



Hawaii Early Childhood Facility Study

Completed by MGT Consulting
Group



Executive
Office on
Early
Learning
STATE OF HAWAII



HAWAII PRESCHOOL
DEVELOPMENT GRANT BIRTH
TO FIVE PROGRAM
RESEARCH CORPORATION OF THE
UNIVERSITY OF HAWAII

Final Report

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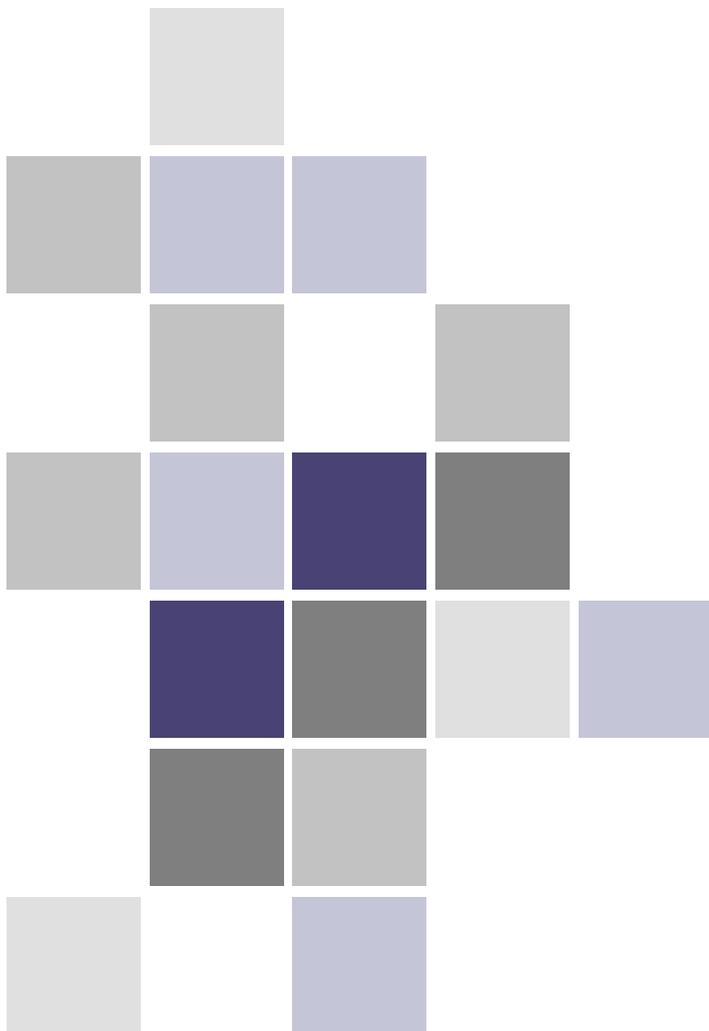


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EXECUTIVE SUMMARY

MGT was retained by the Research Corporation of the University of Hawaii to provide an early childhood facilities evaluation and cost analysis needs assessment to support the Executive Office on Early Learning (EOEL) in the Every Student Succeeds Act (ESSA) Preschool Development Grant Birth Through Five (PDG B-5 Grant). This grant is funded through the U.S. Department of Human Services (HHS) Administration for Children and Families (ACF) Office, to the Hawaii Department of Human Services (DHS) Benefit, Employment and Support Services Division (BESSD). The purpose of this federal grant is to allow awarded states, such as Hawaii, to conduct a comprehensive statewide birth through age five needs assessment and in-depth strategic planning; engage families in the improvement of the early childhood care and education system and enhancement of parent choice; and expand the current mixed delivery system consisting of a wide range of provider types and settings.

The State of Hawaii has long standing, well documented shortages in early childhood care and education. The access to care for infants and toddlers under the age of three is especially challenging. Existing organizations have documented the critical shortage of available childcare, the shortage of teachers and other childcare staff, the struggle for families to afford quality childcare, and the struggle that providers have in finding the balance between high quality care with competitive employee salaries and affordability. This study seeks to identify the costs related to starting a childcare facility and maintaining a facility, including start up, renovation, staff, and training costs.

To better understand the State childcare profile, the current inventory and general market conditions were explored to understand childcare types, childcare regulations, shortage of space, facility staffing, vacancy rate trends, and Title I elementary schools without pre-k classrooms.

To ensure a full understanding of the facilities across the state, a wide variety of key stakeholders were engaged through a variety of methods. Stakeholders in this project include DHS, DOE, care providers, development professionals and state and local government officials. Representatives from each constituency were consulted through a variety of phone calls, site visits, one-on-one interviews, and focus groups. Stakeholder engagement worked to accomplish:

- ◆ A reality check on the need for additional programming
- ◆ Factors parents consider when evaluating early childhood care and education options
- ◆ The development of general level of understanding of desired program elements and amenities, potential locations, program types, program size, and cost sensitivities

After understanding the considerations from key stakeholders, a cost analysis was conducted to outline and estimate the costs associated with childcare in Hawaii. Considerations that must be put into place to develop the infrastructure for childcare include current conditions, considerations to accommodate childcare, ability to accommodate pre-K programs, site planning dollars, and building planning dollars. The information in this report is not a definitive number or estimate but should be used to support the planning of a childcare facility. The amounts represented in this report will allow for a care provider to

financially plan for a facility. In order to obtain a project estimate, actual site, construction type, size, location, professional development services, staffing etc. would be required.

The physical characteristics necessary in childcare environments will vary to best support the needs of the occupants, as well as align with the environment which they may occupy. Best practice is to ensure that safety and wellbeing are the number one priority. Invest into quality equipment that does not hinder annual operational costs. The environments are to support a nurturing environment by encouraging natural light, age appropriate colors and equipment that supports the health and wellbeing of young children.

Expanding childcare in Hawaii involves two significant factors that cause a financial impact to the operational and overhead cost which are both related to age of the child. As a national average, the cost of living, real estate, and equipment are the highest in the country. Considering the staffing and facility requirements within this financial environment, affordable childcare in the state of Hawaii is challenging. Younger children require a smaller ratio of adults to children, therefore increasing the operational costs with staffing can increase the capital or infrastructure cost. The second is that caring for older children increases the capital cost or infrastructure because more space, indoor and outdoor, is required for older children. Even with greater space needs, it is more appealing because fewer staff are required. Factoring in operational and capital costs for a childcare facility does increase the cost significantly which extends to families. When considering the cost of childcare for a family, there is a significant variance between family income and childcare expense.

INTRODUCTION

MGT was retained by the Research Corporation of the University of Hawaii to provide an early childhood facilities evaluation and cost analysis needs assessment to support the Executive Office on Early Learning (EOEL) in the Every Student Succeeds Act (ESSA) Preschool Development Grant Birth Through Five (PDG B-5 Grant). This grant is funded through the U.S. Department of Human Services (HHS) Administration for Children and Families (ACF) Office, to the Hawaii Department of Human Services (DHS) Benefit, Employment and Support Services Division (BESSD). The purpose of this federal grant is to allow awarded states, such as Hawaii, to conduct a comprehensive statewide birth through age five needs assessment and in-depth strategic planning; engage families in the improvement of the early childhood care and education system and enhancement of parent choice; and expand the current mixed delivery system consisting of a wide range of provider types and settings.

OVERVIEW

The State of Hawaii has long standing, well documented shortages in early childhood care and education. The access to care for infants and toddlers under the age of three is especially challenging. The 2017 Hawaii Early Learning Needs Assessment (2017 ELNA)¹ serves as a primary source to understand the challenges that exist across the state. Other organizations, including PATCH², Early Childhood Action Strategy³, and Childcare Aware of America⁴ have reports that support the critical needs of early childhood care and education across the state.

According to the 2017 ELNA, early childhood care and education facilities face challenges, which can threaten the enrollment goals of the early childhood care and education program and therefore the financial viability. For facilities to be successful, the State must understand the current inventory and potential gaps. Existing studies have documented the critical shortage of available childcare, the shortage of teachers and other childcare staff, the struggle for families to afford quality childcare, and the struggle that providers have in finding the balance between high quality care with competitive employee salaries and affordability. The existing needs assessments do not adequately address the specific needs of facilities, including understanding the challenges and costs of new construction, renovation, and start-up costs. This study seeks to identify the costs related to starting a childcare facility and maintaining a facility, including start up, renovation, staff, and training costs.

¹ DeBaryshe, B.D., Bird, O., Stern, I., & Zysman, D. (2017). *Hawai'i early learning needs assessment*. Honolulu: University of Hawai'i Center on the Family. Retrieved from. http://uhfamily.hawaii.edu/publications/brochures/e8998_HawaiiEarlyLearningAssessment-Web.pdf

² PATCH. (2019). *2018 Annual Report*. Retrieved from. <https://sway.office.com/cVTQkRWuhA8jSKZg?ref=Link>

³ Storyline Consulting. (September 2012). *Collaborative Leaders Network Hawaii Early Childhood Listening Tour Report on Preliminary Findings September 2012*. Retrieved from. <https://hawaiiactionstrategy.org/reports>

⁴ Childcare Aware of America. (2017). *Mapping the Gap in Hawaii*. Retrieved from. <https://ccaoa.maps.arcgis.com/apps/MapSeries/index.html?appid=bd183b96f16f4f2e82a99e6ba67e2715>

SOCIAL AND REGULATORY ENVIRONMENT

Children attend early childhood care and education programs in a variety of locations with a wide-spread delivery method. Children can learn in public center-based, private center-based, home-based family childcare, family-child interaction learning, and home visiting program environments. A further description of each type is provided below.

CHILDCARE TYPES

- ◆ **Center-Based programs** including licensed infant-toddler (IT) centers serving children under age 3, group childcare (CC) centers serving 2- to 5-year-olds, and EOEL-DOE public preschool.
- ◆ **Family childcare homes (FCC)** serving up to six children in the provider's own home.
- ◆ **Family-Child Interaction Learning programs (FCIL)** attended by children together with an adult family member, offering a dual focus on child development and family strengthening.
- ◆ **Home Visiting Programs** offer a parenting curriculum to promote safe and nurturing parenting and healthy child development for parents and resource Caregivers with children ages birth to 3 years old and families who have struggled to keep their children safe from harm.

The individual needs, concerns, and obstacles between childcare types are important to understand. According to the 2017 ELNA, center directors report concerns about competition, meeting families' needs, workforce issues, business issues, and subsidy and/or licensing procedures. While family childcare home providers report that serving children, families, and communities; autonomy of being a small business owner; struggling with business management; caring for children without relief; family and child issues; and regulations are the primary concerns. Family-Child Interaction Learning program directors believe they are filling a unique niche but are concerned about financial viability and EOEL expansion.

CHILDCARE REGULATIONS

Hawaii has 4 types of childcare administrative rules under Title 17 Department of Human Services that are important to understand⁵. Each childcare type must follow the corresponding regulations from the Department of Human Services. These regulations provide necessary instruction on the appropriate amount of space, staffing, and equipment per the number of children that the facility is permitted to have for each type of facility.

1. **Registration of Family Childcare Homes** – Chapter 891.1

⁵ State of Hawaii Department of Human Services. (2020). *Admin Rules for Programs*. Retrieved from. <http://humanservices.hawaii.gov/copy-of-admin-rules-for-programs-3/>

- A private residence, including a home, apartment, unit, or townhouse where three to no more than six children who are unrelated to the caregiver by blood, marriage, or adoption, at any given time.
2. **Licensing of Group Childcare Centers and Group Childcare Homes** – Chapter 892.1
 - A facility other than a private home, maintained by an individual, organization, or agency for the purpose of providing childcare to children that are twenty-four months and older.
 - A facility which may be an extended or modified private home, at which care is provided for seven to twelve children, during any part of a twenty-four-hour day.
 3. **Licensing of Infant and Toddler Childcare Centers** – Chapter 895
 - A facility other than a private home, maintained by an individual, organization, or agency for the purpose of providing childcare to children that are six weeks to thirty-six months old.
 4. **Licensing of Before and After School Childcare Facilities** – Chapter 896
 - A facility other than a private home, maintained by an individual, organization, or agency for the purpose of providing childcare before the opening of the regular school day and/or after the close of the regular school day during the academic year for children four years and eight months and older who are enrolled in public or private elementary schools.
 - Before and After School Childcare Facilities are out of the scope of this study and will not be discussed in additional sections of this report.

EARLY CHILDHOOD STATE PLAN

The efforts to support early childhood care and education are wide-reaching. The desire to increase access and opportunity for early childhood care and education is one of the top agendas at the State level. Through the Early Childhood State Plan 2019-2022, a collaboration between the Executive Office on Early Learning and the Early Learning Board is designed to create an investment in the young children of Hawaii.⁶ The building blocks of the plan are:

- “Child and family health, safety, and wellbeing
- Family partnerships and support
- Foundations for early learning
- A well-prepared, well-supported workforce
- Coordination of the early childhood system (p. 9)”

The Early Childhood State Plan services as a platform to support access to childcare, provider quality, staff training, and increased partnerships with families and related support services.

⁶ Executive Office on Early Learning. (2019). *Hawaii Early Childhood State Plan 2019-2024*. Retrieved from. <https://earlylearning.hawaii.gov/wp-content/uploads/2019/01/Hawaii-Early-Childhood-State-Plan-Comprehensive.pdf>

REVIEW OF PAST STUDIES

GENERAL MARKET CONDITIONS

The general market conditions across the state include a shortage of available spaces for children, cost for childcare, hours of operation at childcare facilities, and travel difficulties. According to the Hawaii Early Learning Needs Assessment the State of Hawaii faces a shortage of early childhood care and education opportunities, particularly with infants and toddlers.⁷ This shortage has met a critical need in highly rural areas. The islands of Kauai, Molokai, and Lanai have no licensed infant-toddler centers. Approximately 64% of the young children in Hawaii need childcare because of working parents but there are currently only enough seats to accommodate approximately 25% of children under six years old.

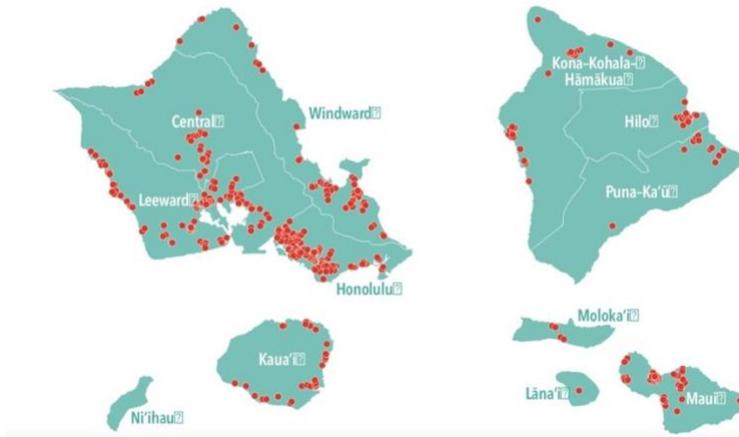
On islands where care is more readily available, many providers have wait lists for children hoping to find a childcare facility to attend. Additionally, childcare providers also indicate that they are not interested in expanding their services to offer programs to additional children because of the lack of facilities and the cost of adding additional operations and struggle with finding a shortage of qualified staff.

It is important to note that the ELNA does exclude some types of Early Childhood Education providers, such as military childcare, Department of Education special education, public charter schools, and unregulated/license-exempt family, friend, and neighbor care. This can lead to underestimating the number of available seats and may exaggerate the severity of the shortage.

Six of Hawaii's islands offer licensed childcare centers and family childcare homes as displayed in Figure 1 and Figure 2, while only three islands offer infant-toddler centers as displayed in Figure 3. The remote locations of many childcare providers make travel time consuming for drop-off and pick-up.

⁷ DeBaryshe, B.D., Bird, O., Stern, I., & Zysman, D. (2017). *Hawai'i early learning needs assessment*. Honolulu: University of Hawai'i Center on the Family. Retrieved from. http://uhfamily.hawaii.edu/publications/brochures/e8998_HawaiiEarlyLearningAssessment-Web.pdf

FIGURE 1. LOCATION OF LICENSED CHILDCARE CENTERS
Locations of Licensed Childcare Centers



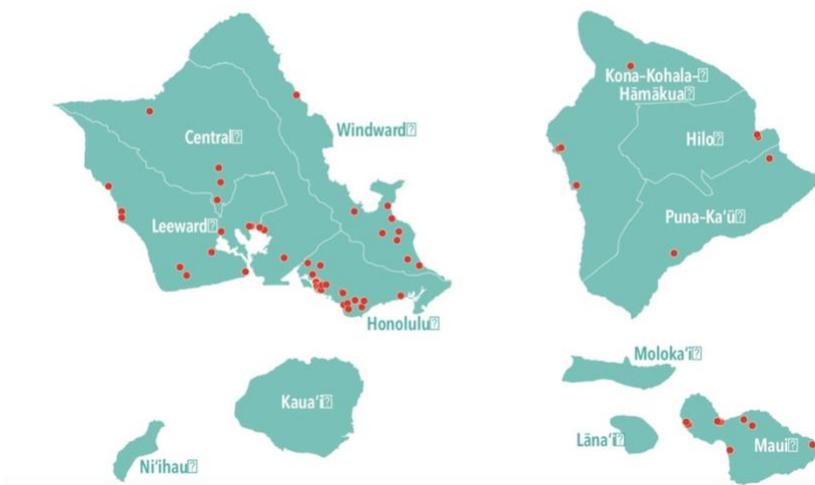
Source: DeBaryshe, B.D., Bird, O., Stern, I., & Zysman, D. (2017). *Hawai'i early learning needs assessment*. Honolulu: University of Hawai'i Center on the Family. Retrieved from. http://uhfamily.hawaii.edu/publications/brochures/e8998_HawaiiEarlyLearningAssessment-Web.pdf

FIGURE 2. REGISTERED FAMILY CHILDCARE HOMES
Locations of Registered Family Childcare Homes



Source: DeBaryshe, B.D., Bird, O., Stern, I., & Zysman, D. (2017). *Hawai'i early learning needs assessment*. Honolulu: University of Hawai'i Center on the Family. Retrieved from. http://uhfamily.hawaii.edu/publications/brochures/e8998_HawaiiEarlyLearningAssessment-Web.pdf

FIGURE 3. LICENSED INFANT-TODDLER CENTERS
Locations of Licensed Infant-Toddler Centers



Source: DeBaryshe, B.D., Bird, O., Stern, I., & Zysman, D. (2017). *Hawai'i early learning needs assessment*. Honolulu: University of Hawai'i Center on the Family. Retrieved from. http://uhfamily.hawaii.edu/publications/brochures/e8998_HawaiiEarlyLearningAssessment-Web.pdf

FACILITY STAFFING

Centers and FCILs across the state rely on trained teachers, assistant teachers, aides, and other staff to support their daily childcare functions⁸. Centers hire the largest number of employees, with 2,722 staff, while FCILs have 246 employees across the state. The breakdown of staff positions for centers and FCIL programs are in **Table 1**. About 70% of staffing positions were stable and filled by the same person for the duration of the school year. The aide position experiences the most turnover. When it is necessary to fill positions, program directors reported that approximately half were satisfied with applicant qualifications, however, it was much more difficult to successfully hire applicants. In half of FCIL and 58% of centers, directors reported that applicants turned down job offers based on benefits and wages.

TABLE 1. STAFF POSITIONS FOR CENTERS AND FCIL PROGRAMS BY POSITION

Position	Centers		FCIL	
	No.	%	No.	%
Lead Teacher	1,068	39.2	57	23.2
Assistant Teacher	684	25.1	94	38.2
Aide	688	25.3	0	0.0
Other	282	10.4	95	38.6
Total Staff	2,722	100.0	246	100.0

Source: DeBaryshe, B.D., Bird, O., Stern, I., & Zysman, D. (2017). *Hawai'i early learning needs assessment*. Honolulu: University of Hawai'i Center on the Family. Retrieved from. http://uhfamily.hawaii.edu/publications/brochures/e8998_HawaiiEarlyLearningAssessment-Web.pdf

⁸ DeBaryshe, B.D., Bird, O., Stern, I., & Zysman, D. (2017). *Hawai'i early learning needs assessment*. Honolulu: University of Hawai'i Center on the Family. Retrieved from. http://uhfamily.hawaii.edu/publications/brochures/e8998_HawaiiEarlyLearningAssessment-Web.pdf

FACILITY VACANCY RATES

The existing shortage of childcare facilities also means that many families struggle to find programs with suitable vacancies. According to the 2016 state licensing database, 52% of centers and 59% of FCC providers reported that they had no current vacancies (p. 12)⁹. In the 2017 ENLA survey, 92% of center directors, 74% of FCC providers, and 33% of FCIL directors indicated that they turned families away or placed children on a waitlist during the current school year. In some cases, children placed on a waitlist were placed in a program, but this uncertainty forces families to place their children on waitlists at several programs to increase the chances of finding a placement.

