out of payments and sugar contents of their crops.

RICE

The big interests fought Crozier and influential senators threatened Gov. McCarthy that they would take the appropriation for the sugar expert's position out of the budget if Crozier were to get the job. Before he died one year ago, he told a newspaperman that it still made him "burn up inside" to think how the government let down the Waialeale homesteaders.

Crozier never complained that he was not remunerated for his contribution to the sugar industry. He was active. He liked to work. He had a brilliant mind. He was the first man to build a bulldozer.

Crozier was an inventor. He was the inventor of the sugar processing method of 1916 which has brought millions to the island industry.

Pitting Worker Against Worker

SOURCE OF CONFLICT

"A FOOLISH STRIKE — The native laborers employed in discharging lumber vessels at the Eplaunde, and who were getting \$2 per day, struck on Thursday for \$3. The consequence was that the Chinamen were employed in their places at \$1.50. Mr. Wahineua, a sort of leader among the native dock laborers, was overheard to threaten violence to the Chinamen, but receiving an intimation that such a course would lead to the prompt arrest of those taking part in it, discretion was deemed to be the better part of valor. The natives are endeavoring to kill the geese that lay their golden egg." —Pacific Commercial Advertiser, Sat., March 27, 1880

that on Sunday last an affray occurred at Lahaina between some Chinese and the South Sea Islanders in the employ of the Pioneer Mill. The trouble arose about a vegetable garden. The Chinese made a rush with hoes, but the Islanders rallied with stones, which they threw with accuracy, compelling the Celestials to retreat in doors, with bloody noses. First blood for the Islanders. The overseer and the engineer of the plantation, coming on the field of battle, restored peace. —Pacific Commercial Advertiser, Sat., March 12, 1880

Fearful Approach

U. S. News and World Report declared in its June 11 issue: "Boom revival is not likely short of a new war." But the vast majority of the people do not want war. Only a sick economy needs periodic bloodletting and destruction on a mass scale to keep its wheels of production turning—mostly for production.

For the ninth successive month, employment in manufacturing has declined. Latest available figures—from April to May—show 193,000 workers were added to the army of unemployed.

The \$30 million General Motors Corp. received in payment for the destruction by fire of its Livonia, Mich., transmission plant is believed to be the biggest payoff ever made on a single insurance claim. British and U.S. insurance companies paid the bill.

CHINESE VS. SOUTH-SEA ISLANDERS

—We learn from the native newspaper Pae Aina.

Meat Consumption Less

The American Meat Institute predicted, May 12, that U. S. meat supply will be highest in 10 years—25 billion pounds—the second greatest production in history.

Production will be 160 million pounds MORE than in 1933, but per capita consumption will be only 151 pounds compared with 154 in 1933.

The increased surplus will force DOWN the price to producers. Packers will continue to profit from high consumer prices. —June 1954, California Farm Reporter

K. Higaki Store
Honolulu, Hawaii

Ishigo Store
Honolulu, Hawaii

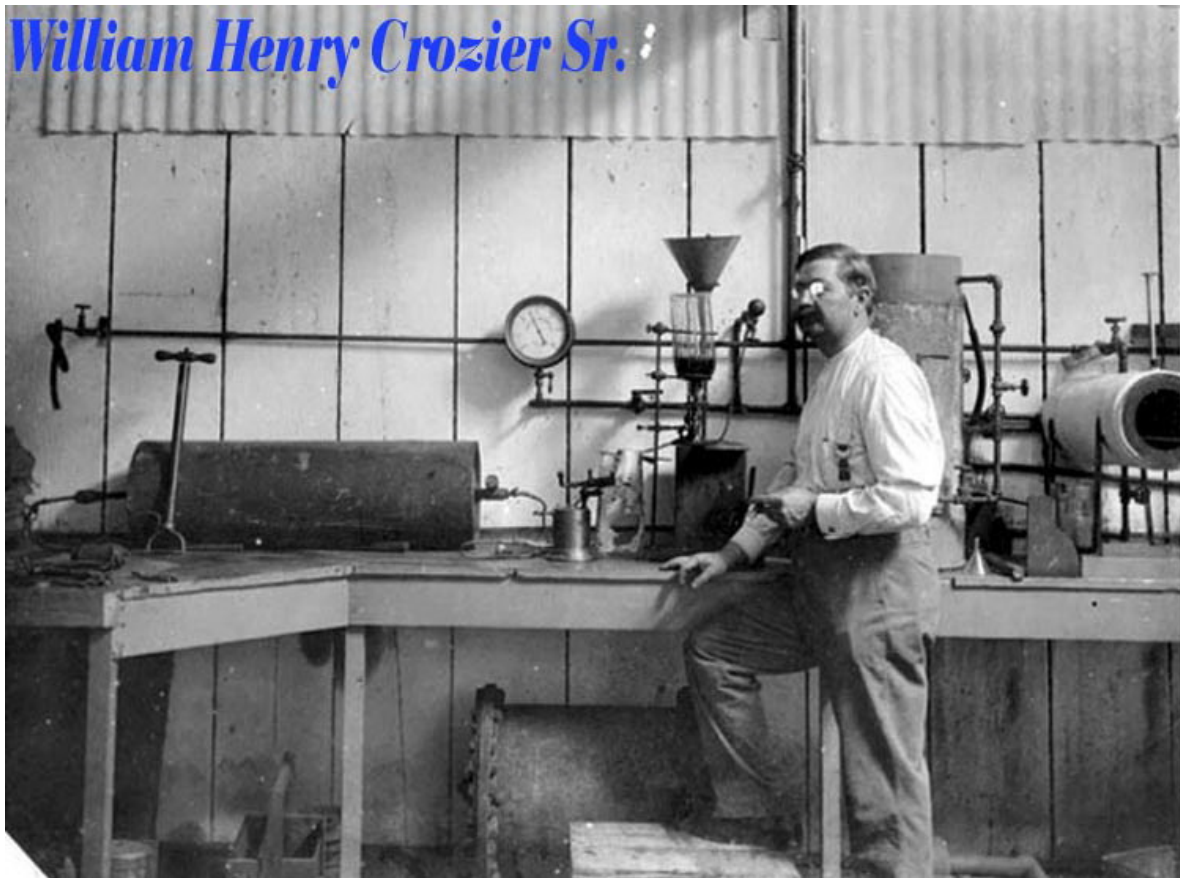
AKITA STORE & FOUNTAIN
Honolulu, Hawaii

Filipino Barber Shop
Honolulu, Hawaii

Kayumangui Store
Honolulu, Hawaii
Phones Honolulu 366-289