As noted in the 2012 Collaborative Leaders Network Hawaii Early Childhood Listening Tour¹⁰:

A Waianae grandmother feels “there really aren’t programs out there,” and adds, “the good ones are all full. There are long wait lists.” Parents talked about their experience with other parents keeping program information “secret” because of competition for limited openings. There is a perception that resources can be hush-hush among the parents, because there’s limited space. [T]here’s no way newcomers and others can get involved in program. They need more funding so they can have more participants (p. 17).

Families often travel a long distance for childcare. As reported in the Hawaii Early Childhood Listening Tour, “one mother, on a wait list for several years for a family-child interaction program with one agency, signed up for a second program where she was number 50 on the waitlist. When she was informed of an opening at a site 25 miles from her home, she jumped at the chance, and now commutes 100 miles per week for the program (p. 17).”

TITLE I ELEMENTARY SCHOOLS WITHOUT PRE-K CLASSROOMS

In order to address the economic disadvantage that exists in some school districts across the county, schools can be designated as Title 1 schools. According to Hawaii State Department of Education, “Title I is the federal education program that provides financial assistance to local educational agencies (LEAs) and schools with high numbers or high percentages of children from low-income families to help ensure that all children meet challenging state academic standards. The Department’s list of Title I schools is reported as schools that have a minimum poverty threshold of 47.2%. Poverty is determined via family enrollment in two federal programs – Community Eligibility Provision and the Free & Reduced Lunch Program – during the prior school year.¹¹” In the 2019-2020 school year, in Hawaii alone, 47.39% of the Department of Education students are considered economically challenged, with 84,993 students qualifying for free and reduced lunch and 3,604 students reporting homelessness.

⁹ DeBaryshe, B.D., Bird, O., Stern, I., & Zysman, D. (2017). *Hawai’i early learning needs assessment*. Honolulu: University of Hawai’i Center on the Family. Retrieved from. http://uhfamily.hawaii.edu/publications/brochures/e8998_HawaiiEarlyLearningAssessment-Web.pdf

¹⁰ Storyline Consulting. (September 2012). *Collaborative Leaders Network Hawaii Early Childhood Listening Tour Report on Preliminary Findings September 2012*. Retrieved from. <https://hawaiiactionstrategy.org/reports>

¹¹ Hawaii State Department of Education. (2020). *Media Kit*. Retrieved from. <http://www.hawaiipublicschools.org/ConnectWithUs/MediaRoom/MediaKit/Pages/home.aspx>

According to the National Center for Education Statistics¹² and the Hawaii State Department of Education¹³, Hawaii has 138 Title 1 elementary schools. Of those schools, 24 currently offer a preschool. Based on site visits and interviews with elementary school principals there is a highly expressed interest in expanding offerings to accommodate preschool programs. In contradiction, it is a common characteristic that many of the schools are at capacity and do not have space to accommodate a preschool program.

¹² National Center for Education Statistics. (2020). Retrieved from. <https://nces.ed.gov/ccd/schoolsearch/>

¹³ Hawaii State Department of Education. (2020). *Pre-kindergarten*. Retrieved from. <http://www.hawaiipublicschools.org/ParentsAndStudents/GradeLevelOverview/EarlyLearning/Pages/home.aspx>

STAKEHOLDER ENGAGEMENT

Stakeholder engagement opportunities provide a reality check on what is needed, wanted, and valued in early childhood care and education programs. Through these engagements, participants discussed their opinions on academic, social, safety, and physical needs.

Stakeholders in this project include DHS, DOE, care providers from public and private center-based programs, licensed home-based programs, FCIL programs, and state and local government officials. Representatives from each constituency were consulted through a variety of phone calls, site visits, one-on-one interviews, and focus groups.

METHODOLOGY

Between November 2019 and January 2020, 25 interviews and 12 focus groups were conducted, representing childcare providers, state agencies, local contractors and construction experts. It should be noted that the community of care providers were very open to communication and sharing of their different facilities.

Prior to conducting the interviews and visits to the providers, the Department of Human Services regulations were reviewed so as to understand criteria which supports a stimulating and safe care environment. Review of the facilities were conducted through different lenses, including that of an architect and professional educator to ensure that not only was an environment safe but also an enriching academic environment. The initial sites and interviews were identified to represent a diverse set of stakeholders and learning environments and were based on the scheduling availability of the project. The assessors worked to identify common themes from the different stakeholders as it relates to their concerns of the future childcare industry.

The MGT team utilized a four-step methodology to complete this study including a secondary research environmental scan, on-site interviews and focus groups, phone interviews, and a web survey. The timeline and details of the methodology are described below.

Stakeholders were asked a variety of questions that were specific to their individual relationship to the early childhood care and education facility. Providers asked questions about specific site operations and day-to-day facilities management. DOE and DHS representatives were asked questions about applicable licensing, permitting, policies, procedures, and demand. Government officials and employers were asked questions about childcare support for staff members with young children, the impact of childcare on the workforce, and opportunities for employer childcare support.

A survey containing 16 questions was developed using the Qualtrics software by the MGT Team in consultation with the EOEL Team. The EOEL team invited survey participants via email by asking partner agencies/organizations PATCH, Childcare Business Coalition, Kia I Kaike, State Public Charter School Commission, EOEL Public Prekindergarten Program, Learning to Grow, and Family Child Interaction

Program to forward the invitation to their constituents who are in authority to make decisions about staffing, budgeting, and expansion. It is difficult to estimate how many people received the invitation because the anonymous survey was potentially sent to agencies/providers more than one time. Many childcare providers hold individual affiliations to overlapping organizations. For example, all licensed providers should have received an invitation via PATCH, and they might have also received one from the Childcare Business Coalition, Kia I Kaike, charter schools, and/or Learning to Grow.

To best understand the actual costs of startup and operations, 16 childcare providers were invited to participate in a facility-specific interview on January 22, 2020. Interview questions were provided in the invitation to allow providers the chance to prepare information prior to the interview. If providers were not available for an interview, they were invited to respond to the list of questions in writing. Two childcare providers have responded to the request with helpful information. The providers who were invited represented a variety of childcare facility types. This specific stakeholder data is discussed in more detail in the Cost Analysis section of this report.

Each stakeholder engagement worked to accomplish:

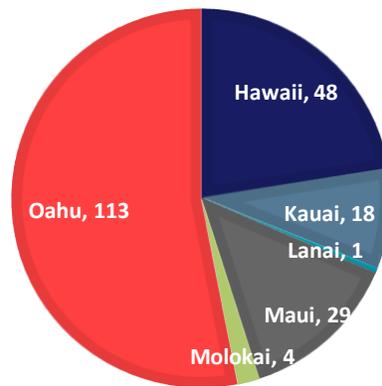
- ◆ Provided a reality check on the need for additional programming
- ◆ Identified factors parents consider when evaluating early childhood care and education learning options
- ◆ Developed a general level of understanding of desired program elements and amenities, potential locations, program types, program size, and cost sensitivities

CHILDCARE PROVIDERS SURVEY

The 17-question Qualtrics survey received 272 responses. After removing surveys that were started, but not completed, 233 responses were recorded. Of those 233 responses, 27 respondents did not have the authority to make decisions about staffing, budgeting, and expansion for their early childhood care and education program and were taken directly to the end of the survey. As a result, 206 respondents completed the survey.

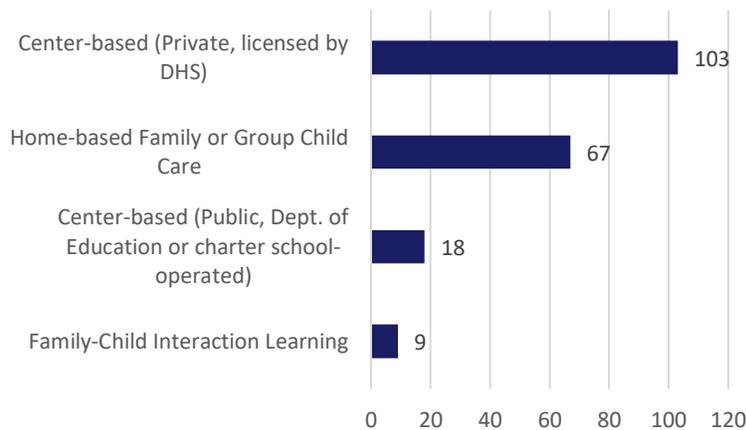
Survey respondents reported having programs located on the islands of Hawaii, Kauai, Lanai, Maui, Molokai, and Oahu, as shown in Figure 4. Over half of programs are located on Oahu while only one program is located on Lanai.

FIGURE 4. CHILDCARE PROGRAM LOCATION



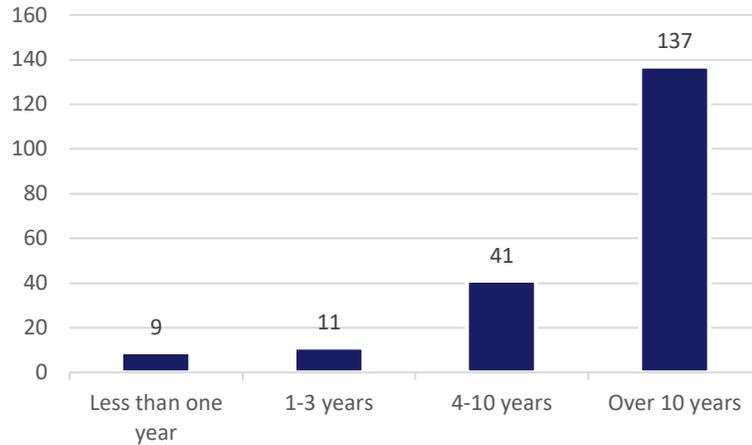
Each of the four care-types were represented in the survey, as displayed in Figure 5. Center-based (Private, licensed by DHS) were the largest group represented with 103 responses, and Family-Child Interaction Learning groups were the smallest group represented with 9 responses.

FIGURE 5. FACILITY TYPE



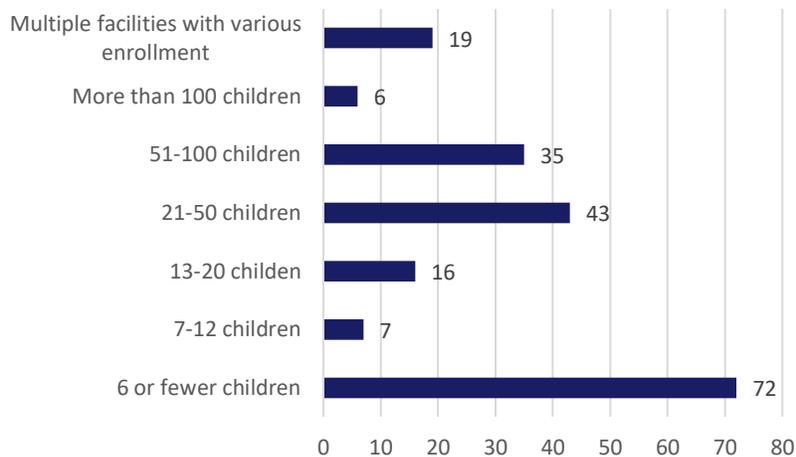
Over 69 percent of respondents reported that their facility has been open for more than 10 years. As displayed in Figure 6, almost 90% of respondents indicated that their facility has been open a minimum of four years.

FIGURE 6. LENGTH OF TIME FACILITY IS OPEN



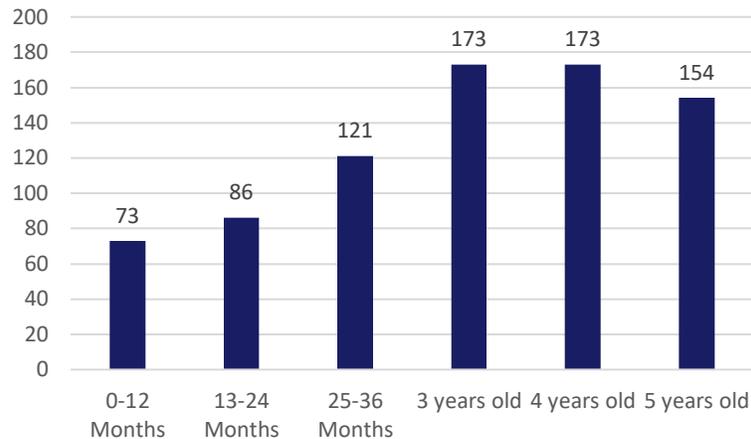
Respondents reported a wide range of the number of children that they serve at their facility in an average day, as shown in Figure 7. Facility size can range from 2 children to over 100 children. Of the 19 respondents who indicated that they have multiple facilities with various enrollment, they represent 140 facilities that serve approximately 5,824 children.

FIGURE 7. NUMBER OF CHILDREN SERVED PER DAY PER FACILITY



Facilities serve children from birth to age five, with 64 percent of responses serving 3, 4, and 5-year olds, as displayed in Figure 8.

FIGURE 8. AGES SERVED BY FACILITY

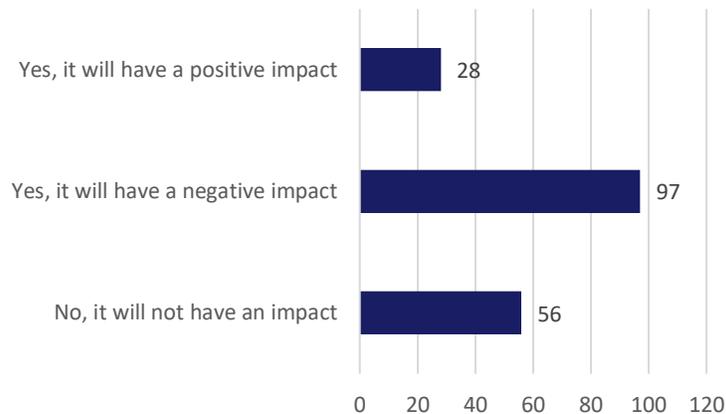


If public preschool continues to expand, most respondents believe that the expansion will have some type of impact on their facility. Over half of all respondents reported that their facility will have a negative impact with the expansion of public preschool, as displayed in Figure 9. The survey asked those who foresee a positive impact from expansion of public preschools to explain in more detail what those positive impacts would be. There were several themes among these responses:

- **Kindergarten preparedness:** Children would be more prepared for kindergarten
- **Lack of currently available programs:** Currently, there is a lack of availability of preschool programs. Expanding public programs would increase availability and allow access to more children
- **Provide more access:** Public availability would provide greater opportunity for those who are unable to afford childcare services

The survey also asked respondents who foresee a negative impact from expansion of public schools to explain in more detail what those negative impacts would be. Overwhelmingly, respondents indicated that they would lose enrollment because families would select the free preschool option for their children. Some respondents indicated that they would need to shift care to younger children and would experience higher costs because of the shift.

FIGURE 9. POTENTIAL IMPACT ON FACILITIES IF PUBLIC PRESCHOOL EXPANDS



The survey also asked respondents the question “In what way could early care and education become more effective in supporting the children and families of Hawaii?” Most survey takers responded to this question and the results are quite clear. Respondents believe that early childhood care and education would be more effective if the following elements were accommodated.

- **Financial assistance for families:** Many families struggle to afford child care, especially infant and toddler care. Providing an increased provision of financial assistance for families would support the children and families.
- **Education for families:** Greater education is needed for families on the financial and non-financial resources available to them, as well as how families can internally help their children prepare for kindergarten.
- **Additional childcare centers/schools:** The state of Hawaii has a well-documented shortage of child care. Increasing state support for additional child care centers and schools would increase availability and reduce waiting lists for families.
- **Support for teachers:** Increases in pay, training support, scholarships and professional development could encourage teachers to get qualifications that would in turn help retention.
- **Access to information for providers:** Providers indicated that increased access to information and knowledge of all regulatory and education standards changes would help them stay consistent and effective.

The survey also asked the question “What is the main barrier to operating a successful early childhood care and education facility?” and “What is the largest barrier to meeting the early childhood care and education needs in your local area?” There were several outstanding, similar themes to these questions including:

- **Cost:** Many, if not most respondents believe that the cost of childcare is prohibitive on several levels. The cost of startup and operation is high as it includes facilities and qualified staff. These costs trickle down to families, where the costs are often too high for the average family to afford.

- **Regulations on starting and operating a childcare facility:** This includes regulations on allowable number of children per teacher, and allowable children in a given-size space. Also, some found insurance requirements to be a significant barrier.
- **Finding and retaining qualified staff:** Many respondents indicated that it is difficult to find qualified staff due to the high standards for becoming qualified, and the costs and time constraints of the education needed. Many also find it difficult to retain these staff due to low pay availability and the availability of more lucrative educational jobs in closely related areas, such as kindergarten or elementary teaching.
- **Availability of resources:** Many providers find that availability of resources regarding up-to-date regulatory requirements and educational standards is a challenge.
- **Availability of adequate facilities:** Many providers also stated that availability of adequate facilities is challenging due to the unique nature of the facilities needed, as well as the very high cost of real estate in Hawaii.

Survey respondents were asked, “What is the top strength of the current early care and education delivery system?” The following themes emerged from the responses:

- **Caring providers:** Staff genuinely care about the children in their care
- **Educated staff:** Teachers and staff receive a significant amount of training
- **Choice:** Families can select care options that best meet their needs
- **State support:** The state provides support through various programs and services

Almost all respondents (92.8%) think that there might be opportunities to work collaboratively to address the shortage of early childhood care and education facilities across the State. Respondents believe they could collaboratively address shortages in their own program in the following ways:

- **Increase public-private partnerships:** Allow state funds to be used to support private programs including increasing pay, creative use of existing facilities, and increased staff.
- **Increase space requirements in home-care facilities:** Increase the number of available childcare spaces from 6 to 8 children.
- **Partner with DHS to advertise open spaces:** Some private facilities have open spaces but do not have funds to adequately advertise.
- **Partner with neighboring preschools:** Create directors’ meetings and other pathways for collaboration for between neighboring preschools.

Some respondents indicated that they have previously attempted collaborations. Most respondents indicated that collaborations were difficult. Many indicated that they attempted to collaborate with State agencies or universities but did not receive return phone calls, staffing strains slow down progress, or limited resources prevented them from successful collaborations. Other respondents indicated that they have successfully collaborated with other programs and services through referral programs, teacher training, and working with parents.

At the conclusion of the survey, respondents were able to leave any additional comments. Overall, respondents were thankful to be asked to participate in the survey and are hopeful for more support in their facilities.

FINDINGS & THEMES

The following are major themes derived from our interviews, focus groups, and web-based survey. Amongst the groups in which discussions occurred, were childcare providers that represented large private organizations to smaller home-care businesses. The MGT Team also spoke with agencies that provided direct or indirect support to the childcare business, including, the Department of Education Facilities Department and the Department of Human Services. The Department of Education Facilities Department is responsible for maintaining all of the facilities in the Department's portfolio. The Department of Human Services is the agency that is responsible for providing licensing to childcare organizations. Professionals that provide service to the built environment including those that provide permitting and private organizations that construct those renovations. The following statements are common themes found within the diverse groups.

- **Access to childcare:** There is a need for equitable and accessible childcare resources to be provided throughout the entire state of Hawaii so that all children can attend.
- **Age-Group Financial Differentiation:** When considering operational costs associated with the different early childhood age groups, preschool age (age 4) is a financially more productive demographic to care for.
- **Provider Deficiencies:** There is a deficiency of educated or trained care providers on the island of Hawaii.
- **Public Pre-K Concerns:** Providers are overwhelmed by the implications of a public PreK system and concerned about how this will affect childcare businesses.
- **Construction Delays:** There are extensive efforts by the community to preserve the natural characteristics of Hawaii. The development of commercial businesses such as childcare are placed under significant discernment causing a perceived delay in development when the timeline for construction should accommodate the appropriate timeline for permits with respect to development on Hawaii.
- **Portable buildings on DOE properties:** Department of Education Facilities Department is currently undergoing a strategic initiative to remove portable buildings on their sites and renovate school buildings. As these renovations are considered it may be imperative to work strategically with the Department of Education in the master planning process to accommodate preschool programs.

COMMON THEMES BY STAKEHOLDER GROUP:

The following themes were identified after interviews, site tours, and survey responses by various stakeholders.

ECE DIRECTORS AND PROVIDERS

Fiscally, there is a delicate balance when providing care to birth-age 3 compared to age 4 because of the child to teacher ratios. This becomes an additional need for trained care providers, of which there is a deficiency.

The private providers have noticed recent changes in the decrease of the wait list or demand of their programs. They have noticed that this coincides with the public Pre-K expansion in their local area. They are concerned that public Pre-K will have a negative impact on the private early childhood care business.

There needs to be incentives and support to help the implementation of quality care environments throughout the entire state. Providers suggest that they need additional financial, community, and family support to continue providing excellent care environments.

There is interest in practical support tools and incentives that help small childcare providers, primarily in a home-based environment, run a business such as administrative applications, affordable furniture/equipment, insurance, building repair, taxes, etc.

AGENCIES

There is a strong interest in providing early childhood care and education spaces that accommodate safe and healthy environments to the greater community of Hawaii. Agencies recognize the value to the investment of early childhood care and education of the greater community and value that it provides for the future community of Hawaii socially and economically. However, there are many areas of Hawaii that have a significant deficiency of early childcare, particularly in rural and very remote areas.

As development is considered, agencies believe health, safety, welfare, and preservation of the Hawaiian natural beauty and environment is a priority. Many agency leaders noted that construction and renovation take a considerable amount of time and resources.

Schools are a natural space to consider for early childhood care and education because they often provide wrap around support services for the local community. In rural communities, there is need for additional family support including health care, personal hygiene, and safe living environments. School principals and local communities are interested in providing opportunities for early childhood care and education to support academic needs of students. In general, the public-school facilities are fatigued and challenged with providing space throughout the entire state of Hawaii. It is a delicate balance to suggest further new classroom development on these sites in order to meet the demand for childcare.

FACILITIES DEVELOPMENT STAKEHOLDERS

Renovations and new construction are expensive and time-consuming because of regulatory requirements and the difficult access to high quality building materials, equipment, and skilled labor. The facilities development stakeholders believe it is important that care providers understand the importance of ensuring that facilities are constructed with health, safety and welfare requirements as a priority. It is also important that care providers understand the value of working with local building professionals as it

relates to local zoning and building regulations. Outside of the general cost for renovation and construction, equipping a classroom is expensive due to resources needing to be shipped from the mainland.

Strengths and Opportunities

There is a strong community in the state of Hawaii that wants to support their families and early childhood care and education. There are many activities that are currently practiced in order to provide service to the community, but these ideas are not necessarily shared throughout all communities. The following ideas are suggestions based on observations during the interview process or developed as a synergy of ideas.

- **Increase provider training opportunities:** A common theme when talking with childcare providers is the challenge of finding or retaining good qualified care professionals. A variety of opportunities should be provided throughout the community to provide necessary training to fill employment opportunities. Specialized training is needed for business owners of centers or homebased businesses, professional development for current care providers, and training for future care providers. Due to travel and work-schedule constraints, training will need to be offered in creative methods that may include web-based, evening, and weekend delivery.
- **Support for rural care providers:** Home-based care providers in rural locations don't necessarily have an extensive network of support to expand care to their community. Opportunities should be expanded to provide individualized professional development for home-based providers to get easier and accessible training to promote the increased licensure of home-based care. Training opportunities could include in-home training models, visits to other home-based care providers, or more support for degree completion.
- **Identification of available facilities:** Create a list of pre-licensed/preregistered facilities to share with potential businesses or those businesses that are considering expansion. Creative spaces to consider would be retail spaces, churches, and public office spaces. A resource such as PATCH could offer this service as a support to grow opportunities for more childcare businesses.
- **Add childcare facilities in or near professional buildings:** Consider creative locations especially in areas that employ a large number of professionals. There are good models throughout the state that have provided quality care environments in office buildings. A good example of this type of collaboration is the use of the Federal Building on Oahu and the proposed childcare facility in Kauai County Building.
- **Childcare in existing school buildings or campus:** There is good precedent in which childcare can be implemented within existing school buildings, using unused classrooms. This situation may be vulnerable for the program because it is dependent on the availability of space by the host school. There appears to be opportunity in various locations on the different islands. Another opportunity may be through the development of a portable building on the campus, but this might be costly which is dependent of the status of the campus's code compliance. If a school campus

decides to continue to develop the property with renovations or new facilities and is not up to date with current codes, additional renovations will be required to ensure up to date code compliance throughout the entire campus. This may cause a seemingly low-cost project to exceed its project cost.

- **Offer incentives for extended hours of care:** There is a need to think creatively about the hours of services provided to the community. Workdays for parents are extending beyond the traditional 8am to 5pm day. Consider providing incentives for flexible hours that align to the hours of operation across different industries.
- **Practical business support for care providers:** There is a request for a stronger, yet practical, support system to smaller care providers that will support increased training of qualified personnel and finding appropriate resources such as handymen, tax professionals, insurance providers, etc.
- **Increase awareness of existing resources:** There is a necessity for active communication to the community of care providers. Often times resources are available, but care providers have a lack of understanding or knowledge of need. The State of Hawaii is ready to support early childhood care and education but the avenues to share those ideas are limited. There is a need for active communication/networking to support care providers.
- **Offer financial incentives to care for infants and toddlers:** Operation costs to care for children under the age of four is less lucrative than care for four-year olds. Consider offering financial incentives directly to the providers for providing childcare for children three years old and younger. This incentive would be in addition to the DHS childcare subsidy payment rates.
- **Strategically locate childcare on major traffic routes:** There are many areas of Hawaii that are difficult to travel to because of the traffic patterns. Strategically providing care locations on major routes to areas of employment can help alleviate costs in high rent districts or time spent traveling to the remote locations of residents.
- **Ensure permit fees are affordable:** Permit fees and costs associated with care environments must be affordable and easy to locate. To increase the number of licensed environments, consider fees that are affordable or incentivized.
- **Create networking opportunities for all stakeholders:** Consider establishing a network larger than the care providers to support one another. Relationships that occur between a developers' group, partnerships with DHS, code officials, Department of Education, PATCH, and providers could create an environment that expands care opportunities across the State.

IMPLICATIONS/IMPACT OF PUBLIC PRE-K EXPANSION

It is the opinion of the providers that it will be important to find the balance between public and private care to minimize the impact on private care providers. Many private care providers see the benefit in offering public preschool. They are also interested in exploring additional options for childcare access, including a constitutional amendment to allow state funds to be used with private providers, to ensure a variety of care options for communities. Many private care providers in this study reported that they are very concerned about how public preschool will impact their businesses.

- **Increased public pre-K is creating vacancies at private providers:** A small number of providers have already noticed the expansion of public preschool having a direct impact on their business. In those specific instances, care providers indicated that they have not had childcare openings in their facilities in many, many years but after a new public preschool opened within close proximity to their business, they did experience very few openings. The fear among these providers is that families will choose to send their child to the public preschool instead of the private preschool due to cost-savings opportunities.
- **Infant and toddler care is not an affordable substitution:** In the cases where care providers may experience openings, it is not desirable to open more spaces for younger children. Many providers reported that infant and toddler care is very expensive to offer and that it would not be possible to offer due to budget or staffing constraints.
- **Public pre-K is creating staffing shortages among private providers:** Private care providers also expressed concerns about staffing shortages related to the expansion of public preschool. They reported that caregivers opt to work in the public-school environment because of higher pay and better benefits. This staffing shift causes private providers to reduce the number of available classrooms that they fill with children. Some providers indicated that they have classrooms physically available for childcare but that they cannot secure staff to teach and care for the children in those rooms.

COST ANALYSIS

CURRENT CONDITIONS

The state of Hawaii has a rich diversity of spaces which childcare is provided, providing many different opportunities to help support the families of Hawaii. From the review of these spaces, there have been many lessons learned by hearing from these different childcare providers. The following are hints and ideas to help support the expansion of services into the Hawaiian community. All of the costs identified throughout this report have applied a location factor associated with the state of Hawaii. Note, this list is not to replace local jurisdiction regulation but to aide as a guide when visiting potential childcare sites. When considering locations for childcare services, be sure to visit the local community's building inspection and zoning departments to understand local permitting needs. Also, consider review by advocates to help with childcare locations such as PATCH or DHS.

CONSIDERATIONS TO ACCOMMODATE CHILDCARE

When considering different types of spaces for childcare be sure to consider that they have built-in infrastructure functions which could decrease investment into the space. Note that this list is not the extensive list but provides key components that can be more costly with initial investment. These functions include:

- **Verify zoning prior to attempting to establish a childcare center:** Check with local community zoning officials to determine if the use might be a permitted use, or if conditional use, that there is precedent in the community of a similar use that is permitted. If not, this permit can take an extensive amount of time to achieve or not at all.
- **Parking lots adjacent to main entry:** Parking lots must be created to accommodate an efficient and safe pick-up or drop-off line for older children.
- **Prioritize first-floor facilities:** First floor access is desirable for early childhood education and care facilities. If first floor space is unavailable, spaces with elevators and minimal height ramps that support easy access can also be considered.
- **Outdoor space must be accessible and meet guidelines:** Outdoor space must be easily accessible from the classroom and secure. The following requirements are ordinances provided by the Department of Human Services.
 - Minimum 150 square feet for children under the age of 12 months
 - Minimum 150 square feet plus 75 square feet per child over the age of 12 months
- **Designated restroom facilities must meet guidelines:**
 - For infant care, a designated space is required for diaper changing. Hand washing and sanitary disposal of diapers must be easily accommodated.
- **Must have kitchen prep space:** Kitchen prep space must be easily accessible during regular hours of operation. If space is not available, consider catered services.

- **Have access to natural light:** Natural light should be available in the classroom space.
- **Establish appropriate napping areas:** If offering infant care, an additional room for napping that is well ventilated and provides natural light should be available.
- **Indoor play areas must meet guidelines:** Indoor play areas must have an adequate amount of space. The following is from the ordinance regulations provided by the Department of Human Services
 - Indoor play area (note that this excludes support spaces such as restrooms or storage) provide 35 square feet per child.
- **Provide space for storage:** Consider that additional space is needed for storage of equipment, storage for student material and communications with parents
- **Select durable and sanitary finishes:** Consider the durability and sanitary components of finishes to promote health, safety, and longevity of facilities

Spaces that traditionally accommodate childcare and related services can be more readily renovated. These spaces tend to have minimal renovation costs when compared to non-traditional spaces and new construction. The type of spaces which childcare can be provided and tend to have a higher potential of readiness are:

- Churches
- Schools
- Community centers
- Higher Education institutions have been found to be good locations for childcare and can accommodate staffing through students that are in an education program
- Residential multifamily homes such as a duplex, note that this accommodates a smaller number of children
- Partnership with other care providers such as adult care centers

The following are spaces visited which represent creative, fresh ways to consider childcare. In these types of spaces, there may be bigger barriers that must be overcome to accommodate care. These barriers can cause an increase in renovation costs. This list is not comprehensive of all spaces which childcare can be considered but helps to support thoughts and creative opportunities when considering childcare locations. Included with this list are common barriers that may occur and should be considered but should not deter the creative consideration.

- **Office buildings:** Common barriers include parking, direct access to play area, security.
- **Retail spaces such as a mall:** Common barriers include providing natural light, outdoor play area.
- **Spaces within businesses that employ many people:** Common barriers are dependent on the space. (See the list above.)
- **Single-Family homes within Single-Family zoned communities:** If considering care for a smaller number of children, a residential property can provide for a nice location. When considering a home-based business, it is essential to check with local zoning codes. There are multiple categories of residential zoning. If child-care is considered as a conditional use this does not necessarily ensure a permit. The conditions to the use can cause additional fees and an extended

amount of time for approval. It is best to check with the community's planning and zoning department early when considering a location.

ABILITY TO ACCOMMODATE EARLY CHILDHOOD CARE AND EDUCATION PROGRAMS

OVERVIEW

There are many things to be put into place to develop the infrastructure for childcare. The following information is to help provide guidance on the consideration of costs. This information should not be taken as a definitive number or estimate but used as planning dollars to help budget for the development of a childcare facility. Once a person would narrow down a location and scope of work it would be best practice to develop a project estimate. Information included in a project estimate would be obtained and include detail on; real estate, building/site construction, permits and professional services.

The physical characteristics will vary to support the needs of the occupants, as well as align with the environment which they may occupy. It is best practice to provide environments in which safety and wellbeing are the number one priority. Long term maintenance should be considered and therefore it is better to consider investment into durable, long-lasting equipment and finishes to avoid unanticipated impact to annual operational costs. It is important to ensure that child care facilities are nurturing with natural light, age appropriate colors, and appropriate equipment and furnishings to create optimal spaces for children.

When considering types of care environments there are some rules of thumb that should be considered which have been learned over the course of this study in relation to the categories of built environments. There are two significant factors that affect financial overhead which are both related to age of the child. The first is that the younger the child, the ratio of adults to children narrow, therefore increasing the operational costs and depending on the number of children can increase the capital or infrastructure cost. Caring for older children increases the capital cost or infrastructure because more space indoor and outdoor is required for older children.

METHODOLOGY

Multiple sources of data were researched to develop the proposed planning construction estimates:

Comparing actual recorded costs in Hawaii (City & County of Honolulu) to Engineering News Record's (ENR) "Construction Cost Index" and "Building Cost Index" and then referring to the 2020 comparison costs published in ENR and Sweet's Square Foot Cost with similar projects in Hawaii, an intimal cost factor was discovered and then crossed referenced with RS Means' "2020 Building Construction Cost Data " in order the find the raw local costs.

Engineering News Record (ENR) is a weekly publication of McGraw Hill Publishing. ENR's "Construction Cost Index" and its "Building Cost Index" have been continuously updated by their Construction Economists for 50 years by tracking local prices in 20 U.S. cities. They represent a consistent set of labor

and material costs as a basis for any research into the same. Cummings Project Management and Consulting provide publication on construction market analysis and insights that explains key economic trends and insights regionally.

LOCATION

Location is a factor which can aid in the success of a business due to its location but can be a challenge due to its costs. Throughout this study there have been many applications which childcare is provided from corporate offices to home-based businesses. Prior to selecting a location, it is imperative to understand local zoning codes and review the considerations as identified above in the section, CONSIDERATIONS TO ACCOMMODATE CHILDCARE. There are considerations such as providing childcare not only in areas of business but also in family residences or on a route commonly used by employees commuting to work. There is precedent of successful childcare facilities on seemingly non desirable locations. However, those facilities were able to capture traffic patterns of families and provides a successful location for a childcare business.

Many scenarios have been observed throughout this study. For the purpose of this section, we are not including churches/community spaces that do not charge a fee for use of existing space or residential property. The church type space is a variable that is difficult to track and is dependent on a mutual agreement. This study explored partnerships as affordable as completely free rent and possibly a utility charge. Residential facilities are not included because these spaces are also used for personal residences which a business occupies a certain percentage, this scenario is really dictated by someone’s current personal assets. Although, if you are beginning a childcare business on a small scale, starting by using your home can be a scalable way to determine if this is an appropriate personal career. It is important in home-based businesses to check with local zoning officials prior to establishing a childcare facility.

The following real estate and lease data is a representation of market prices found on the islands of Hawaii, Maui, Kauai and Oahu. It was found that generally retail space offered a smaller area of 800 to 1,500 square feet while office space was able to accommodate larger spaces of 1,000 to 5,000 square feet¹⁴. It is common practice that these spaces do not include utilities in the lease agreement. In general, the suggested amount to add to the monthly cost is \$8/sq ft to \$15/sq ft per month. As a space is considered, it is best to understand your regional market and consider negotiations to effectively support the business.

TABLE 2. LOCATION COSTS

	Commercial Real Estate per acre		Lease per square foot (retail or office)	
	Min.	Max.	Min.	Max.
Urban	\$7,800,000	\$10,000,000	\$15	\$40
Town/Suburban	\$1,000,000	\$6,800,000	\$22	\$42
Rural	\$115,000	\$320,000	\$18	\$32
Tourism	\$980,000	\$1,680,000	\$36	\$72

¹⁴ LoopNet. (2020). Retrieved from. www.loopnet.com

SITE PLANNING DOLLARS

An outdoor play space is required for all childcare facilities that is easily accessed from the classroom or care environment. The space is also to be secured by fencing or a barrier. The space should be natural or soft in nature, such as a sport court type surface, that is well drained to avoid excessive puddling. The space should be shaded or partially shaded to protect from direct sunlight. Another important amenity is to have hard surfaces for children to ride small bikes or scooters. Equipment is to be provided to accommodate a stimulating and age appropriate environment.

TABLE 3. COMMON SITE FEATURES TO CONSIDER¹⁵

	Commercial		Residential	
	Min.	Max.	Min.	Max.
Fencing	\$12,078	\$60,390	\$665	\$3987
Surface	\$4,458	\$20,301	\$144	\$575
Shade Devices	\$1,200	\$32,000	\$1,200	\$3,000
Play Equipment	\$9,500	\$50,440	\$6,787	\$9,500

BUILDING PLANNING & STARTUP COSTS

Buildings can include a vast range of construction types and are typically only limited based on the project construction budget or imagination. The actual costs are only finalized approximately one year after the occupancy permit is issued to a construction site. Construction of a new building or renovation does not need to be an overwhelming task but does require proper planning. Appendix 2 references four construction types (concrete block, tilt up, brick with wood framing & wood framing with clapboard) detailing out construction specifics which represent common methods that the island uses and offer as a guide for things to consider.

If your organization would consider building new, there are some things to keep in mind with regards to construction types. Concrete is a durable material that if installed properly will serve as a useful long-term material that supports the longevity of your building. The material will help to alleviate initial life-cycle costs because of its high durability, reduced R value and reduced sound transmission. Concrete block is relatively flexible to install and can be installed on site but requires skilled workers and time to ensure proper installation. Tilt up walls are another concrete product that offers similar structural integrity, fire resistance and high durability. Since the walls are constructed offsite and assembled onsite cost increases and designed flexibility is limited. Generally, the most significant benefit of tilt up construction is the quicker install of the product onsite.

Wood framing is a flexible material accommodating on site installation, durable against rust with relatively easy access to materials. Installation or construction of wood can be successful, but it is critical that time

¹⁵ Figures for common site fixtures are derived from using multiple commercial and residential fixture providers through both personal communication and online research.

is taken to ensure that proper construction practices are in place to alleviate stress from termites, vapor penetration and instability. Proper methods of construction ensure the many benefits of the wood framing construction type. Those benefits include, a natural resistance to rust and a high flexibility for design, as the product accommodates more fenestration. After the wood framing is complete, the exterior is the next application which could be brick or clapboard which both can be aesthetically pleasing. Brick is more costly but offers more resistance to the elements and naturally increases R value. If timing is important to your project this product requires additional skilled labor and time for installation. Wood clapboard is a quicker and easier product to install but the R value is less and can be a less durable exterior material.

Renovation costs are identified below as a range which represent construction occurring during renovation. Construction during renovation often costs more per square foot because of unknown site conditions. Renovations can often be accommodated by a smaller budget because a smaller area is impacted during the process. If minor adjustments to a space are modified, such as finishes, this can be a much smaller cost and should not require permitting. Based on MGT's more than 40 years of facility master planning and budgeting, as well as information gained from professional affiliations, as a rule of thumb, if a modification affects the health, safety and welfare of a space, then it is possible that a permit is required. The national average for budgeting finishes for a commercial space is \$200 per square foot. There are examples of parent labor or volunteer hours that are used to help defer costs of construction, but this could impact revenue and is considered as an outlier scenario. This price of \$200 per square foot is an average that would support commercial finishes and installation.

Startup operations costs are not included in construction budgets because of the many different types of uses that may occupy a space. When considering initiation costs for a childcare business, the occupants of the space must be considered. In the case of childcare facilities, infants, toddlers, preschoolers, or a mix of these age groups will utilize the space. Consideration should be provided to the following types of expenses to help develop an actual estimate to the startup costs.

- Furniture that supports care which may include cribs, highchairs, tables/chairs, shelving
- Mats, pillows, bedding
- Kitchen utensils
- Smoke alarms and fire extinguishers
- Housekeeping equipment and supplies
- Office furniture & equipment for administrative duties
- Business phone
- Working capital (8 months)
- Educational supplies including books, curriculum, manipulatives and toys
- Marketing supplies such as a website, flyers and business cards

TABLE 4. CONSTRUCTION & STARTUP COSTS¹⁶

	New per sq ft		Reno per sq ft		Operations Startup	
	Min	Max	Min	Max	Min	Max
Public schools without Pre-K programs ¹⁷	\$816 <small>(incl operation startup)</small>	\$2,040 <small>(incl operation startup)</small>	\$402	\$568	\$400/student	\$500/student
Private early care & education facilities	\$347	\$416	\$382	\$458	\$1,500/student	\$2,500/student
Infant & Toddler Centers	\$347	\$416	\$382	\$458	\$1,500/student	\$2,500/student
Family Childcare homes ¹⁸	\$308	\$520	\$339	\$572	\$12,000	\$60,000

-The above new construction dollar amounts are detailed in Appendix 2 of this report
 -Reno cost is typically around 10% higher than new construction due to demolition and other added costs
 -Soft costs such as furniture and equipment are not included in construction costs
 -Real estate and site costs are not accounted in the above costs

When considering costs, it is best to keep the following factors in mind:

- **Exterior Wall Construction and Building Framing Options:** These are commonly used exterior typical building framing systems observed on the Islands. The model estimated are based on the actual characteristics of the building.
- **Total Square Foot of Floor Area and Base Perimeter:** Square foot of floor area is the total gross area of all floors at grade, and above, and does not include a basement. The perimeter in linear feet used for the base cost is generally for a rectangular, economical building shape. A consistent 1,000 square foot area as well as a 440 linear foot perimeter was used for a consistent comparison.
- **Cost per Square Foot of Floor Area:** The highlighted cost is for a building of the selected exterior wall and framing system and floor area. Costs for buildings with floor areas other than those calculated may be interpolated between the costs shown.
- **Building Perimeter and Story Height Adjustments:** Square-foot costs for a building with a perimeter or floor-to-floor story height significantly different from the model used to calculate the base cost may be adjusted to reflect the actual building geometry. All estimates are shown for a one-story structure.
- **Construction expense list:** Upfront costs can include everything from cubbies to cribs and toys. It is important to list everything that may be required to open a child care facility. Construction is another huge factor in the potential cost of a project. Construction costs can often include demolition, framing,

¹⁶ Operations start-up costs are based on figures provided in the Childcare Provider Questionnaire and Interviews conducted in January 2020.