Figure 14: Historic Photograph

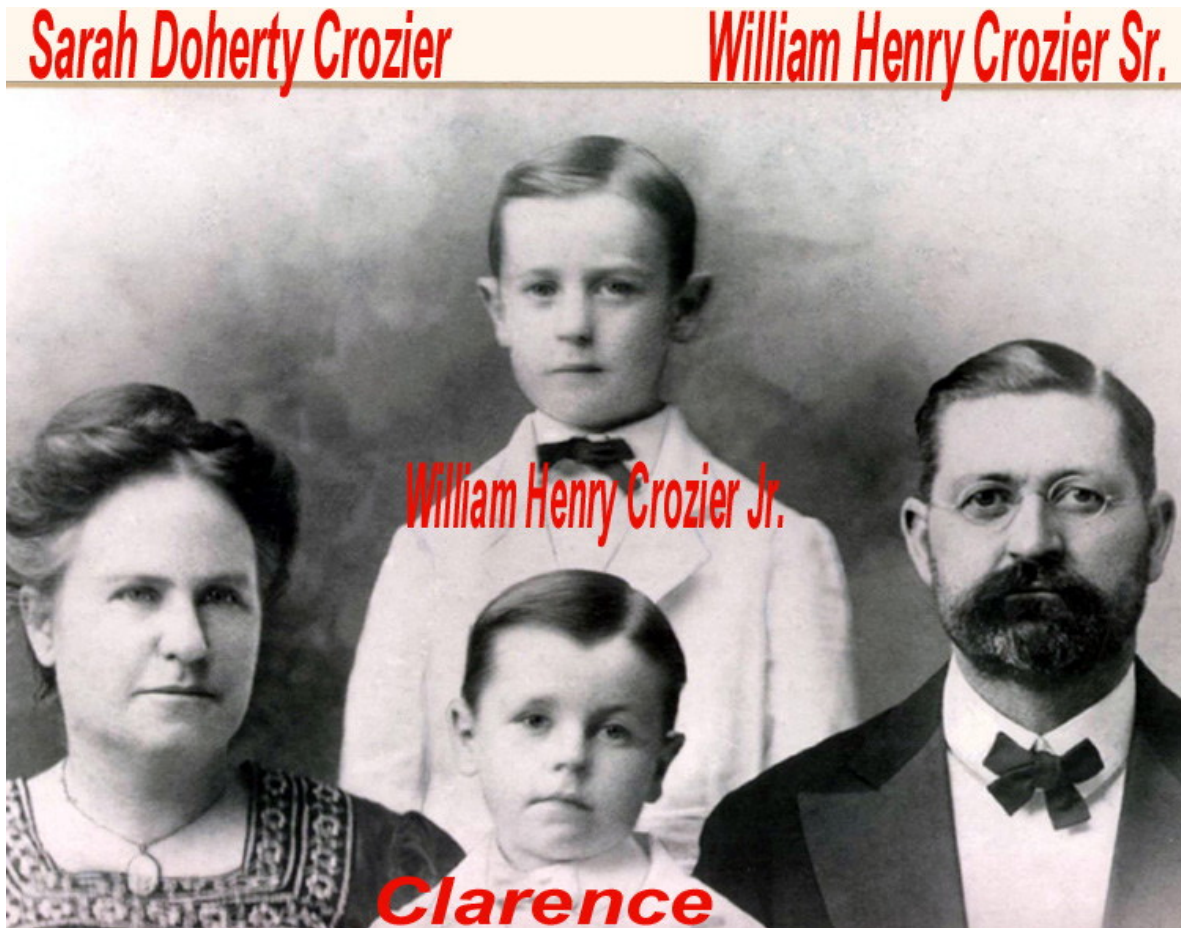
Name of Property: Crozier Residence
City or Vicinity: Wailuku
Photographer: Unknown
Date Photographed: c. 1920
Description of Photograph: William Henry Crozier Sr in Sugar Plantation Laboratory