¹⁷ Hawaii Department of Education. (2020). Personal communication with multiple personnel of facilities.

¹⁸ Self-Help Credit Union. (2020). *Start-up-costs-for-childcare*. Retrieved from. www.Entrepreneur.com/businessideas/day-care-center

rough plumbing, rough electrical, HVAC systems, baseboards, interior doors (check for possible fire rating requirements on doors), programmable buzzer system for security, drywall, duct-work, counter and shelving installation, architectural work, and permits.

- **Construction Inspections:** Upon application to DHS, various departments will come out for inspection. The daycare inspection will include a long line of inspectors. Electrical, plumbing, fire protection, health surveillance, kitchen inspectors, HVAC, etc. Officials will come check out various aspects and once approved, DHS will issue a license.
- **Set up utilities:** A big part of daycare center setup is making sure utilities are in order. This includes internet and a landline phone, electric, gas, water and garbage disposal. Properties generally do not have garbage pickup included so it is the responsibility of the daycare provider to pay a company to haul off the garbage weekly or bi-monthly from a dumpster.
- **Material Costs:** Material costs from 30 major metropolitan areas, plus a few from other significant markets, are gathered to create RSMeans' Material costs. Bare material costs are marked up by 10% for profit but not for overhead or sales tax.
- **Labor Costs:** The Labor rates used by RSMeans are an average of labor rates in 30 different cities across the United States. Direct labor rates include fringe benefits and carry markups for both profit and overhead. The RSMeans City Cost Index for Labor is 1.197 for year 2020.
- **Equipment Costs:** RSMeans gathers equipment rental rates from numerous sources throughout North America. An adjustment factor of 1.084 over the rental rates found in the RSMeans BCCD in 2020.
- **Construction will take a while:** Daycare center construction on the Islands can take a lot of time. Plus, there are always last-minute modifications or issues that come up. It is important to give attention to the project deadlines. Always provide a little leeway in case of unexpected delays.

ANNUAL OPERATIONS COSTS

Determining annual operating costs can be challenging for multiple reasons, which include determining the perfect ratio of staff and children, location arrangement, and access to services. Through this study it was found that there are costs to consider related to the planning process, determining the number of children to watch, or location. Determining number of children and age of children cared for is an essential factor when considering staffing, which impacts operations. Caring for children in increments of 5 seems to help keep a balance with daily costs including staffing, supplies and food. Through the interview process of a long-term care operator with multiple facilities used a rule of 5 when it comes to evaluating optimal operational costs. It was found that the operating cost based on the optimal factor of 5 is between \$5,200 and \$8,650 a year per child. Therefore, if 5 children are watched at the same time, the operating costs could be between \$26,000 to \$43,250 a year. Arrangements to maximize this ratio can have a significant impact on annual operations.

In addition to staffing, supplies, and food, there are many additional operational costs that need to be included in an annual budget. For example, if a budget for utilities are to be considered, a good planning range is \$8/sf to \$15/sf per year. Note that there is precedent that some lease agreements include all utilities or some spaces only charge utility fees. Annual operations costs must include fixed rates that include rent (location fees), utilities, insurance, licensing/accreditation, trash removal, food service,

marketing, accounting, and maintenance. Variables are unique at each care facility and are based on the number of children include staffing, supplies (office, housekeeping, & instructional), and consumables. These variables can have an impact on the total cost of operations.

During an interview with one care provider, monthly costs were \$31,000 for 43 children (\$721/child). Included in those costs are: \$1,000 for rent (but may be raised soon up to as much as \$3,000), \$500 for electric, \$1,800 for HMSA health insurance (for only 3 staff), payroll for seven staff, payroll taxes, bank loans, workers compensation, liability insurance, ProCare, phone, internet, Tuition Express, teacher education for educational curriculum certification, mentor supervision and training, professional development, payments to purchase materials from owner, web maintenance, \$300 for advertising, and \$500 for reserves. The provider is likely going to have to add trash service soon at \$300 per month.

STAFFING & BENEFITS

Salaries among staff varies widely. One provider shared that the starting rate for aides is \$14 per hour with paid education support and a child can attend for free. For teachers the rate is \$18 per hour, \$19 per hour with a bachelor's degree, and \$21 per hour with a master's degree. This same facility has had a position open for the last two months without one qualified applicant. The provider noted that in providing paid education to the staff, that scheduling staff was challenging because of the necessary time away from the facility that was needed to attend classes and internships. Employees are required to pay a small portion toward health insurance.

According to the Bureau of Labor Statistics, staff that are in the beginning of their career or who work in small facilities can expect to earn a salary that is close to the 10th percentile while staff that have 20 or more years of experience or work in large facilities can expect to earn closer to the 90th percentile. Additional resources will need to be figured into the annual operating budget to account for any additional benefits, such as healthcare, tuition support, or retirement.

TABLE 5. SALARY RANGE PER YEAR¹⁹

BLS_TITLE	BLS DEFINITION	10 TH Percentile	25 TH Percentile	Annual Median	75 TH Percentile	90 TH Percentile
Education Administrators, Preschool and Childcare Center/Program	Plan, direct, or coordinate the academic and nonacademic activities of preschool and childcare centers or programs.	\$ 36,700	\$ 44,090	\$ 54,210	\$ 68,630	\$ 92,780
Preschool Teachers, Except Special Education	Instruct preschool-aged children in activities designed to promote social, physical, and intellectual growth needed for primary school in preschool, day care center, or other child development facility.	\$ 28,280	\$ 33,330	\$ 38,840	\$ 45,900	\$ 50,440
Teacher Assistants	Perform duties that are instructional in nature or deliver direct services to students or parents. Serve in a position for which a teacher has ultimate responsibility for the design and implementation of educational programs and services.	\$ 22,320	\$ 25,510	\$ 29,700	\$ 35,030	\$ 39,010
Childcare Workers	Attend to children at schools, businesses, private households, and childcare institutions. Perform a variety of tasks, such as dressing, feeding, bathing, and overseeing play.	\$ 21,010	\$ 21,020	\$ 23,910	\$ 29,300	\$ 33,450

¹⁹ Bureau of Labor Statistics. (2020).

RECOMMENDATIONS

The research of this project has allowed for our MGT team to understand many components of the Hawaiian early childcare facilities. These research efforts allowed for our team to understand current innovative efforts that support the families of Hawaii today. We were able to identify strategic efforts that will support the further expansion of facilities to the underserved communities throughout Hawaii.

Due to the fact that the state of Hawaii is on an island and the state itself is broken up into multiple islands generates a geographical isolation that requires a self-sustaining community on each island. There is a necessity that each island provides services and resources to support a family's daily lifestyle, which often includes childcare services. Due to the remoteness of some locations and commitment to preserve the islands natural features, there are checks and balances that ensure health and safety requirements of any new development. We have found that to construct a standalone childcare business would not support a financially stable childcare organization. The recommendation is that new childcare businesses should work to locate themselves within existing structures or work with strategic community partners to be amongst the new development/construction. There are examples of this facility model throughout the state and could be supported through different size organizations. Locations that have potential of supporting childcare include:

- Churches
- Community Centers
- Shopping centers
- Schools
- Office buildings
- Hotels
- Community residential areas such as condos or nursing homes

If the desire would be to have a new facility, then a strategic partner(s) would be a suitable path to take. There is an allure to construct a new facility because the desired outcome can provide state of the art facilities. Partnering with another organization could support the costs incurred with construction and result in an economy of scale to support this scenario. Partners that might be supportive of this idea because of the mutual benefit could include:

- Businesses that employ a larger number of employees such as corporations, government, or resort/hotels
- Community support locations such as schools or community centers
- Organizations or facilities that provide service to the aging, in effort to create a synergy of care that spans multiple generations

To begin childcare in a region of Hawaii can be overwhelming and uncertain because of unknown community markets. Therefore, starting a home-based childcare business can be a relatively safe way to ease into the market. Beginning this business with less than six unrelated children can begin the process of developing a strong business model and allow for understanding of strategic business practices. If an organization's interest is to provide care out of one's home, there are some strategic considerations to

consider that would support the long-term sustainability of the business. First would be to plan the business's long-term goals. If the goal is to allow for the home-based business to accommodate care for more than six unrelated children, it is important to work with local planning and zoning officials to understand local codes and guidelines on home-based businesses before purchasing a property.

CONCLUSION AND LIMITATIONS

CONCLUSION

After a thorough review of past studies, including the 2017 Early Learning Needs Assessment, interviews with key stakeholders, survey responses, Hawaii (City & County of Honolulu) to Engineering News Record's (ENR) "Construction Cost Index" and "Building Cost Index, and other relevant information, it is clear that there is need for equitable and accessible childcare resources to be provided throughout the entire state of Hawaii. The following conclusions summarize the considerations in order to increase access to childcare.

Private providers are concerned about the potential of an expanded public PreK system because of the potential for vacancies at private childcare facilities. As providers consider adjusting for the potential impact of fewer Pre-K children in their care, they often note that infant and toddler care is not an affordable substitution because of the increased staffing costs. As public Pre-K continues to expand, private providers are experiencing even greater staff shortages than they already had because they often lose qualified staff to the public Pre-K programs. This employment change is often due to higher pay, benefits.

There are extensive efforts by the community to preserve the natural characteristics of the island of Hawaii. The development of a commercial businesses such as childcare is placed under significant discernment causing a perceived delay in development when the timeline for construction should accommodate the appropriate timeline for permits with respect to development on the island of Hawaii.

There are many things to be put into place to develop the infrastructure for childcare to help provide guidance on the consideration of costs. The information in this report is not a definitive number or estimate but used as planning dollars to help budget for the development of a childcare facility. Once a developer would narrow down a location and scope of work it would be best practice to develop a project estimate. Information included in a project estimate would be obtained and include detail on; real estate, building/site construction, permits & professional services.

The physical characteristics of childcare facilities will vary to support the needs of the occupants, as well as align with the environment which they may occupy. Best practice indicates that the creation of spaces that are focused on safety and wellbeing are the number one priority. Long term maintenance should be considered therefore investments into durable, long-lasting equipment and finishes to avoid unanticipated impact to annual operational costs should be prioritized. Most importantly, a child care facility should be nurturing by having natural light, age appropriate colors and child-friendly equipment.

Expanding childcare in Hawaii involves two significant factors that cause a financial impact to the operational and overhead cost which are both related to age of the child. As a national average, the cost of living, real estate, and equipment is the highest in the country. Considering the staffing and

facility requirements within this financial environment, affordable childcare in the state of Hawaii is challenging. Younger children require a smaller ratio of adults to children, therefore increasing the operational costs with staffing can increase the capital or infrastructure cost. The second is that caring for older children increases the capital cost or infrastructure because more space, indoor and outdoor, is required for older children. Even with greater space needs, it is more appealing because fewer staff are required. Factoring in operational and capital costs for a childcare facility does increase the cost significantly which extends to families. When considering the cost of childcare for a family, there is a significant variance between family income and childcare expense.

LIMITATIONS

This study has potential limitations. The scope of this study was to understand the issues involving early childhood care and education facilities across the state of Hawaii. Other assessments related to the PDG B-5 are outside of the scope of this study.

- Researchers were able to speak to or visit only those participants who responded to requests from MGT, EOEL, or any other agencies, resulting in limited access to Family Childcare Homes.
- The large number of unidentified providers created difficulty in distributing a survey with a personalized participant link. Therefore, the survey responses are anonymous and duplicate responses are possible.
- Due to time constraints and participant availability, physical site visits were conducted on Oahu and Kauai.
- With a wide variety of care provider types, identifying exact facility consistencies was not possible. Facilities were assessed by specific DHS or DOE regulations.
- Researchers were not familiar with the local culture and had limited time.
- This research report is one part of the larger needs assessment and the researchers did not have access to the other components.
- Site visits to DOE schools may present a biased picture of principal interest as they were selected for visits based on recent application to add an EOEL pre-k classroom but were not selected at this time.

LEGAL DISCLAIMER

MGT's analysis of facilities and early childhood care and education relies on the accuracy of information provided by EOEL, DHS, Hawaii P-20, and other state agencies, service providers, and childcare providers as well as near-term and long-term assumptions influenced by factors outside of MGT's control and that may adversely impact early childhood care and education in the state of Hawaii. Changes, such as any to Hawaii's financial health and construction materials and costs, as well as state, local, and global economic conditions, may impact both the demand for the program, costs, and/or the project's financial feasibility. Additional risks to the Project plans include, but are not limited to, changes to program demand, competitive programs, regulatory changes, and general acts of disaster.

APPENDIX I: SECTION 17-89504I BUILDING CODES AND SPACE REQUIREMENTS

Section 17-895-4I Building Codes and Space Requirements

- (a) Childcare facilities shall conform to the zoning, building, electrical, plumbing, and fire codes of the county or political subdivision in which the facility is located and to state rules as may be applicable to the facility.
- (b) The facility shall:
- (1) Be located in a safe and reasonably quiet area or employ suitable noise control devices to limit exterior noises to the childcare operation;
 - (2) Have a sunny exposure and be well lighted and ventilated
 - (3) Keep all buildings, building appurtenances, outdoor space, equipment, and all other parts of the facility repaired, safe, and sanitary at all times.
- (c) The program areas specifically designated for infants and toddlers, both indoors and outdoors, shall be separated by permanent structural walls, fences or other barriers in order to:
- (1) Protect the younger children from traffic and high activity levels of older age groups;
 - (2) Minimize congestion and noise pollution; and
 - (3) Avoid staff specifically assigned to infant and toddler care from being pulled from infant and toddler programs into other areas at any time.
- (d) The space requirements for enclosed areas are as follows:
- (1) For daytime care:
 - (A) There shall be thirty-five square feet per child of unencumbered instructional or play area exclusive of bathrooms, kitchens, cupboard space, hallways, and spaces consumed by cribs and playpens;
 - (B) The thirty-five square feet per child requirement can be based on the general square footage area of the entire center, not necessarily based on the square footage of each classroom; and
 - (C) Lanai area, which has both a roof and finished flooring, may be counted for up to thirty percent of the required enclosed area; and
 - (2) For nighttime care, there shall be fifty square feet per child, exclusive of lanai area, in rooms which are used for sleeping.
- (e) The space requirements for outdoor areas are as follows:
- (1) The center shall maintain, or have access to, an outdoor play area of at least seventy-five square feet for each child using the outdoor area at any one time; and
 - (2) Lanai area, when not included in the required enclosed area space, may be counted for up to thirty percent of the required outdoor space.
- (f) The facility shall be equipped with toilets and lavatories as follows:

Number of children	Toilet(s)	Lavatory(ies)
1 - 12	1	1
13 - 30	2	2
31 - 45	3	3
46 - 60	4	4
61 - 75	5	5

APPENDIX 2: COST ESTIMATES BY BUILDING TYPOLOGY

DATA SOURCES:

ENR CONSTRUCTION COST INDEX AND BUILDING COST INDEX

The ENR Construction Cost Index and Building Cost Index are both based on a few consistent data points. They both use three basic materials; Fabricated Structural Steel, Portland Cement and 2x4's as their basis for the Material Cost component. The difference between the two indices is in the Labor Cost component. The Construction Cost Index uses 200 hours of "Common Labor" and the Building Cost Index uses the average hourly wage of three "Skilled Workers"; Bricklayers, Carpenters and Structural Ironworkers as its basis of labor costs.

Calculating both a Construction Cost Index and a Building Cost Index for Honolulu based upon the same criteria as ENR uses for their indices using actual costs in Honolulu. This data example is shown below.

RSMEANS

RSMeans is recognized in the industry as an authority on construction cost data. They research and publish annual Cost Data Books and provide soft copies of their databases that work with several of the more popular construction cost estimating programs. Ideally, they will have an Area Cost Factor to the estimate should "localize" the pricing.

COST ESTIMATE - CONCRETE BLOCK

FOR ADDITIONS AND NEW CONSTRUCTION - DECORATIVE CONCRETE BLOCK BEARING WALLS

Square Foot Cost Estimate Report

Date: 2020

Estimate Name:	Hawaii - New construction - Block
Building Type:	Day Care Center with Decorative Concrete Block / Bearing Walls
Location:	HONOLULU, HI
Story Count:	1
Story Height (L.F.):	12.00
Floor Area (S.F.):	1000
Labor Type:	OPN
Basement Included:	No
Data Release:	Year 2020
Cost Per Square Foot:	\$516.06
Building Cost:	\$516,060.69

		Cost Per S.F.	Cost
A	Substructure	\$85.17	\$85,173.68
A1010	Standard Foundations	\$72.11	\$72,110.00
A10101051560	Foundation wall, CIP, 4' wall height, direct chute, .148 CY/LF, 7.2 PLF, 12" thick	\$45.78	\$45,779.80
A10101102700	Strip footing, concrete, reinforced, load 11.1 KLF, soil bearing capacity 6 KSF, 12" deep x 24" wide	\$25.78	\$25,777.99
A10102107100	Spread footings, 3000 PSI concrete, load 25K, soil bearing capacity 3 KSF, 3' - 0" square x 12" deep	\$0.55	\$552.21
A1030	Slab on Grade	\$6.80	\$6,803.68
A10301202220	Slab on grade, 4" thick, non industrial, non reinforced	\$6.80	\$6,803.68
A2010	Basement Excavation	\$6.26	\$6,260.00
A20101102280	Excavate and fill, 1000 SF 8' deep, sand, gravel, or common earth, on site storage	\$6.26	\$6,260.00
B	Shell	\$199.50	\$199,497.70
B1010	Floor Construction	\$9.20	\$9,197.36
B10102102700	Wood column, 6" x 6", 20' x 20' bay, 12' unsupported height, 90 BF/MSF, 50 PSF total allowable load	\$8.22	\$8,221.66
B10102161450	Wood beam, 3 - 2 x 14, Douglas Fir No. 2, 243 lbs/LF @ 18' span	\$0.98	\$975.70
B1020	Roof Construction	\$94.70	\$94,703.53
B10202100890	Wood roof truss, 2' OC, 60' span, 4:12 pitch, 1' overhang, 5/8" sheathing, 1x8 fascia, R30 insulation	\$94.70	\$94,703.53
B2010	Exterior Walls	\$34.72	\$34,718.75

B20101485200	Wood siding, 2"x6" studs 24"OC, insulated wall, 1" x 5" rabbetted cedar bevel siding	\$34.72	\$34,718.75
B2020	Exterior Windows	\$18.46	\$18,462.53
B20202101150	Aluminum flush tube frame, for 1/4"glass,1-3/4"x4", 5'x6' opening, 1 intermediate horizontal	\$17.59	\$17,587.23
B20202202000	Glazing panel, plate glass, 1/4" thick, clear	\$0.88	\$875.30
B2030	Exterior Doors	\$10.61	\$10,613.28
B20301106550	Door, aluminum & glass, without transom, full vision, double door, hardware, 6'-0" x 7'-0" opening	\$6.61	\$6,605.80
B20302203950	Door, steel 18 gauge, hollow metal, 1 door with frame, "A" label, 3'-0" x 7'-0" opening	\$4.01	\$4,007.48
B3010	Roof Coverings	\$31.80	\$31,802.25
B30101401100	Asphalt roofing, strip shingles, inorganic, Class A, 4" slope, 210-235 lbs/SQ	\$2.62	\$2,620.60
B30103201700	Insulation, rigid, roof deck, polyisocyanurate, 2#/CF, 3" thick	\$15.87	\$15,867.39
B30104305400	Flashing, terne coated, no backing, 28 ga, > 2000 lbs	\$2.82	\$2,818.13
B30106100200	Gutters, box, aluminum, .032" thick, 5", enameled finish	\$7.05	\$7,045.96
B30106200200	Downspout, aluminum, rectangular, 2" x 3", enameled, .024" thick	\$3.45	\$3,450.17
C	Interiors	\$44.16	\$44,158.49
C1010	Partitions	\$4.22	\$4,224.34
C10101241400	Wood partition, 5/8" fire rated gypsum board face, 1/4"sound deadening gypsum board, 2x4 @ 16" OC framing, same opposite face, 1.5" fiberglas insulation	\$4.22	\$4,224.34
C1020	Interior Doors	\$0.55	\$553.47
C10201022600	Door, single leaf, kd steel frame, hollow metal, commercial quality, flush, 3'-0" x 7'-0" x 1-3/8"	\$0.55	\$553.47
C1030	Fittings	\$17.20	\$17,199.00
C10301100460	Toilet partitions, cubicles, ceiling hung, stainless steel	\$17.20	\$17,199.00
C3010	Wall Finishes	\$5.35	\$5,354.55
C30102300080	Painting, interior on plaster and drywall, brushwork, primer & 2 coats	\$1.90	\$1,901.20
C30102300080	Painting, interior on plaster and drywall, brushwork, primer & 2 coats	\$3.45	\$3,453.35
C3020	Floor Finishes	\$8.91	\$8,907.75
C30204101600	Vinyl, composition tile, maximum	\$0.99	\$985.37
C30204101800	Tile, quarry tile, mud set, minimum	\$7.92	\$7,922.38
C3030	Ceiling Finishes	\$7.92	\$7,919.38
C30302106000	Acoustic ceilings, 3/4" fiberglass board, 24" x 48" tile, tee grid, suspended support	\$7.92	\$7,919.38
D	Services	\$56.54	\$56,536.10
D2010	Plumbing Fixtures	\$11.04	\$11,037.50
D20101102080	Water closet, vitreous china, bowl only with flush valve, wall hung	\$0.41	\$412.12
D20103101600	Lavatory w/trim, vanity top, PE on CI, 19" x 16" oval	\$5.51	\$5,507.71