Source: Ancestry.com

Figure 15: Historic Photograph

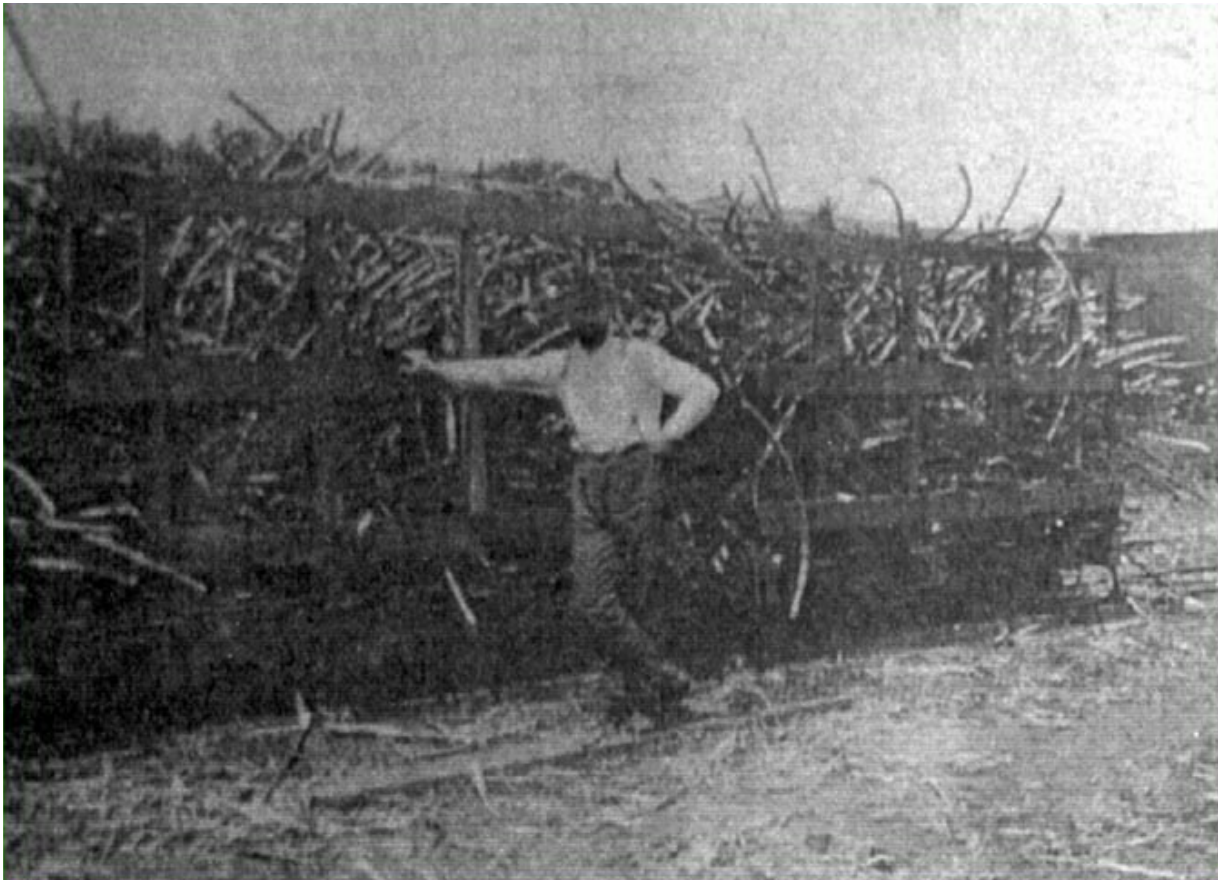
Name of Property: Crozier Residence
City or Vicinity: Wailuku
Photographer: Unknown
Date Photographed: c. 1910
Description of Photograph: Crozier Family



Source: Ancestry.com

Figure 16: Historic Photograph

Name of Property: Crozier Residence
City or Vicinity: Wailuku
Photographer: Unknown
Date Photographed: c. 1900
Description of Photograph: William Henry Crozier Sr in Sugar Plantation



Source: Ancestry.com

Photographs, Exterior:

Photo #	Name	Description
1 of 10	Setting	View looking east down Main Street with house at left of photo
2 of 10	Setting	View looking West down Main Street with house to the right photo
3 of 10	Property Exterior	Street view of property with large Cyprus tree at entry
4 of 10	Property Exterior	Gabled roof enclosed front porch with entry steps and door; entry porch enclosed in 1959
5 of 10	Property Exterior	Oblique side view, view looking northwest
6 of 10	Property Exterior	Rear oblique, view looking southeast
7 of 10	Property Exterior	Rear oblique, view looking southwest
8 of 10	Property Exterior	West side yard, laundry pole in foreground
9 of 10	Property Exterior	Under eave detail
10 of 10	Property Exterior	View of post and pier foundation