D20104404260	Service sink w/trim, PE on CI, corner floor, 28" x 28", w/rim guard	\$0.58	\$579.54
D20104404260	Service sink w/trim, PE on CI, corner floor, 28" x 28", w/rim guard	\$0.47	\$472.70
D20108201880	Water cooler, electric, wall hung, dual height, 14.3 GPH	\$0.95	\$950.55
D20108201880	Water cooler, electric, wall hung, dual height, 14.3 GPH	\$3.11	\$3,114.88
D2020	Domestic Water Distribution	\$6.94	\$6,943.52
D20202401940	Electric water heater, commercial, 100< F rise, 120 gal, 36 KW 147 GPH	\$6.94	\$6,943.52
D2040	Rain Water Drainage	\$0.41	\$412.11
D20402102080	Roof drain, DWV PVC, 4" diam, for each additional foot add	\$0.41	\$412.11
D3050	Terminal & Package Units	\$8.07	\$8,074.00
D30501501320	Rooftop, single zone, air conditioner, apartment corridors, 1,000 SF, 1.83 ton	\$8.07	\$8,074.00
D5010	Electrical Service/Distribution	\$5.84	\$5,844.76
D50102300280	Feeder installation 600 V, including RGS conduit and XHHW wire, 200 A	\$3.33	\$3,326.03
D50102300280	Feeder installation 600 V, including RGS conduit and XHHW wire, 200 A	\$2.52	\$2,518.73
D5020	Lighting and Branch Wiring	\$16.24	\$16,236.56
D50201100200	Receptacles incl plate, box, conduit, wire, 2.5 per 1000 SF, .3 watts per SF	\$6.80	\$6,802.88
D50201300200	Wall switches, 1.0 per 1000 SF	\$2.12	\$2,118.48
D50201350200	Miscellaneous power, to .5 watts	\$0.34	\$339.78
D50201400280	Central air conditioning power, 4 watts	\$0.17	\$169.89
D50202100520	Fluorescent fixtures recess mounted in ceiling, 1.6 watt per SF, 40 FC, 10 fixtures @32watt per 1000 SF	\$0.72	\$717.60
D50202100520	Fluorescent fixtures recess mounted in ceiling, 1.6 watt per SF, 40 FC, 10 fixtures @32watt per 1000 SF	\$6.09	\$6,087.93
D5030	Communications and Security	\$7.88	\$7,882.45
D50309100460	Fire alarm command center, addressable without voice, excl. wire & conduit	\$1.06	\$1,057.75
D50309100460	Fire alarm command center, addressable without voice, excl. wire & conduit	\$6.82	\$6,824.70
D5090	Other Electrical Systems	\$0.11	\$105.20
D50902100280	Generator sets, w/battery, charger, muffler and transfer switch, gas/gasoline operated, 3 phase, 4 wire, 277/480 V, 15 kW	\$0.11	\$105.20
E	Equipment & Furnishings	\$0.47	\$473.80
E1090	Other Equipment	\$0.47	\$473.80
E1090284611275200	2.00-Detection system, heat detector, smoke detector, ceiling type, excl. wires & conduit	\$0.47	\$473.80
SubTotal		\$385.84	\$385,839.77
Contractor Fees (General Conditions,Overhead,Profit)		\$96.46	\$96,459.94
Architectural Fees		\$33.76	\$33,760.98
User Fees		\$0.00	\$0.00
Total Building Cost		\$516.06	\$516,060.69

COST ESTIMATE - TILT-UP CONCRETE PANELS

FOR ADDITIONS AND NEW CONSTRUCTION - TILT-UP CONCRETE PANELS / STEEL JOISTS

Square Foot Cost Estimate Report		Date: 2020
Estimate Name:	Hawaii - New construction - Tilt up	
Building Type:	Day Care Center with Tilt-up Concrete Panels / Steel Joists	
Location:	HONOLULU, HI	
Story Count:	1	
Story Height (L.F.):	12.00	
Floor Area (S.F.):	1000	
Labor Type:	OPN	
Basement Included:	No	
Data Release:	Year 2020	
Cost Per Square Foot:	\$487.51	
Building Cost:	\$487,511.71	

		Cost Per S.F.	Cost
A	Substructure	\$85.45	\$85,449.78
A1010	Standard Foundations	\$72.39	\$72,386.10
A10101051560	Foundation wall, CIP, 4' wall height, direct chute, .148 CY/LF, 7.2 PLF, 12" thick	\$45.78	\$45,779.80
A10101102700	Strip footing, concrete, reinforced, load 11.1 KLF, soil bearing capacity 6 KSF, 12" deep x 24" wide	\$25.78	\$25,777.99
A10102107200	Spread footings, 3000 PSI concrete, load 50K, soil bearing capacity 6 KSF, 3' - 0" square x 12" deep	\$0.83	\$828.31
A1030	Slab on Grade	\$6.80	\$6,803.68
A10301202220	Slab on grade, 4" thick, non industrial, non reinforced	\$6.80	\$6,803.68
A2010	Basement Excavation	\$6.26	\$6,260.00
A20101102280	Excavate and fill, 1000 SF 8' deep, sand, gravel, or common earth, on site storage	\$6.26	\$6,260.00
B	Shell	\$174.58	\$174,577.74
B1020	Roof Construction	\$12.90	\$12,904.33
B10201082200	Roof, steel joists, beams, 1.5" 22 ga metal deck, on columns and bearing wall, 20'x20' bay, 18" deep, 40 PSF superimposed load, 60 PSF total load	\$10.18	\$10,181.76
B10201082300	Roof, steel joists, beams, 1.5" 22 ga metal deck, on columns and bearing wall, 20'x20' bay, 18" deep, 40 PSF superimposed load, 60 PSF total load, add for column	\$2.72	\$2,722.57
B2010	Exterior Walls	\$73.31	\$73,312.38

B20101155430	Concrete block (CMU) wall, split rib, 8 ribs, hollow, regular weight, 8x8x16, reinforced, vertical #4@48", grouted	\$73.31	\$73,312.38
B2020	Exterior Windows	\$52.31	\$52,305.98
B20202101150	Aluminum flush tube frame, for 1/4"glass,1-3/4"x4", 5'x6' opening, 1 intermediate horizontal	\$34.72	\$34,718.75
B20202202000	Glazing panel, plate glass, 1/4" thick, clear	\$17.59	\$17,587.23
B2030	Exterior Doors	\$7.48	\$7,481.10
B20301106550	Door, aluminum & glass, without transom, full vision, double door, hardware, 6'-0" x 7'-0" opening	\$0.88	\$875.30
B20302203950	Door, steel 18 gauge, hollow metal, 1 door with frame, "A" label, 3'-0" x 7'-0" opening	\$6.61	\$6,605.80
B3010	Roof Coverings	\$28.57	\$28,573.95
B30101202000	Roofing, single ply membrane, EPDM, 45mils, fully adhered	\$3.04	\$3,040.00
B30103201700	Insulation, rigid, roof deck, polyisocyanurate, 2#/CF, 3" thick	\$2.62	\$2,620.60
B30104201400	Roof edges, aluminum, duranodic, .050" thick, 6" face	\$15.87	\$15,867.39
B30104300040	Flashing, aluminum, no backing sides, .019"	\$7.05	\$7,045.96
C	Interiors	\$30.23	\$30,227.12
C1010	Partitions	\$4.22	\$4,224.34
C10101265400	Metal partition, 5/8"fire rated gypsum board face, no base,3 - 5/8" @ 24" OC framing, same opposite face, no insulation	\$4.22	\$4,224.34
C1020	Interior Doors	\$0.55	\$553.47
C10201022600	Door, single leaf, kd steel frame, hollow metal, commercial quality, flush, 3'-0" x 7'-0" x 1-3/8"	\$0.55	\$553.47
C1030	Fittings	\$0.32	\$321.54
C10301100540	Toilet partitions, cubicles, floor and ceiling anchored, painted metal	\$0.32	\$321.54
C3010	Wall Finishes	\$8.30	\$8,300.64
C30102202000	2 coats paint on masonry with block filler	\$1.90	\$1,901.20
C30102300080	Painting, interior on plaster and drywall, brushwork, primer & 2 coats	\$6.40	\$6,399.44
C3020	Floor Finishes	\$8.91	\$8,907.75
C30204101600	Vinyl, composition tile, maximum	\$0.99	\$985.37
C30204101800	Tile, quarry tile, mud set, minimum	\$7.92	\$7,922.38
C3030	Ceiling Finishes	\$7.92	\$7,919.38
C30302106000	Acoustic ceilings, 3/4" fiberglass board, 24" x 48" tile, tee grid, suspended support	\$7.92	\$7,919.38
D	Services	\$73.77	\$73,766.30
D2010	Plumbing Fixtures	\$9.51	\$9,507.41
D20101102080	Water closet, vitreous china, bowl only with flush valve, wall hung	\$0.41	\$412.12
D20103101600	Lavatory w/trim, vanity top, PE on CI, 19" x 16" oval	\$5.51	\$5,507.71
D20104404260	Service sink w/trim, PE on CI, corner floor, 28" x 28", w/rim guard	\$0.47	\$472.70
D20108201880	Water cooler, electric, wall hung, dual height, 14.3 GPH	\$3.11	\$3,114.88
D2020	Domestic Water Distribution	\$6.96	\$6,958.95

APPENDIX 2: COST ESTIMATES BY BUILDING TYPOLOGY

D20202401940	Electric water heater, commercial, 100< F rise, 120 gal, 36 KW 147 GPH	\$6.96	\$6,958.95
D2040	Rain Water Drainage	\$12.47	\$12,466.36
D20402102040	Roof drain, DWV PVC, 4" diam, diam, 10' high	\$0.41	\$412.57
D20402102080	Roof drain, DWV PVC, 4" diam, for each additional foot add	\$12.05	\$12,053.79
D3050	Terminal & Package Units	\$8.07	\$8,074.00
D30501501320	Rooftop, single zone, air conditioner, apartment corridors, 1,000 SF, 1.83 ton	\$8.07	\$8,074.00
D4010	Sprinklers	\$12.64	\$12,640.00
D40103100560	Dry pipe sprinkler systems, steel, light hazard, 1 floor, 1000 SF	\$12.64	\$12,640.00
D5010	Electrical Service/Distribution	\$6.80	\$6,802.88
D50102300280	Feeder installation 600 V, including RGS conduit and XHHW wire, 200 A	\$6.80	\$6,802.88
D5020	Lighting and Branch Wiring	\$10.49	\$10,491.43
D50201100200	Receptacles incl plate, box, conduit, wire, 2.5 per 1000 SF, .3 watts per SF	\$2.12	\$2,118.48
D50201100200	Receptacles incl plate, box, conduit, wire, 2.5 per 1000 SF, .3 watts per SF	\$0.34	\$339.78
D50201300200	Wall switches, 1.0 per 1000 SF	\$0.17	\$169.89
D50201350200	Miscellaneous power, to .5 watts	\$0.72	\$717.60
D50201400280	Central air conditioning power, 4 watts	\$6.09	\$6,087.93
D50202100520	Fluorescent fixtures recess mounted in ceiling, 1.6 watt per SF, 40 FC, 10 fixtures @32watt per 1000 SF	\$1.06	\$1,057.75
D5030	Communications and Security	\$6.83	\$6,825.27
D50303100280	Telephone systems, underfloor duct, 7' on center, low density	\$0.00	\$0.57
D50309100460	Fire alarm command center, addressable without voice, excl. wire & conduit	\$6.82	\$6,824.70
E	Equipment & Furnishings	\$0.47	\$473.80
E1090	Other Equipment	\$0.47	\$473.80
E1090284611275200	2.00-Detection system, heat detector, smoke detector, ceiling type, excl. wires & conduit	\$0.47	\$473.80
SubTotal		\$364.49	\$364,494.74
Contractor Fees (General Conditions,Overhead,Profit)		\$91.12	\$91,123.69
Architectural Fees		\$31.89	\$31,893.29
User Fees		\$0.00	\$0.00
Total Building Cost		\$487.51	\$487,511.71

COST ESTIMATE - BRICK VENEER

FOR ADDITIONS AND NEW CONSTRUCTION - BRICK VENEER / WOOD FRAME

Square Foot Cost Estimate Report		Date: 2020
Estimate Name:	Brick wood frame	
Building Type:	Day Care Center with Brick Veneer / Wood Frame	
Location:	HONOLULU, HI	
Story Count:	1	
Story Height (L.F.):	12.00	
Floor Area (S.F.):	1000	
Labor Type:	OPN	
Basement Included:	No	
Data Release:	Year 2020	
Cost Per Square Foot:	\$520.22	

		Cost Per S.F.	Cost
A	Substructure	\$79.00	\$78,997.57
A1010	Standard Foundations	\$71.83	\$71,833.89
A10101051560	Foundation wall, CIP, 4' wall height, direct chute, .148 CY/LF, 7.2 PLF, 12" thick	\$45.78	\$45,779.80
A10101102700	Strip footing, concrete, reinforced, load 11.1 KLF, soil bearing capacity 6 KSF, 12" deep x 24" wide	\$25.78	\$25,777.99
A10102107200	Spread footings, 3000 PSI concrete, load 50K, soil bearing capacity 6 KSF, 3' - 0" square x 12" deep	\$0.28	\$276.10
A1030	Slab on Grade	\$6.80	\$6,803.68
A10301202220	Slab on grade, 4" thick, non industrial, non reinforced	\$6.80	\$6,803.68
A2010	Basement Excavation	\$0.36	\$360.00
A20101104560	Excavate and fill, 10,000 SF, 4' deep, sand, gravel, or common earth, on site storage	\$0.36	\$360.00
B	Shell	\$214.38	\$214,377.13
B1010	Floor Construction	\$0.26	\$263.92
B10102102900	Wood column, 6" x 6", 20' x 25' bay, 12' unsupported height, 72 BF/MSF, 40 PSF total allowable load	\$0.07	\$69.83
B10102161450	Wood beam, 3 - 2 x 14, Douglas Fir No. 2, 243 lbs/LF @ 18' span	\$0.19	\$194.09
B1020	Roof Construction	\$9.39	\$9,392.31
B10202100890	Wood roof truss, 2' OC, 60' span, 4:12 pitch, 1' overhang, 5/8" sheathing, 1x8 fascia, R30 insulation	\$9.39	\$9,392.31
B2010	Exterior Walls	\$136.25	\$136,251.19
B20101291400	Brick veneer wall, standard face, 2x6 studs @ 16" back-up, running bond	\$136.25	\$136,251.19

B2020	Exterior Windows	\$52.31	\$52,305.98
B20202101150	Aluminum flush tube frame, for 1/4"glass,1-3/4"x4", 5'x6' opening, 1 intermediate horizontal	\$34.72	\$34,718.75
B20202202000	Glazing panel, plate glass, 1/4" thick, clear	\$17.59	\$17,587.23
B2030	Exterior Doors	\$7.48	\$7,481.10
B20301106550	Door, aluminum & glass, without transom, full vision, double door, hardware, 6'-0" x 7'-0" opening	\$0.88	\$875.30
B20302203950	Door, steel 18 gauge, hollow metal, 1 door with frame, "A" label, 3'-0" x 7'-0" opening	\$6.61	\$6,605.80
B3010	Roof Coverings	\$8.68	\$8,682.63
B30101401100	Asphalt roofing, strip shingles, inorganic, Class A, 4" slope, 210-235 lbs/SQ	\$2.65	\$2,653.56
B30103201700	Insulation, rigid, roof deck, polyisocyanurate, 2#/CF, 3" thick	\$2.62	\$2,620.60
B30106100200	Gutters, box, aluminum, .032" thick, 5", enameled finish	\$3.33	\$3,334.98
B30106200200	Downspout, aluminum, rectangular, 2" x 3", enameled, .024" thick	\$0.07	\$73.49
C	Interiors	\$33.89	\$33,893.99
C1010	Partitions	\$6.51	\$6,506.05
C10101241400	Wood partition, 5/8" fire rated gypsum board face, 1/4"sound deadening gypsum board, 2x4 @ 16" OC framing, same opposite face, 1.5" fiberglass insulation	\$6.51	\$6,506.05
C1020	Interior Doors	\$4.22	\$4,224.34
C10201022600	Door, single leaf, kd steel frame, hollow metal, commercial quality, flush, 3'-0" x 7'-0" x 1-3/8"	\$4.22	\$4,224.34
C1030	Fittings	\$0.31	\$312.21
C10301100680	Toilet partitions, cubicles, floor mounted, painted metal	\$0.31	\$312.21
C3010	Wall Finishes	\$8.30	\$8,300.64
C30102300080	Painting, interior on plaster and drywall, brushwork, primer & 2 coats	\$6.40	\$6,399.44
C30102300080	Painting, interior on plaster and drywall, brushwork, primer & 2 coats	\$1.90	\$1,901.20
C3020	Floor Finishes	\$6.63	\$6,628.37
C30204101800	Tile, quarry tile, mud set, minimum	\$0.99	\$985.37
C30206000075	Resilient base, 1/8" vinyl corner, 6" H, straight or cove, std. colors	\$5.64	\$5,643.00
C3030	Ceiling Finishes	\$7.92	\$7,922.38
C30302106000	Acoustic ceilings, 3/4" fiberglass board, 24" x 48" tile, tee grid, suspended support	\$7.92	\$7,922.38
D	Services	\$55.76	\$55,758.25
D2010	Plumbing Fixtures	\$11.99	\$11,989.31
D20101102080	Water closet, vitreous china, bowl only with flush valve, wall hung	\$7.92	\$7,919.38
D20103101600	Lavatory w/trim, vanity top, PE on CI, 19" x 16" oval	\$2.54	\$2,539.84
D20104404260	Service sink w/trim, PE on CI, corner floor, 28" x 28", w/rim guard	\$0.58	\$579.54
D20108201880	Water cooler, electric, wall hung, dual height, 14.3 GPH	\$0.95	\$950.55

D2020	Domestic Water Distribution	\$3.11	\$3,114.88
D20202401940	Electric water heater, commercial, 100< F rise, 120 gal, 36 KW 147 GPH	\$3.11	\$3,114.88
D3050	Terminal & Package Units	\$8.07	\$8,074.00
D30501501320	Rooftop, single zone, air conditioner, apartment corridors, 1,000 SF, 1.83 ton	\$8.07	\$8,074.00
D4010	Sprinklers	\$12.64	\$12,640.00
D40103100560	Dry pipe sprinkler systems, steel, light hazard, 1 floor, 1000 SF	\$12.64	\$12,640.00
D5010	Electrical Service/Distribution	\$2.52	\$2,518.73
D50102300280	Feeder installation 600 V, including RGS conduit and XHHW wire, 200 A	\$2.52	\$2,518.73
D5020	Lighting and Branch Wiring	\$9.43	\$9,433.68
D50201100200	Receptacles incl plate, box, conduit, wire, 2.5 per 1000 SF, .3 watts per SF	\$2.12	\$2,118.48
D50201300200	Wall switches, 1.0 per 1000 SF	\$0.34	\$339.78
D50201350200	Miscellaneous power, to .5 watts	\$0.17	\$169.89
D50201400280	Central air conditioning power, 4 watts	\$0.72	\$717.60
D50202100520	Fluorescent fixtures recess mounted in ceiling, 1.6 watt per SF, 40 FC, 10 fixtures @32watt per 1000 SF	\$6.09	\$6,087.93
D5030	Communications and Security	\$7.88	\$7,882.45
D50309100452	Communication and alarm systems, fire detection, addressable, 25 detectors, includes outlets, boxes, conduit and wire	\$1.06	\$1,057.75
D50309100460	Fire alarm command center, addressable without voice, excl. wire & conduit	\$6.82	\$6,824.70
D5090	Other Electrical Systems	\$0.11	\$105.20
D50902100280	Generator sets, w/battery, charger, muffler and transfer switch, gas/gasoline operated, 3 phase, 4 wire, 277/480 V, 15 kW	\$0.11	\$105.20
E	Equipment & Furnishings	\$5.92	\$5,923.64
E1020	Institutional Equipment	\$5.45	\$5,449.84
E10207300120	Architectural equipment, laboratory equipment, cabinets, base, drawer units	\$5.45	\$5,449.84
E1090	Other Equipment	\$0.47	\$473.80
E1090284611275200	2.00-Detection system, heat detector, smoke detector, ceiling type, excl. wires & conduit	\$0.47	\$473.80
SubTotal		\$388.95	\$388,950.58
Contractor Fees (General Conditions,Overhead,Profit)		\$97.24	\$97,237.65
Architectural Fees		\$34.03	\$34,033.18
User Fees		\$0.00	\$0.00
Total Building Cost per Square Foot		\$520.22	\$520,221.40