Photo Key:
Site Plan Exterior Photos

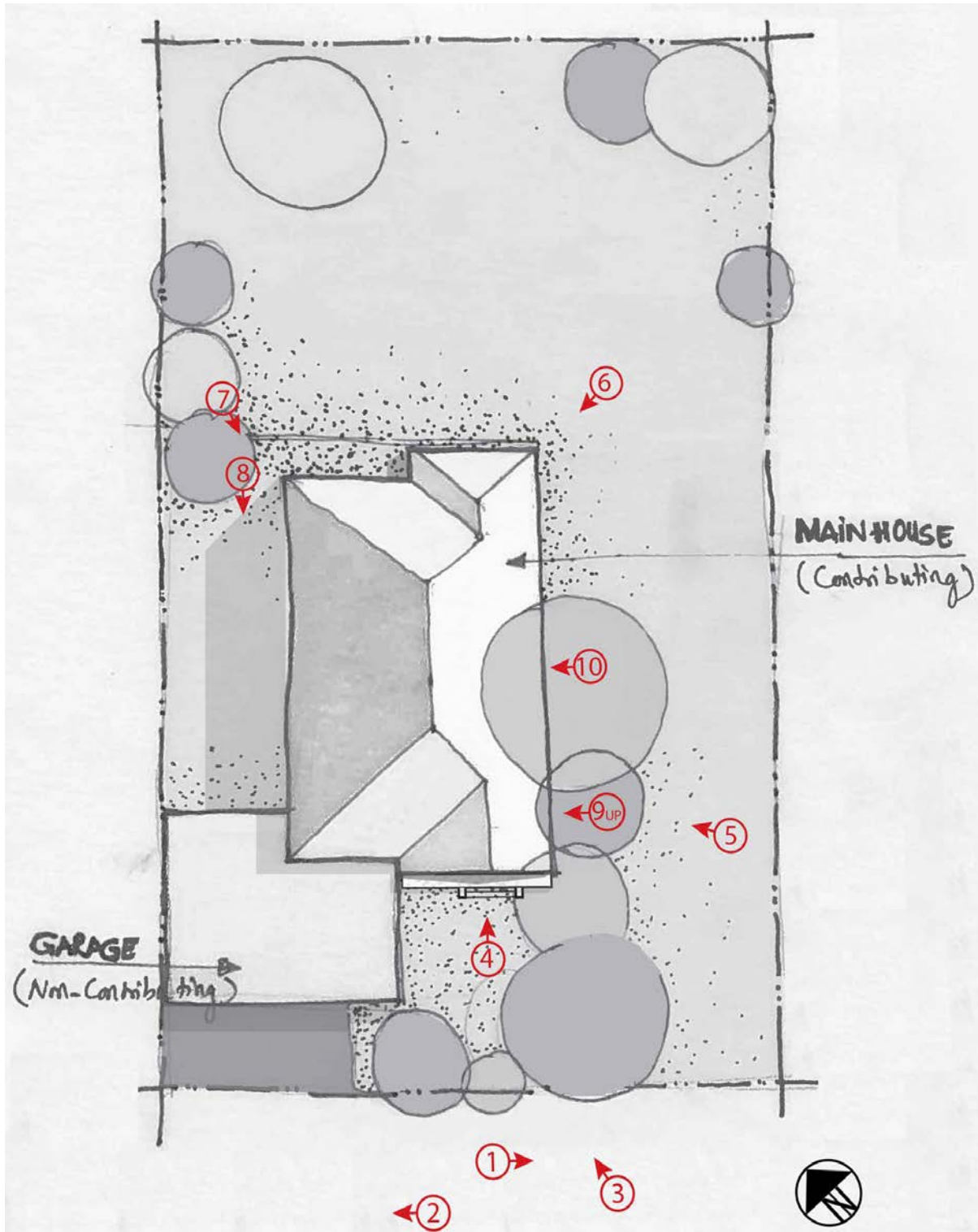


Figure 1 of 10:

Name of Property: Crozier Residence

City or Vicinity: Wailuku

Photographer: Lorraine Minatoishi

Date Photographed: April 2016

Description of Photograph: View looking east down Main Street with house at left of photo



Figure 2 of 10:

Name of Property: Crozier Residence

City or Vicinity: Wailuku

Photographer: Lorraine Minatoishi

Date Photographed: April 2016

Description of Photograph: View looking west down Main Street with house to right of photo



Figure 3 of 10:

Name of Property: Crozier Residence

City or Vicinity: Wailuku

Photographer: Lorraine Minatoishi

Date Photographed: April 2016

Description of Photograph: Street view of property with large Cyprus tree at entry



Figure 4 of 10:

Name of Property: Crozier Residence

City or Vicinity: Wailuku

Photographer: Lorraine Minatoishi

Date Photographed: April 2016

Description of Photograph: Gabled roof enclosed front porch with entry steps and door; entry porch enclosed in 1959



Figure 5 of 10:

Name of Property: Crozier Residence
City or Vicinity: Wailuku
Photographer: Lorraine Minatoishi
Date Photographed: April 2016
Description of Photograph: Oblique side view, view looking northwest



Figure 6 of 10:

Name of Property: Crozier Residence
City or Vicinity: Wailuku
Photographer: Lorraine Minatoishi
Date Photographed: April 2016
Description of Photograph: Rear oblique, view looking southeast



Figure 7 of 10:

Name of Property: Crozier Residence
City or Vicinity: Wailuku
Photographer: Lorraine Minatoishi
Date Photographed: April 2016
Description of Photograph: Rear oblique, view looking southwest



Figure 8 of 10:

Name of Property: Crozier Residence
City or Vicinity: Wailuku
Photographer: Lorraine Minatoishi
Date Photographed: April 2016
Description of Photograph: West side yard, laundry pole in foreground



Figure 9 of 10:

Name of Property: Crozier Residence
City or Vicinity: Wailuku
Photographer: Lorraine Minatoishi
Date Photographed: April 2016
Description of Photograph: Under eave detail



Figure 10 of 10:

Name of Property: Crozier Residence
City or Vicinity: Wailuku
Photographer: Lorraine Minatoishi
Date Photographed: April 2016
Description of Photograph: View of post and pier foundation



Photographs, Interior:

Photo #	Name	Description
1 of 10	Property Interior	View from living room, looking towards dining room
2 of 10	Property Interior	Living room, looking towards front door
3 of 10	Property Interior	Kitchen, looking towards dining area
4 of 10	Property Interior	Laundry room, view facing north east
5 of 10	Property Interior	Master Bedroom, view towards study
6 of 10	Property Interior	Porch interior elevation
7 of 10	Property Interior	Built-in buffet at dining room
8 of 10	Property Interior	Built-in ironing board
9 of 10	Property Interior	Concrete laundry tray
10 of 10	Property Interior	Upper ventilation grill detail