COST ESTIMATE - WOOD CLAPBOARD

FOR ADDITIONS AND NEW CONSTRUCTION - WOOD CLAPBOARD / WOOD FRAME

Square Foot Cost Estimate Report

Date: 2020

Estimate Name:	Hawaii - New construction - wood construction
Building Type:	Day Care Center with Wood Clapboard / Wood Frame
Location:	HONOLULU, HI
Story Count:	1
Story Height (L.F.):	12.00
Floor Area (S.F.):	1000
Labor Type:	OPN
Basement Included:	No
Data Release:	Year 2020
Cost Per Square Foot:	\$420.69
Building Cost:	\$420,691.45

		Cost Per S.F.	Cost
A	Substructure	\$84.90	\$84,897.57
A1010	Standard Foundations	\$71.83	\$71,833.89
A10101051560	Foundation wall, CIP, 4' wall height, direct chute, .148 CY/LF, 7.2 PLF, 12" thick	\$45.78	\$45,779.80
A10101102700	Strip footing, concrete, reinforced, load 11.1 KLF, soil bearing capacity 6 KSF, 12" deep x 24" wide	\$25.78	\$25,777.99
A10102107100	Spread footings, 3000 PSI concrete, load 25K, soil bearing capacity 3 KSF, 3' - 0" square x 12" deep	\$0.28	\$276.10
A1030	Slab on Grade	\$6.80	\$6,803.68
A10301202220	Slab on grade, 4" thick, non industrial, non reinforced	\$6.80	\$6,803.68
A2010	Basement Excavation	\$6.26	\$6,260.00
A20101102280	Excavate and fill, 1000 SF 8' deep, sand, gravel, or common earth, on site storage	\$6.26	\$6,260.00
B	Shell	\$157.57	\$157,566.10
B1010	Floor Construction	\$0.28	\$279.32
B10102102700	Wood column, 6" x 6", 20' x 20' bay, 12' unsupported height, 90 BF/MSF, 50 PSF total allowable load	\$0.09	\$85.23
B10102161450	Wood beam, 3 - 2 x 14, Douglas Fir No. 2, 243 lbs/LF @ 18' span	\$0.19	\$194.09
B1020	Roof Construction	\$9.39	\$9,392.31
B10202100890	Wood roof truss, 2' OC, 60' span, 4:12 pitch, 1' overhang, 5/8" sheathing, 1x8 fascia, R30 insulation	\$9.39	\$9,392.31
B2010	Exterior Walls	\$71.96	\$71,963.06

B20101485200	Wood siding, 2"x6" studs 24"OC, insulated wall, 1" x 5" rabbetted cedar bevel siding	\$71.96	\$71,963.06
B2020	Exterior Windows	\$52.31	\$52,305.98
B20202101150	Aluminum flush tube frame, for 1/4"glass,1-3/4"x4", 5'x6' opening, 1 intermediate horizontal	\$34.72	\$34,718.75
B20202202000	Glazing panel, plate glass, 1/4" thick, clear	\$17.59	\$17,587.23
B2030	Exterior Doors	\$7.48	\$7,481.10
B20301106550	Door, aluminum & glass, without transom, full vision, double door, hardware, 6'-0" x 7'-0" opening	\$0.88	\$875.30
B20302203950	Door, steel 18 gauge, hollow metal, 1 door with frame, "A" label, 3'-0" x 7'-0" opening	\$6.61	\$6,605.80
B3010	Roof Coverings	\$16.14	\$16,144.33
B30101401100	Asphalt roofing, strip shingles, inorganic, Class A, 4" slope, 210-235 lbs/SQ	\$2.65	\$2,653.56
B30103201700	Insulation, rigid, roof deck, polyisocyanurate, 2#/CF, 3" thick	\$2.62	\$2,620.60
B30104305400	Flashing, terne coated, no backing, 28 ga, > 2000 lbs	\$7.46	\$7,461.70
B30106100200	Gutters, box, aluminum, .032" thick, 5", enameled finish	\$3.33	\$3,334.98
B30106200200	Downspout, aluminum, rectangular, 2" x 3", enameled, .024" thick	\$0.07	\$73.49
C	Interiors	\$31.95	\$31,945.60
C1010	Partitions	\$6.51	\$6,506.05
C10101241400	Wood partition, 5/8" fire rated gypsum board face, 1/4"sound deadening gypsum board, 2x4 @ 16" OC framing, same opposite face, 1.5" fiberglass insulation	\$6.51	\$6,506.05
C1020	Interior Doors	\$4.22	\$4,224.34
C10201022600	Door, single leaf, kd steel frame, hollow metal, commercial quality, flush, 3'-0" x 7'-0" x 1-3/8"	\$4.22	\$4,224.34
C1030	Fittings	\$0.55	\$553.47
C10301100460	Toilet partitions, cubicles, ceiling hung, stainless steel	\$0.55	\$553.47
C3010	Wall Finishes	\$8.30	\$8,300.64
C30102300080	Painting, interior on plaster and drywall, brushwork, primer & 2 coats	\$1.90	\$1,901.20
C30102300080	Painting, interior on plaster and drywall, brushwork, primer & 2 coats	\$6.40	\$6,399.44
C3020	Floor Finishes	\$4.44	\$4,438.72
C30204101600	Vinyl, composition tile, maximum	\$3.45	\$3,453.35
C30204101800	Tile, quarry tile, mud set, minimum	\$0.99	\$985.37
C3030	Ceiling Finishes	\$7.92	\$7,922.38
C30302106000	Acoustic ceilings, 3/4" fiberglass board, 24" x 48" tile, tee grid, suspended support	\$7.92	\$7,922.38
D	Services	\$33.88	\$33,881.30
D2010	Plumbing Fixtures	\$11.99	\$11,989.31
D20101102080	Water closet, vitreous china, bowl only with flush valve, wall hung	\$7.92	\$7,919.38

D20103101600	Lavatory w/trim, vanity top, PE on CI, 19" x 16" oval	\$2.54	\$2,539.84
D20104404260	Service sink w/trim, PE on CI, corner floor, 28" x 28", w/rim guard	\$0.58	\$579.54
D20108201880	Water cooler, electric, wall hung, dual height, 14.3 GPH	\$0.95	\$950.55
D2020	Domestic Water Distribution	\$3.11	\$3,114.88
D20202401940	Electric water heater, commercial, 100< F rise, 120 gal, 36 KW 147 GPH	\$3.11	\$3,114.88
D5010	Electrical Service/Distribution	\$2.52	\$2,518.73
D50102300280	Feeder installation 600 V, including RGS conduit and XHHW wire, 200 A	\$2.52	\$2,518.73
D5020	Lighting and Branch Wiring	\$9.43	\$9,433.68
D50201100200	Receptacles incl plate, box, conduit, wire, 2.5 per 1000 SF, .3 watts per SF	\$2.12	\$2,118.48
D50201300200	Wall switches, 1.0 per 1000 SF	\$0.34	\$339.78
D50201350200	Miscellaneous power, to .5 watts	\$0.17	\$169.89
D50201400280	Central air conditioning power, 4 watts	\$0.72	\$717.60
D50202100520	Fluorescent fixtures recess mounted in ceiling, 1.6 watt per SF, 40 FC, 10 fixtures @32watt per 1000 SF	\$6.09	\$6,087.93
D5030	Communications and Security	\$6.82	\$6,824.70
D50309100460	Fire alarm command center, addressable without voice, excl. wire & conduit	\$6.82	\$6,824.70
E	Equipment & Furnishings	\$0.47	\$473.80
E1090	Other Equipment	\$0.47	\$473.80
E1090284611275200	2.00-Detection system, heat detector, smoke detector, ceiling type, excl. wires & conduit	\$0.47	\$473.80
SubTotal		\$308.76	\$308,764.37
Contractor Fees (General Conditions, Overhead, Profit)		\$77.19	\$77,191.09
Architectural Fees		\$34.74	\$34,735.99
User Fees		\$0.00	\$0.00
Total Building Cost		\$420.69	\$420,691.45



FINANCIAL PLANNING MODELS FOR CHILDCARE IN HAWAII

RESEARCH CORPORATION OF THE
UNIVERSITY OF HAWAII

**Financial Planning Models
Supplemental Report**

April 3, 2020

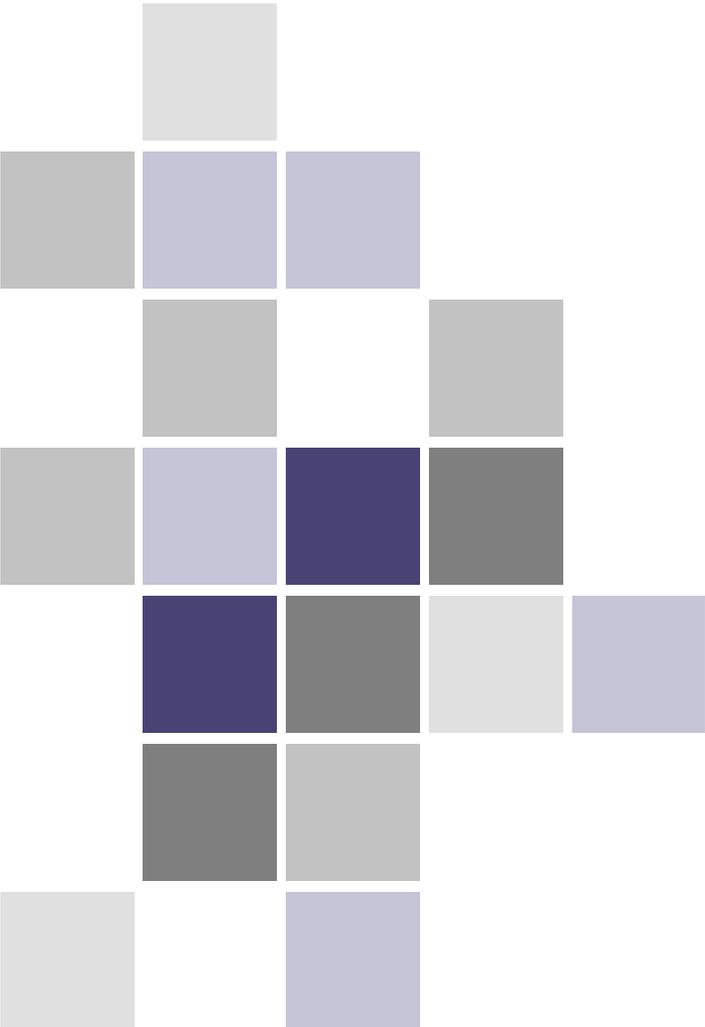


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CONSTRUCTION CONSIDERATIONS

The goal of this supplemental document is to provide a narrative of typical childcare scenarios and a range of cost estimates for each of these scenarios.

For the purpose of this report child care is offered through Center-Based programs, Family Child Care Homes, Family-Child Interaction Learning programs, and Home Visiting programs. Many of these programs are all housed in similar facilities to support the different program models, either commercial or residential. This supplemental document serves as an extension of the work done in the Hawaii Preschool Development Grant Birth to Five Program report. This additional work identifies costs associated with buildings and operational start up. Center-Based programs and Family-Child Interaction Learning Programs have a similar building typology which uses commercial construction practices that is portrayed in this document. Family childcare homes and Home Visiting programs are residential based which the building costs evolve from availability of one's personal residential property. The assumption with the residential environments is that someone would use their personal home and models portrayed identify potential costs associated with renovation if needed. Note that residential market varies by location and economic trends and can fluctuate quickly. In 2018, median home values throughout the state of Hawaii are identified at \$503/square foot per the online real estate database Zillow. The islands residential real estate finds that Maui has the costliest residential spaces while Molokai at the lowest.

As considerations for investments into a building for a child care center are developed, it is important to acknowledge that building estimate costs are consistent in scenarios for different care providers. After deciding upon the specific childcare demographic and building location, the estimate will have more data and a project/construction estimate should be obtained. In the following construction cost tables, there are considerations that might impact construction allowances depending on the care type.

A lifestyle of residing on the islands of Hawaii has many benefits but the cost can be 30% more than on the mainland¹. There are two distinctive areas of Hawaii used by RS Means² which represent an average range of constructions costs with Honolulu representing the upper cost and Hilo the lower cost potential. It should be noted that the numbers provided in this report are averages for these areas. There are factors that can cause an increase or decrease cost such as remoteness, site conditions, size of project, design, materials, and buildability of the site. Therefore, these numbers are for project planning only and a detailed estimate should be obtained once a project scope of work is developed to provide a more accurate construction estimate.

Three scenarios of commercial construction are considered with these projection models. The first scenario is a new building on an undeveloped site. For this scenario, building costs are typically less, however, there will be more costs incurred for site development as no infrastructure may exist. Site development can include site preparation and infrastructure such as utilities. The second scenario is major renovation. This scenario would assume that the site currently has the shell or infrastructure of a

¹ <https://livability.com/hi/affordable-places-to-live/the-5-most-affordable-cities-in-hawaii>

² <https://www.rsmeans.com/landing-pages/why-rsmeans.aspx>

building but requires all interiors and site adjacencies to be developed. Site adjacency developments may include appropriate building entries and playground access. The third scenario is minor renovation. Minor renovation would assume that the site and building are in safe operating condition to accommodate the proper health and safety of those occupants but requires adjustments based on the use. This type of scope could include updates to finishes, potential non-load bearing wall modification and fixture changes. Residential renovation construction scenarios are shared each assuming that there is space provided for child care in one's home. There are two types of renovation that suggest either a large or minor scope of work. There are also a scenarios which suggests additions to one's home as a supplement to space which may be deficient in the existing home to support the child care requirements.

The scenarios presented may not reflect each and every scenario but could be used in combination because of square footage calculations provided. If a community structure, such as a church, had space available for use as a child care center but the space does not adequately support the size request, an addition to the building might be considered. For example, if a tenant would like a total space of 6,000 square feet but the community space has only 4,000 square feet of space to offer, developing a project planning estimate might use a combination of all three cost scenarios. Depending on the shape of spaces and existing infrastructure, such as plumbing and HVAC, the planning estimate might be 2,000 sq. ft. of new building for the addition, 1,000 sq. ft. of major renovation for the connection and 3,000 sq. ft. of minor renovation for the existing building. Notice that in this example only 1,000 sq. ft. of major renovation versus the assumed evenly divided 2,000 sq. ft. This is to suggest that it will be important to consider the site condition and a strategic application of this data is to be considered. Consider the addition's site condition and building infrastructure such as HVAC, plumbing and openings in the building where the addition might occur. It is suggested to strategically consider the location of connection to the existing space can be strategic and minimal depending on site conditions, building infrastructure and design.

Keep in mind that it is often said that developing a project estimate is a combination of art and science therefore the more data provided makes the construction estimate more accurate but yet never completely accurate because there are always unknown factors when planning a project.

SQUARE FOOTAGE COSTS

Table 1 considers a total building footprint size of 2,000 gross square feet. A factor of 40% of total building square feet is initiated to accommodate for circulation, support and building components. The budgets represented below not only support fees to construct a building but also the fees associated with building professionals, including architectural, engineering, and permitting. The estimate assumes that the building has 1,200 net square feet of dedicated child care space and is single story with 10-foot interior floor height that will support 24 to 35 children. The playground size is demonstrated at 2,800 square feet with 225 linear feet of fence line. In this estimation, it is important to note that a larger project can have more efficient costs per square foot because of the economies of scale. The same idea is applied to smaller projects which could be a higher price cost per square foot. All estimations are made using open shop trade workers with private funding to complete construction. The resource used is RS Means construction data for 2020. The most appropriate cost models were provided to support the most

appropriate application and per data available that included new daycares, renovations to elementary schools and home construction costs. According to RSMeans.com,

RSMeans data from Gordian is North America's leading construction cost database. A dynamic collection of data points actively monitored by experienced Cost Engineers, RSMeans data is used by construction professionals to create budgets, estimate projects, validate their own cost data and plan for ongoing facilities maintenance. Localized, accurate and complete, RSMeans data is the construction industry standard.³

Once a construction project estimate is in place it is important to provide a contingency budget to support the unknowns of a project that can occur once the project commences. Typically, a contingency is between 5-10% of the building budget. Budgeting less than 5% for contingencies is not recommended. Risks to a project can include weather, scheduling, economic climate, and any unforeseen existing site conditions. Owners can also suggest modifications to the design of the project during construction, which can be financially supported through the contingency budget. Taking all of the variables into consideration, it is possible to minimize any risk by conducting the proper planning and hiring the correct architectural and engineering professionals to support a quality project. The owner will always have control of the spending of the contingency budget. In an ideal scenario, the full contingency budget would not be used, however, beginning a project without a contingency budget would not be good practice.

The Table 1 represents commercial building scenarios and costs incurred with construction, fixtures, furnishings, and daycare supply startup only. Costs associated with a residential home can be found in Table 2. High or low costs represent average highs or lows. The major contributing factors to these differences are average labor costs, transportation of materials or availability. It is best practice to identify inclusions of an estimate and not provide exclusions because there can be a vast range of scenarios and future innovations that can be associated with each project.

TABLE 1. INITIAL COSTS FOR A 1,200 NET SQUARE FOOT CHILD CARE FACILITY

	New Construction		Major Renovation		Minor Renovation	
	High	Low	High	Low	High	Low
Building cost per sf*	\$290.85/sf	\$259.12/sf	\$164.67/SF	\$161.21/SF	\$43.38/SF	\$42.11/SF
Building cost including contingency**	\$319.94/sf	\$272.08/sf	\$181.14/SF	\$169.27/SF	\$47.72/SF	\$44.22/SF
1,200 useable building sf	\$639,870.00	\$544,152.00	\$217,364.40	\$203,124.60	\$57,261.60	\$53,058.60
Allowance site	\$980,001.21	\$777,470.78	\$272,322.22	\$192,032.34	\$272,322.22	\$192,032.34
Allowance Startup	\$87,500 ⁴ Max.			\$36,000 ⁵ Min.		
Project Total	\$1,707,371.21	\$1,357,622.78	\$577,186.62\$	\$431,156.94	\$417,083.82	\$281,090.94

³Definition of RSMeans:

https://www.rsmeans.com/?gclid=Cj0KCQjwyPbzBRDsARIsAFh15JafzOJMrEgLN0yMJwxqDaUdhvYqG2owV9vXD9eEihBAQCFH1r1WjsoaAlmQEA Lw_wcB

⁴ Accommodates 35 students at 35 square feet per student

⁵ Accommodates 24 students at 50 square feet per student

*Union costs are 10% additional per square foot

**Maximum contingency factor is 10% and minimum contingency factor is 5%

Table 2 considers some different applications for a child care business in a home environment or an individual's current home. The minimum space required for 6 children is 210 square note that the costs identified recognizes that each home would not necessarily provide a perfect 210 square foot space for renovation and has calculated the numbers to accommodate overrun and that modifications will expand into additional areas of the home. The following numbers are an attempt to provide an idea of costs that might be involved with setting up childcare costs in a home and should only be considered as planning dollars. Only until proper consideration of the scope of work is defined and appropriate building professionals are hired should one begin to define their project cost estimate. Remember that costs can vary based on the scope of work if there is minimal disruption to the floor plan and building infrastructure such as HVAC, electrical or plumbing costs can remain low. Finishes can vary a project's costs significantly both short and long term. If an inexpensive finish product, such as carpeting, is installed, the material may not last as long, causing an expense sooner anticipated. To save costs, inexpensive products should be strategically installed inexpensive products it would be best to put those in low traffic areas such as a bedroom, it would be best to install high quality and durable materials in high traffic areas. The chart below assumes mid-grade materials in all applications using RSMMeans residential data in Hawaii.