Photo Key:
First Floor Interior Photos

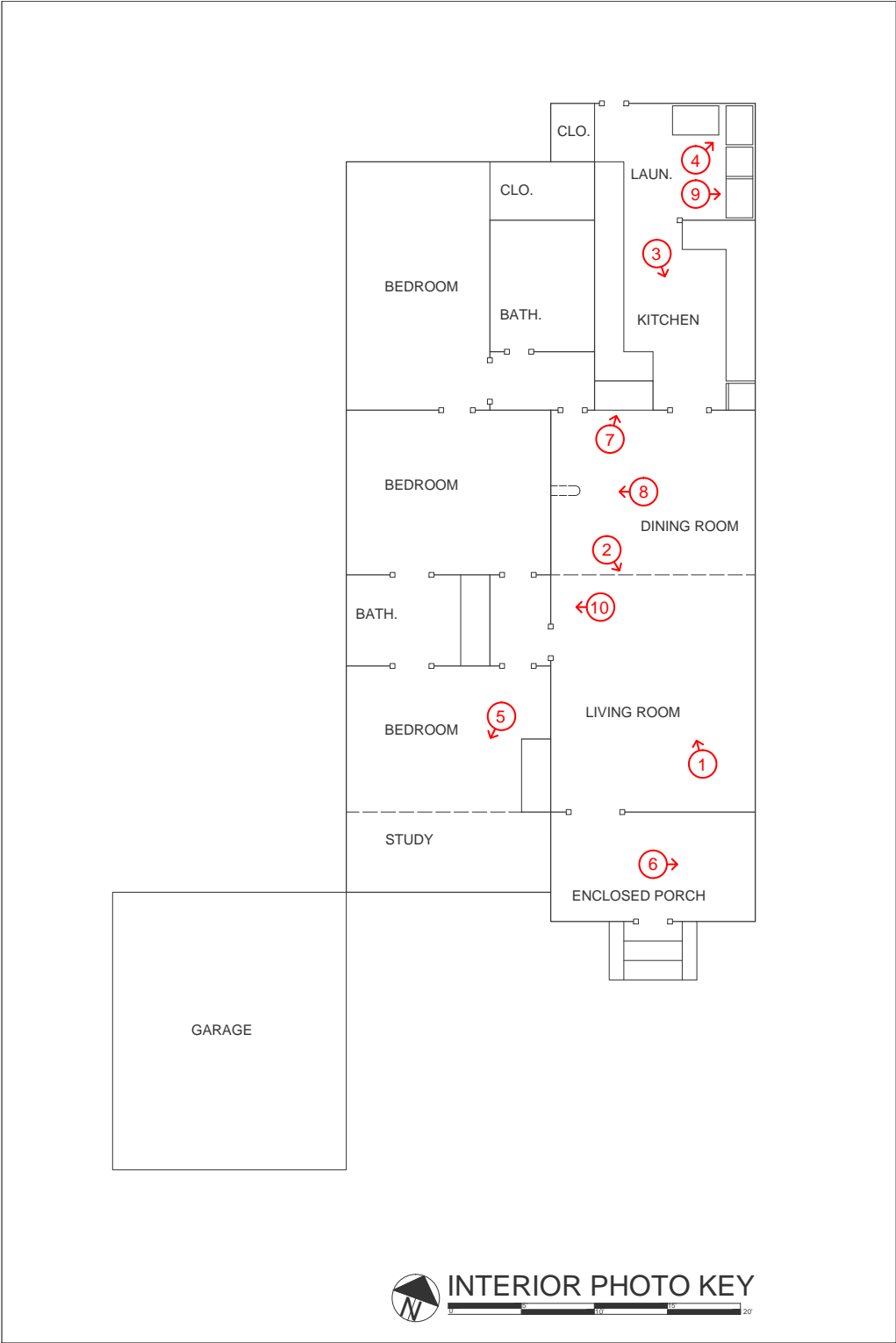


Figure 1 of 10:

Name of Property: Crozier Residence
City or Vicinity: Wailuku
Photographer: Lorraine Minatoishi
Date Photographed: April 2016
Description of Photograph: View from living room, looking towards dining room



Figure 2 of 10:

Name of Property: Crozier Residence
City or Vicinity: Wailuku
Photographer: Lorraine Minatoishi
Date Photographed: April 2016
Description of Photograph: Living room, looking forwards front door



Figure 3 of 10:

Name of Property: Crozier Residence

City or Vicinity: Wailuku

Photographer: Lorraine Minatoishi

Date Photographed: April 2016

Description of Photograph: Kitchen, looking towards dining area



Figure 4 of 10:

Name of Property: Crozier Residence
City or Vicinity: Wailuku
Photographer: Lorraine Minatoishi
Date Photographed: April 2016
Description of Photograph: Laundry room, view facing north east



Figure 5 of 10:

Name of Property: Crozier Residence
City or Vicinity: Wailuku
Photographer: Lorraine Minatoishi
Date Photographed: April 2016
Description of Photograph: Master Bedroom, view towards study



Figure 6 of 10:

Name of Property: Crozier Residence
City or Vicinity: Wailuku
Photographer: Lorraine Minatoishi
Date Photographed: April 2016
Description of Photograph: Porch interior elevation



Figure 7 of 10:

Name of Property: Crozier Residence
City or Vicinity: Wailuku
Photographer: Lorraine Minatoishi
Date Photographed: April 2016
Description of Photograph: Built-in buffet at dining area



Figure 8 of 10:

Name of Property: Crozier Residence
City or Vicinity: Wailuku
Photographer: Lorraine Minatoishi
Date Photographed: April 2016
Description of Photograph: Built-in ironing board



Figure 9 of 10:

Name of Property: Crozier Residence

City or Vicinity: Wailuku

Photographer: Lorraine Minatoishi

Date Photographed: April 2016

Description of Photograph: Concrete laundry tray



Figure 10 of 10:

Name of Property: Crozier Residence
City or Vicinity: Wailuku
Photographer: Lorraine Minatoishi
Date Photographed: April 2016
Description of Photograph: Upper ventilation grill detail