Similar to the commercial construction mentioned earlier in this report this chart can be used in combination with various scenarios. It is important to keep in mind that costs can inflate if a project is quite small. For example, it would be more cost effective to have a plumber on a project site for larger project such as a complete kitchen including sink with dishwasher and two bathrooms which may take multiple days. Recognizing that this type of work might not be part of the plan or budget you will pay a premium for a plumber to install a short run (piping) for a small reroute of a sink. This chart is only to serve as a guide to help develop the idea of costs that may be incurred when developing child care in one's home.

TABLE 2. INITIAL COSTS FOR ASSOCIATED WITH CHILDCARE FACILITY IN A HOME

	Renovation		Addition**	
	High	Low	High***	Low
Building cost per sf	\$57.63/SF	\$17.96/SF	\$203.44/SF	\$162.07/SF
Building cost including contingency*	\$68.39/SF	\$18.86/SF	\$223.78/SF	\$170.17/SF
210 sf	\$13,312.53	\$3,960.18	\$51,470.32	\$39,139.91
Allowance site	\$17,062	\$8,796	\$17,062	\$8,796
Allowance Startup	\$60,000	\$12,000	\$60,000	\$12,000
Project Total	\$90,374.53	\$24,756.18	\$128,532.32	\$59,935.91

*Maximum contingency factor is 10% and minimum contingency factor is 5%

**Addition assumes a 150NSF living space

***Includes small residential bathroom

CONSTRUCTION SCENARIOS

The following scenarios are not representing actual projects but are developed to demonstrate potential considerations that can impact project costs.

NEW COMMERCIAL CONSTRUCTION

SCENARIO 1 LOW

The location of this project is in a community where the cost of living and wages are less, such as an area of Hilo. The building design is simple without much articulation to the building footprint. The method of construction is sound and worth the investment. The example represented above uses tilt up concrete panels with steel joists and would be constructed in an area where the cost of labor is less, such as Hilo. The contingency used is 5%, as all of the proper planning has occurred and there is minimal risk associated with the project. The site has minimal risk and is in a developed location where utilities are easily obtained and there is a



comprehensive community plan to environmental features such as water and erosion. The site would have pre-site work associated with it because water flows and utilities are roughed in to support development of a building. Features that support the use of the site to consider for a care center are vegetation to provide shade on the playground, natural breeze to eliminate need of air-conditioning and require minimal development of the site such as minimal length for the driveway access to parking. Providing care for less children also minimizes costs incurred with startup. Scenario represents the potential minimum cost of \$1,353,642.53.

SCENARIO 2 HIGH

The location of this project is in a community where the cost of living and wages are more, such as an area of Honolulu. The building design is more elaborate with high end finishes. The selection of materials used may develop through personal interest in high design or desire to support a sustainable and long-lasting building to eliminate long term operational costs. The exterior wall construction would be brick veneer with wood frame construction. This facility would include the use of environmentally sustainable and green practices such as photo-voltaic or on-site wind turbine for energy. The building design is oriented to eliminate heavy



use of HVAC and make best use of solar orientation. Building materials might have a longer tenure eliminating the long-term operational burden of the building occupant. Site considerations that would require larger construction budget include the utilization of an undeveloped piece of property that requires extensive site infrastructures. These infrastructures may include a long run of utilities, a long driveway, on-site water management system, extensive site grading or landscape management such as the removal of trees. An increased contingency budget of 10% is considered because of the unknowns associated with the site and the use of new and innovative technology and design. There is an interest to accommodate the maximum number of children per square foot will also increase the cost incurred with startup. Scenario represents the potential maximum cost of \$1,646,395.90.

MAJOR COMMERCIAL RENOVATION

SCENARIO 1 LOW

The location of this project is in a community where the cost of living and wages are less, such as an area of Hilo. The renovation would exist within an environment that supports occupancy but is not setup specifically to support childcare. Renovation may need to include upgrades to have the appropriate number of windows, appropriate building access for parent drop off, and safe controlled access to a playground although there are still an adequate amount for occupancy. It would be assumed that there might be minor modification to layout providing some changes to the interior walls.



Fixtures that would be appropriate for a childcare environment might include bathroom fixtures, kitchenette, changing stations and washer and dryer. This scenario would assume there is adequate access for dropoff and pickup but a safe and secure playground space is to be installed. Since most of the work associated with occupancy is complete a 5% contingency could support the scope of work associated with this project. Providing care for less children also minimizes costs incurred with startup. Scenario represents the potential minimum cost of \$886,466.34.

SCENARIO 2 HIGH

The location of this project is in a community where the cost of living and wages are higher, such as an area of Honolulu. The environment of this building will have basic infrastructure to include wall framing, roof and site development that includes utilities, environmental and driveway/parking but is not set up for occupancy for a child care center. To visualize this scenario the image provided might be something found in a retail space such as a shopping center that does not have interior finish material, fixtures, or appropriate access to natural light. The access to the exterior may not currently support the use as a child care



facility. The interior scope of work would require windows or clerestory windows to accommodate natural light, finishes, plumbing and electrical fixtures to support a child care environment and doors to support safety and security for drop off and playground access. Site development would include playground and modifications to support safe children pickup/dropoff. Due to the extent of work a 10% contingency should be developed to support any unknown factors that might occur during construction. There is an interest to accommodate the maximum number of children per square foot will also increase the cost incurred with startup. Scenario represents the potential maximum cost of \$1,134,68.22.

MINOR COMMERCIAL RENOVATION

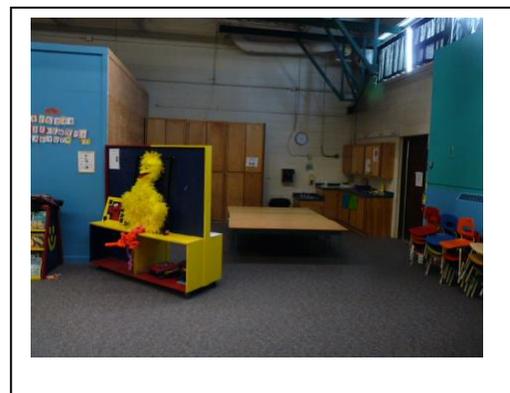
SCENARIO 1 LOW

The location of this project is in a community where the cost of living and wages are less, such as an area of Hilo. The finishes are in good condition with appropriate fenestration; therefore, the facility will only need updated paint and installation of fixtures to support the childcare environment. The space should adequately support the layout and not require modification to interior walls. The site is well established to accommodate parent pickup and drop off and there is a playground space available but would require minor modification to support the size or demographic of student to use the space. Since there will be minor modification to the construction a 5% contingency would be adequate to support the minimal amount of work. Providing care for less children also minimizes costs incurred with startup. Scenario represents the potential minimum cost of \$361,541.94.



SCENARIO 2 HIGH

The location of this project is in a community where the cost of living and wages are more such as an area of Honolulu. The renovation would require significant work to the finishes recognizing that the existing materials have reached their life expectancy. There might be some updates to the bathroom or kitchen fixtures to support the child care environment. There is potential to install some updated windows due to the age or quality of the existing ones. The renovation should not require modification to the space layout. It would be assumed that the parent pickup and drop off areas support the care facility but there might be more work to setup a playground space such as need for fencing and updated play equipment. Existing conditions may be unknown, and the age of the building might cause concern such as contaminants, the roof, or HVAC system. Many of these conditions will be better understood after demolition and project

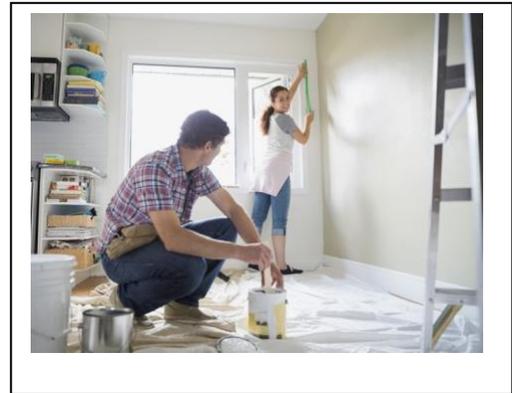


preparation. A 10% contingency would be most appropriate in this scenario. The interest in this scenario is to provide childcare for the maximum number of students, therefore, increasing start-up costs. This scenario represents the potential maximum cost of \$576,077.82.

RESIDENTIAL RENOVATION

SCENARIO 1 LOW

This scenario assumes that the child care business owner will be using their existing home to support child care up to six children. The location for this project is in an area of Hilo or similar. The home assumes that there is adequate dedicated child care space and only assumes updates to finishes. The finish work would include paint and flooring. Natural light is important in care environments therefore new blinds are assumed to help control the natural light with potential change in light fixtures. Safety and security is utmost important therefore this project assumes new fire and safety equipment including smoke and carbon detector alarm systems. There is assumed that there will be some modifications to the site to accommodate safe play including a residential fence, new sod, shade device such as shrubbery. There is allowance for outdoor play equipment. The average cost to this home modification could be \$24,756.18.



SCENARIO 2 HIGH

This scenario assumes that the child care business owner is using their own home but it is not necessarily supportive of an efficient or safe environment to accommodate care for six children. The location for this project is in an area of Honolulu or similar. The existing space assumes that there is adequate space for childcare and all the renovation can be accommodated within the existing space. The renovation assumes that an existing bathroom will need to be updated to accommodate young children. Modification to an existing kitchen which may include the installation of a dishwasher, new sink and countertops. Finishes will need to be updated in the bathroom, kitchen and occupied space of the child care. Finishes include fresh paint, carpeting and vinyl flooring. With this form of update there is the assumption to update some electrical along with an allowance to accommodate some new lights and outlets. Safety and security is utmost important therefore this project assumes new fire and safety equipment including smoke and carbon detector alarm systems. The site may require extensive work and interest in high quality play equipment. The budget would assume site work to



develop a level grass play surface, aesthetically pleasing fence, wood pergola shade structure with patio and high quality play equipment. The average cost to this home modification could be \$90,374.53.

RESIDENTIAL RENOVATION WITH ADDITION

SCENARIO I LOW

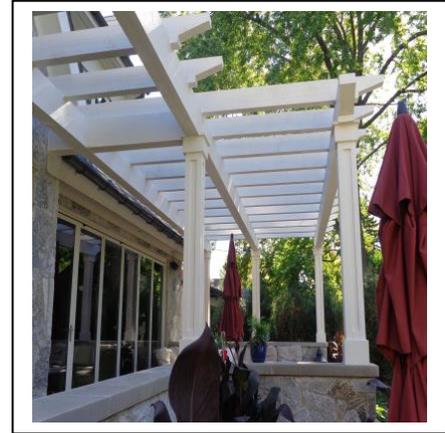
This scenario assumes that one would use their existing home in an area such as Hilo but there is interest to construct an addition to one's home to provide some additional designated space for care such as a sleeping room or activity space. There is an assumption that there is some designated space in the existing home to support care of these six children therefore only 150 square feet of living space is needed. This addition also assumes that there is easy access into the home to support the addition such as that found at a patio door with a site that is not heavily sloped or vegetated. The home does have adequate bathroom and kitchen space therefore there is no need to modify or install kitchen or bathroom spaces. The original home's child care location would need minor updates to finishes including paint, carpeting and blinds. Safety and security are utmost important therefore this project assumes new fire and safety equipment including smoke and carbon detector systems. It is assumed that there will be some modifications to the site to accommodate safe play including a residential fence, new sod, shade device such as shrubbery. There is allowance for outdoor play equipment. The average cost for this home addition could be \$59,935.91.



It would be suggested to add half the renovation budget to allow for disruption that has occurred with the existing home of \$1,980 therefore the project cost could be \$61,920.

SCENARIO 2 HIGH

This scenario assumes that one would use their existing home in an area such as Honolulu to care for six children but requires an addition to provide additional support to the care environment. This scenario considers an additional 150 square feet for living/care space and a small bathroom to provide additional support to the home. The addition's location may require a new opening to provide access into the addition. The site for the addition may require additional efforts since its soil condition may not be conducive to development, heavily sloped &/or vegetated. The existing interior may require extensive work to the kitchen to provide a safe and efficient environment. Accommodating a heavily renovated kitchen with new sink/faucet, new dishwasher, counter, paint and flooring. The care space that is a part of the original home will require new paint, flooring, light fixtures with allowance for electrical work. Safety and security are utmost important therefore this project assumes new fire and safety equipment including smoke and carbon detector systems.



The site may require extensive work and interest in high quality play equipment. The budget would assume site work to develop a level grass play surface, aesthetically pleasing fence, wood pergola shade structure with patio and high-quality play equipment. The average cost for this home addition could be \$128,532.32. It would be suggested to add half the renovation budget to allow for disruption that has occurred with the existing home of \$6,656.27 therefore the project cost could be \$135,190.

ANNUAL OPERATIONS COST

There are multiple variables to consider when determining annual operations costs. One of the primary drivers of cost is the number of children receiving care. When a facility has more children, it is possible to create a cost efficiency. The information portrayed in this analysis represents costs for the care of one child but assumes the economies gained when caring for 5 children.

STAFFING COSTS

Staffing costs can vary widely. Using the Bureau of Labor Statistics salary data from the Hawaii Preschool Development Grant Birth to Five Program, an estimation of staff costs is displayed in the Table 3. The low and high figures represent the 25th and the 75th percentile of salary costs in Hawaii. Actual salaries will vary based on location and provider preference. The cost of benefits is in addition to the base salary and typically will need to be added for every employee.

TABLE 3. SALARY AND BENEFITS

	Low 25th Percentile	High 75th Percentile
Director	\$44,090	\$68,630
Teacher	\$33,330	\$45,900
Teacher Assistant	\$25,510	\$35,030
Child Worker	\$21,020	\$29,300
Average	\$30,988	\$44,715
Benefits Cost per Employee (28.2%)	\$8,738	\$12,610

In accordance with DHS guidelines, specific staffing requirements are in place based on the age of children receiving care. Table 4 displays examples of staffing configurations based on minimum DHS requirements with 8-hours of operation. Employers may need to increase staffing for scheduled breaks, additional hours of operation, or other reasons that meet the need of individual providers.

TABLE 4. STAFFING SALARIES BASED ON MINIMUM DHS GUIDELINES

Classroom Age Range	Number of Classrooms	Number of Staff	Staffing Configuration	Low Staff Cost*	High Staff Cost**
Infant toddler 6 weeks to 12 months					
24 students	4	8	4 Teachers, 2 Teacher Assistants, and 2 Child Workers	\$226,380	\$312,260
35 students	5	10	5 Teachers, 2 Teacher Assistants, and 3 Child Workers	\$280,730	\$387,460
12 months to 24 months					
24 students	3	6	3 Teachers, 1 Teacher Assistant, and 2 Child Workers	\$167,540	\$231,330
35 students	4	8	4 Teachers, 2 Teacher Assistants, and 2 Child Workers	\$226,380	\$312,260

18 months to 3 years old					
24 students	2	4	2 Teachers, 1 Teacher Assistant, and 1 Child Worker	\$113,190	\$156,130
35 students	3	6	3 Teachers, 1 Teacher Assistant, and 2 Child Workers	\$167,540	\$231,330
2 years old					
24 students	1+	3	1 Teacher, 1 Teacher Assistant, and 1 Child Worker	\$79,860	\$110,230
35 students	2	5	2 Teachers, 1 Teacher Assistant, and 2 Child Workers	\$134,210	\$185,430
3 years old					
24 students	1+	2	2 Teachers	\$66,660	\$91,800
35 students	2+	3	2 Teachers, 1 Teacher Assistant	\$92,170	\$126,830
4 years old					
24 students	1+	2	2 Teachers	\$66,660	\$91,800
35 students	2+	3	2 Teachers, 1 Teacher Assistant	\$92,170	\$117,310
5 years old					
24 students	1+	2	1 Teachers, 1 Teacher Assistant	\$58,840	\$71,410
35 students	2+	3	2 Teachers, 1 Teacher Assistant	\$92,170	\$117,310

*Benefits are an estimated additional cost of \$8,738 per employee

**Benefits are an estimated additional cost of \$12,610 per employee

The typical provider offers hours of operation that are longer than eight hours per day, to accommodate parent pick-up and drop off. Table 5 provides an example of mixed-age classrooms at a facility that provides 10 to 11 hours of care each day.

TABLE 5. STAFFING APPLICATION CHART

Classroom Age Range	Number of Classrooms	Number of Staff	Staffing Configuration	Low Staff Cost	High Staff Cost
3-4 years old (7am - 5pm)					
20 students	1+	2 at all times	2 Head Teacher/Director, 1 Teacher, 0.75 Teacher Assistant, 0.75 Child Worker (Teacher Aide)	\$156,408	\$231,408
3-5 years old (6:30am - 5:30pm)					
30 students	1+	3 at all times	1 Head Teacher/Director, 1 Assistant Teacher, 1 Teacher Aide, and 0.5 Child Worker (Afternoon Aide)	\$101,130	\$147,610
30 students	1+	3 at all times	1 Head Teacher/Director, 2 Assistant Teachers, and 0.5 Child Worker (Afternoon Aide)	\$105,620	\$153,340

OPERATIONAL COSTS

Operational costs also include non-personnel expenses that often include occupancy, office and administration, and classroom materials and food items. National averages for child care expenses were identified and then adjusted for index factor city of Hilo, representing the low cost, and the city of Honolulu

representing the high cost.⁶ As displayed in the table below, a childcare facility can have non-personnel costs between \$79,986.74 and \$179,728.81 to provide care for 24 to 35 children. It is possible for non-personnel costs to be higher or lower, depending on the strategic goals of the business. Costs could be lower by working to create partnerships to reduce the cost of rent or by participating in the Hawaii School Meals Program. Costs could be higher if the facility offers specialized care or programs with a specialty curriculum.

TABLE 6. ANNUAL OPERATION COSTS

Annual Operational Expenses	Hawaii low (116.3)	Hawaii Minimum Residential facility with 6 children	Hawaii low 1,200sf facility with 24 children/ 4 staff	Hawaii low 1,200sf facility with 35 children/ 6 staff	Hawaii high (118.9)	Hawaii Maximum Residential Facility with 6 children	Hawaii high 1,200sf facility with 24 children/ 4 staff	Hawaii high 1,200sf facility with 35 children/6 staff
Occupancy (per square foot)								
Rent	\$15.00	N/A	\$18,000.00	\$18,000.00	\$72.00	N/A	\$86,400.00	\$86,400.00
Utilities	\$2.66	N/A	\$3,195.73	\$3,195.73	\$2.72	N/A	\$3,267.18	\$3,267.18
Building insurance	\$1.63	N/A	\$1,955.38	\$1,955.38	\$1.67	N/A	\$1,999.10	\$1,999.10
Maintenance, repairs, and/or cleaning	\$3.47	N/A	\$4,158.83	\$4,158.83	\$3.54	N/A	\$4,251.81	\$4,251.81
Office and Administration (per child unless otherwise noted)								
Office supplies, equipment, insurance, etc.	\$214.01	\$1,284.06	\$5,136.24	\$7,490.35	\$218.81	\$1,312.86	\$5,251.44	\$7,658.35
Miscellaneous	\$18.24	\$109.44	\$437.77	\$638.42	\$18.65	\$111.89	\$447.56	\$652.69
Telephone and/or internet (per site)	\$1,751.09	\$1,751.09	\$1,751.09	\$1,751.09	\$1,790.23	\$1,790.23	\$1,790.23	\$1,790.23
Fees and/or permits (per site)	\$3,830.50	\$3,830.50	\$3,830.50	\$3,830.50	\$3,916.14	\$3,916.14	\$3,916.14	\$3,916.14
Contribution to operating reserve (bad debt, enrollment efficiency, and/or profit)	\$875.49	\$1,046.26	\$5,769.83	\$6,153.05	\$891.57	\$1,069.67	\$16,098.52	\$16,490.32
Classroom materials and food (per child)								
Food and food prep	\$1,216.03	\$7,296.20	\$29,184.79	\$42,561.15	\$1,243.22	\$7,459.31	\$29,837.24	\$43,512.64
Kitchen supplies	\$60.80	\$364.81	\$1,459.24	\$2,128.06	\$62.16	\$372.97	\$1,491.86	\$2,175.63
Education supplies and equipment	\$182.40	\$1,094.43	\$4,377.72	\$6,384.17	\$186.48	\$1,118.90	\$4,475.59	\$6,526.90
Child assessment	\$30.40	\$182.40	\$729.62	\$1,064.03	\$31.08	\$186.48	\$745.93	\$1,087.82
Total Operational Expenses		\$16,959.19	\$79,986.74	\$99,310.75		\$17,338.45	\$159,972.59	\$179,728.81

⁶ Center for American Progress. 2018. *Methodology for 'Where Does Your Child Care Dollar Go?'* Retrieved on March 31 from: <https://cdn.americanprogress.org/content/uploads/2018/02/14040126/ChildcareDollar-Methodology.pdf>

Throughout the state of Hawaii, providers can apply to be reimbursed for some of all of the costs of the food that they provide for children in their care. Based on the Hawaii School Meals Programs 2019-2020 Reimbursement Rates, providers could receive up to \$2.15 per child for breakfast \$2.15/child, \$4.00 per child for lunch, \$1.10 per child for a snack, and \$0.22 per child for milk for each day of care.⁷

⁷ Hawaii Child Nutrition Programs. 2019. *Hawaii School Meals Programs*. Retrieved on March 31, 2020 from <https://hcnp.hawaii.gov/wp-content/uploads/2019/09/2019-2020-School-Programs-Reimbursement-Rates.pdf>

LEGAL DISCLAIMER

MGT's analysis of facilities and early childhood care and education relies on the accuracy of information provided by EOEL, DHS, Hawaii P-20, and other state agencies, service providers, and childcare providers as well as near-term and long-term assumptions influenced by factors outside of MGT's control and that may adversely impact early childhood care and education in the state of Hawaii. Changes, such as any to Hawaii's financial health and construction materials and costs, as well as state, local, and global economic conditions, may impact both the demand for the program, costs, and/or the project's financial feasibility. Additional risks to the Project plans include, but are not limited to, changes to program demand, competitive programs, regulatory changes, and general acts of disaster.

APPENDIX I: SQUARE FOOT COST ESTIMATES

DAY. CARE CENTER WITH BRICK VENEER/WOOD FRAME

RSMMeans data
from GORDIAN

Square Foot Cost Estimate
Report

Date: **3/20/2020**

Estimate Name:	Day Care Dec brick veneer with wood frame Honolulu	
Building Type:	Day Care Center with Brick Veneer / Wood Frame	
Location:	HONOLULU, HI	 <p>Costs are derived from a building model with basic components. Scope differences and market conditions can cause costs to vary significantly.</p>
Story Count:	1	
Story Height (L.F.):	12.00	
Floor Area (S.F.):	2000	
Labor Type:	OPN	
Basement Included:	No	
Data Release:	Year 2020	
Cost Per Square Foot:	\$290.85	
Building Cost:	\$581,703.11	

		% of Total	Cost Per S.F.	Cost
A	Substructure	11.87%	\$25.33	\$50,658.46
A1010	Standard Foundations		\$18.17	\$36,331.10
A10101051560	Foundation wall, CIP, 4' wall height, direct chute, .148 CY/LF, 7.2 PLF, 12" thick		\$11.44	\$22,889.90
A10101102700	Strip footing, concrete, reinforced, load 11.1 KLF, soil bearing capacity 6 KSF, 12" deep x 24" wide		\$6.44	\$12,888.99
A10102107200	Spread footings, 3000 PSI concrete, load 50K, soil bearing capacity 6 KSF, 3' - 0" square x 12" deep		\$0.28	\$552.21
A1030	Slab on Grade		\$6.80	\$13,607.36
A10301202220	Slab on grade, 4" thick, non industrial, non reinforced		\$6.80	\$13,607.36
A2010	Basement Excavation		\$0.36	\$720.00
A20101104560	Excavate and fill, 10,000 SF, 4' deep, sand, gravel, or common earth, on site storage		\$0.36	\$720.00
B	Shell	33.01%	\$70.46	\$140,916.05

B1010	Floor Construction	\$0.26	\$527.84
B10102102900	Wood column, 6" x 6", 20' x 25' bay, 12' unsupported height, 72 BF/MSF, 40 PSF total allowable load	\$0.07	\$139.67
B10102161450	Wood beam, 3 - 2 x 14, Douglas Fir No. 2, 243 lbs/LF @ 18' span	\$0.19	\$388.17
B1020	Roof Construction	\$9.39	\$18,784.62
B10202100890	Wood roof truss, 2' OC, 60' span, 4:12 pitch, 1' overhang, 5/8" sheathing, 1x8 fascia, R30 insulation	\$9.39	\$18,784.62
B2010	Exterior Walls	\$34.06	\$68,125.60
B20101291400	Brick veneer wall, standard face, 2x6 studs @ 16" back-up, running bond	\$34.06	\$68,125.60
B2020	Exterior Windows	\$13.08	\$26,152.99
B20202101150	Aluminum flush tube frame, for 1/4" glass, 1-3/4" x 4", 5' x 6' opening, 1 intermediate horizontal	\$8.68	\$17,359.37
B20202202000	Glazing panel, plate glass, 1/4" thick, clear	\$4.40	\$8,793.62
B2030	Exterior Doors	\$7.48	\$14,962.20
B20301106550	Door, aluminum & glass, without transom, full vision, double door, hardware, 6'-0" x 7'-0" opening	\$0.88	\$1,750.60
B20302203950	Door, steel 18 gauge, hollow metal, 1 door with frame, "A" label, 3'-0" x 7'-0" opening	\$6.61	\$13,211.60
B3010	Roof Coverings	\$6.18	\$12,362.80
B30101401100	Asphalt roofing, strip shingles, inorganic, Class A, 4" slope, 210-235 lbs/SQ	\$2.65	\$5,307.12
B30103201700	Insulation, rigid, roof deck, polyisocyanurate, 2#/CF, 3" thick	\$2.62	\$5,241.20
B30106100200	Gutters, box, aluminum, .032" thick, 5", enameled finish	\$0.83	\$1,667.49
B30106200200	Downspout, aluminum, rectangular, 2" x 3", enameled, .024" thick	\$0.07	\$146.99
C	Interiors	13.34%	\$28.48
C1010	Partitions	\$6.51	\$13,012.11

C10101241400	Wood partition, 5/8" fire rated gypsum board face, 1/4" sound deadening gypsum board, 2x4 @ 16" OC framing, same opposite face, 1.5" fiberglass insulation	\$6.51	\$13,012.11	
C1020	Interior Doors	\$4.22	\$8,448.68	
C10201022600	Door, single leaf, kd steel frame, hollow metal, commercial quality, flush, 3'-0" x 7'-0" x 1-3/8"	\$4.22	\$8,448.68	
C1030	Fittings	\$1.88	\$3,767.29	
C10301100460	Toilet partitions, cubicles, ceiling hung, stainless steel	\$0.55	\$1,106.93	
C10308300115	Cabinets, residential, base, hardwood, 1 top drawer & 1 door below x 24" W	\$1.33	\$2,660.36	
C3010	Wall Finishes	\$3.50	\$7,002.12	
C30102300080	Painting, interior on plaster and drywall, brushwork, primer & 2 coats	\$1.60	\$3,199.72	
C30102300080	Painting, interior on plaster and drywall, brushwork, primer & 2 coats	\$1.90	\$3,802.40	
C3020	Floor Finishes	\$4.44	\$8,877.43	
C30204101600	Vinyl, composition tile, maximum	\$3.45	\$6,906.69	
C30204101800	Tile, quarry tile, mud set, minimum	\$0.99	\$1,970.74	
C3030	Ceiling Finishes	\$7.92	\$15,844.76	
C30302106000	Acoustic ceilings, 3/4" fiberglass board, 24" x 48" tile, tee grid, suspended support	\$7.92	\$15,844.76	
D	Services	39.24%	\$83.76	\$167,511.48
D2010	Plumbing Fixtures	\$30.43	\$60,862.26	
D20101101880	Water closet, vitreous china, tank type, wall hung, close coupled 2 piece	\$2.56	\$5,129.78	
D20101102080	Water closet, vitreous china, bowl only with flush valve, wall hung	\$7.17	\$14,333.72	
D20101102080	Water closet, vitreous china, bowl only with flush valve, wall hung	\$7.92	\$15,838.76	
D20102102040	Urinal, vitreous china, stall type	\$0.41	\$824.24	

D20103101600	Lavatory w/trim, vanity top, PE on CI, 19" x 16" oval	\$2.54	\$5,079.69
D20104101720	Kitchen sink w/trim, countertop, PE on CI, 24" x 21", single bowl	\$5.51	\$11,015.42
D20104101960	Kitchen sink w/trim, countertop, stainless steel, 33" x 22" double bowl	\$2.32	\$4,635.08
D20104404260	Service sink w/trim, PE on CI, corner floor, 28" x 28", w/rim guard	\$0.58	\$1,159.08
D20105102080	Bathtub, recessed, PE on CI, mat bottom, 5' long	\$0.47	\$945.39
D20108201880	Water cooler, electric, wall hung, dual height, 14.3 GPH	\$0.95	\$1,901.10
D2020	Domestic Water Distribution	\$3.11	\$6,229.76
D20202401940	Electric water heater, commercial, 100< F rise, 120 gal, 36 KW 147 GPH	\$3.11	\$6,229.76
D3010	Energy Supply	\$12.05	\$24,107.58
D30105202000	Commercial building heating system, fin tube radiation, forced hot water, 10,000 SF, 100,000 CF, total 2 floors	\$12.05	\$24,107.58
D3050	Terminal & Package Units	\$13.14	\$26,272.55
D30501704120	Splt sys, air cooled condensing unit, schools and colleges, 10,000 SF, 38.33 ton	\$13.14	\$26,272.55
D4010	Sprinklers	\$3.68	\$7,365.22
D40104100620	Wet pipe sprinkler systems, steel, light hazard, 1 floor, 10,000 SF	\$3.68	\$7,365.22
D4020	Standpipes	\$1.00	\$2,008.53
D40203101540	Wet standpipe risers, class III, steel, black, sch 40, 4" diam pipe, 1 floor	\$1.00	\$2,008.53
D5010	Electrical Service/Distribution	\$6.32	\$12,647.64
D50101200280	Overhead service installation, includes breakers, metering, 20' conduit & wire, 3 phase, 4 wire, 120/208 V, 200 A	\$1.66	\$3,326.03
D50102300280	Feeder installation 600 V, including RGS conduit and XHHW wire, 200 A	\$1.26	\$2,518.73
D50102400200	Switchgear installation, incl switchboard, panels & circuit	\$3.40	\$6,802.88

	breaker, 120/208 V, 3 phase, 400 A			
D5020	Lighting and Branch Wiring		\$9.43	\$18,867.36
D50201100200	Receptacles incl plate, box, conduit, wire, 2.5 per 1000 SF, .3 watts per SF		\$2.12	\$4,236.96
D50201300200	Wall switches, 1.0 per 1000 SF		\$0.34	\$679.56
D50201350200	Miscellaneous power, to .5 watts		\$0.17	\$339.78
D50201400280	Central air conditioning power, 4 watts		\$0.72	\$1,435.20
D50202100520	Fluorescent fixtures recess mounted in ceiling, 1.6 watt per SF, 40 FC, 10 fixtures @32watt per 1000 SF		\$6.09	\$12,175.86
D5030	Communications and Security		\$4.47	\$8,940.19
D50309100452	Communication and alarm systems, fire detection, addressable, 25 detectors, includes outlets, boxes, conduit and wire		\$1.06	\$2,115.49
D50309100460	Fire alarm command center, addressable without voice, excl. wire & conduit		\$3.41	\$6,824.70
D5090	Other Electrical Systems		\$0.11	\$210.39
D50902100280	Generator sets, w/battery, charger, muffler and transfer switch, gas/gasoline operated, 3 phase, 4 wire, 277/480 V, 15 kW		\$0.11	\$210.39
E	Equipment & Furnishings	2.55%	\$5.45	\$10,899.68
E1020	Institutional Equipment		\$5.45	\$10,899.68
E10207300120	Architectural equipment, laboratory equipment, cabinets, base, drawer units		\$5.45	\$10,899.68
E1090	Other Equipment		\$0.00	\$0.00
F	Special Construction	0.00%	\$0.00	\$0.00
G	Building Sitework	0.00%	\$0.00	\$0.00
SubTotal		100%	\$213.47	\$426,938.06
Contractor Fees (General Conditions, Overhead, Profit)		25.0 %	\$53.37	\$106,734.52
Architectural Fees		9.0 %	\$24.02	\$48,030.53
User Fees		0.0 %	\$0.00	\$0.00
Total Building Cost			\$290.85	\$581,703.11

* Indicates Assemblies or Components have been customized.

DAY CARE CENTER W/ TILT UP CONCRETE PANELS/STEEL JOISTS

RSMMeans data
from GORDIAN

Square Foot Cost Estimate Report

Date: **3/25/2020**

Estimate Name:	day care new construction min
Building Type:	Day Care Center with Tilt-up Concrete Panels / Steel Joists
Location:	HILO, HI
Story Count:	1
Story Height (L.F.):	12.00
Floor Area (S.F.):	2000
Labor Type:	OPN
Basement Included:	No
Data Release:	Year 2020
Cost Per Square Foot:	\$259.12
Building Cost:	\$518,237.88



Costs are derived from a building model with basic components.
Scope differences and market conditions can cause costs to vary significantly.

		% of Total	Cost Per S.F.	Cost
A	Substructure	14.32%	\$27.23	\$54,467.86
A1010	Standard Foundations		\$19.68	\$39,364.18
A10101051560	Foundation wall, CIP, 4' wall height, direct chute, .148 CY/LF, 7.2 PLF, 12" thick		\$12.00	\$23,994.08
A10101102700	Strip footing, concrete, reinforced, load 11.1 KLF, soil bearing capacity 6 KSF, 12" deep x 24" wide		\$6.82	\$13,634.67
A10102107200	Spread footings, 3000 PSI concrete, load 50K, soil bearing capacity 6 KSF, 3' - 0" square x 12" deep		\$0.87	\$1,735.43
A1030	Slab on Grade		\$7.19	\$14,388.48
A10301202220	Slab on grade, 4" thick, non industrial, non reinforced		\$7.19	\$14,388.48
A2010	Basement Excavation		\$0.36	\$715.20
A20101104560	Excavate and fill, 10,000 SF, 4' deep, sand, gravel, or common earth, on site storage		\$0.36	\$715.20
B	Shell	31.40%	\$59.72	\$119,433.64
B1020	Roof Construction		\$12.31	\$24,612.64
B10201122100	Roof, steel joists, beams, 1.5" 22 ga metal deck, on columns, 20'x20' bay, 18" deep, 40 PSF superimposed load, 60 PSF total load		\$9.71	\$19,427.82

B10201122200	Roof, steel joists, beams, 1.5" 22 ga metal deck, on columns, 20'x20' bay, 18" deep, 40 PSF superimposed load, 60 PSF total load, add for column		\$2.59	\$5,184.82
B2010	Exterior Walls		\$17.92	\$35,849.81
B20101064400	Tilt-up concrete panels, exposed aggregate finish, 7- 1/2" thick, 3000 PSI		\$17.92	\$35,849.81
B2020	Exterior Windows		\$12.77	\$25,543.56
B20202101150	Aluminum flush tube frame, for 1/4" glass, 1-3/4"x4", 5'x6' opening, 1 intermediate horizontal		\$8.46	\$16,928.76
B20202202000	Glazing panel, plate glass, 1/4" thick, clear		\$4.31	\$8,614.80
B2030	Exterior Doors		\$7.23	\$14,464.62
B20301106550	Door, aluminum & glass, without transom, full vision, double door, hardware, 6'-0" x 7'-0" opening		\$0.85	\$1,701.74
B20302203950	Door, steel 18 gauge, hollow metal, 1 door with frame, "A" label, 3'-0" x 7'-0" opening		\$6.38	\$12,762.88
B3010	Roof Coverings		\$9.48	\$18,963.01
B30101202100	Roofing, single ply membrane, EPDM, 45 mils, loosely laid, stone ballast		\$1.86	\$3,728.58
B30103201700	Insulation, rigid, roof deck, polyisocyanurate, 2#/CF, 3" thick		\$2.38	\$4,752.48
B30104201400	Roof edges, aluminum, duranodic, .050" thick, 6" face		\$3.63	\$7,263.00
B30106305100	Gravel stop, aluminum, extruded, 4", mill finish, .050" thick		\$1.61	\$3,218.95
C	Interiors	11.85%	\$22.54	\$45,071.73
C1010	Partitions		\$3.34	\$6,671.85
C10101265400	Metal partition, 5/8" fire rated gypsum board face, no base, 3 - 5/8" @ 24" OC framing, same opposite face, no insulation		\$3.34	\$6,671.85
C1020	Interior Doors		\$3.85	\$7,693.77
C10201022600	Door, single leaf, kd steel frame, hollow metal, commercial quality, flush, 3'-0" x 7'-0" x 1-3/8"		\$3.85	\$7,693.77
C1030	Fittings		\$0.50	\$1,009.89

C10301100460	Toilet partitions, cubicles, ceiling hung, stainless steel	\$0.50	\$1,009.89	
C3010	Wall Finishes	\$3.43	\$6,854.01	
C30102300080	Painting, interior on plaster and drywall, brushwork, primer & 2 coats	\$1.57	\$3,132.04	
C30102300080	Painting, interior on plaster and drywall, brushwork, primer & 2 coats	\$1.86	\$3,721.97	
C3020	Floor Finishes	\$4.13	\$8,255.17	
C30204101600	Vinyl, composition tile, maximum	\$3.21	\$6,413.43	
C30204101800	Tile, quarry tile, mud set, minimum	\$0.92	\$1,841.74	
C3030	Ceiling Finishes	\$7.29	\$14,587.04	
C30302106000	Acoustic ceilings, 3/4" fiberglass board, 24" x 48" tile, tee grid, suspended support	\$7.29	\$14,587.04	
D	Services	39.56%	\$75.24	\$150,486.04
D2010	Plumbing Fixtures	\$18.38	\$36,753.12	
D20101102080	Water closet, vitreous china, bowl only with flush valve, wall hung	\$7.91	\$15,829.63	
D20102102040	Urinal, vitreous china, stall type	\$0.41	\$824.02	
D20103101600	Lavatory w/trim, vanity top, PE on CI, 19" x 16" oval	\$2.54	\$5,080.53	
D20104101720	Kitchen sink w/trim, countertop, PE on CI, 24" x 21", single bowl	\$5.51	\$11,015.39	
D20104404260	Service sink w/trim, PE on CI, corner floor, 28" x 28", w/rim guard	\$0.58	\$1,158.57	
D20105102080	Bathtub, recessed, PE on CI, mat bottom, 5' long	\$0.47	\$944.99	
D20108201880	Water cooler, electric, wall hung, dual height, 14.3 GPH	\$0.95	\$1,899.99	
D2020	Domestic Water Distribution	\$3.11	\$6,224.62	
D20202401940	Electric water heater, commercial, 100< F rise, 120 gal, 36 KW 147 GPH	\$3.11	\$6,224.62	
D2040	Rain Water Drainage	\$3.69	\$7,372.01	
D20402102040	Roof drain, DWV PVC, 4" diam, diam, 10' high	\$3.48	\$6,959.43	
D20402102080	Roof drain, DWV PVC, 4" diam, for each additional foot add	\$0.21	\$412.58	
D3010	Energy Supply	\$12.05	\$24,106.54	
D30105202000	Commercial building heating system, fin tube radiation,	\$12.05	\$24,106.54	

	forced hot water, 10,000 SF, 100,000 CF, total 2 floors		
D3050	Terminal & Package Units	\$13.14	\$26,276.45
D30501704120	Splt sys, air cooled condensing unit, schools and colleges, 10,000 SF, 38.33 ton	\$13.14	\$26,276.45
D4010	Sprinklers	\$3.68	\$7,364.96
D40104100620	Wet pipe sprinkler systems, steel, light hazard, 1 floor, 10,000 SF	\$3.68	\$7,364.96
D4020	Standpipes	\$1.00	\$2,007.79
D40203101540	Wet standpipe risers, class III, steel, black, sch 40, 4" diam pipe, 1 floor	\$1.00	\$2,007.79
D5010	Electrical Service/Distribution	\$6.27	\$12,530.38
D50101200280	Overhead service installation, includes breakers, metering, 20' conduit & wire, 3 phase, 4 wire, 120/208 V, 200 A	\$1.65	\$3,305.45
D50102300280	Feeder installation 600 V, including RGS conduit and XHHW wire, 200 A	\$1.25	\$2,501.53
D50102400200	Switchgear installation, incl switchboard, panels & circuit breaker, 120/208 V, 3 phase, 400 A	\$3.36	\$6,723.40
D5020	Lighting and Branch Wiring	\$9.40	\$18,799.90
D50201100200	Receptacles incl plate, box, conduit, wire, 2.5 per 1000 SF, .3 watts per SF	\$2.11	\$4,225.70
D50201300200	Wall switches, 1.0 per 1000 SF	\$0.34	\$677.96
D50201350200	Miscellaneous power, to .5 watts	\$0.17	\$338.98
D50201400280	Central air conditioning power, 4 watts	\$0.71	\$1,429.20
D50202100520	Fluorescent fixtures recess mounted in ceiling, 1.6 watt per SF, 40 FC, 10 fixtures @32watt per 1000 SF	\$6.06	\$12,128.06
D5030	Communications and Security	\$4.42	\$8,842.59
D50309100452	Communication and alarm systems, fire detection, addressable, 25 detectors, includes outlets, boxes, conduit and wire	\$1.05	\$2,102.26
D50309100460	Fire alarm command center, addressable without voice, excl. wire & conduit	\$3.37	\$6,740.33

D5090	Other Electrical Systems		\$0.10	\$207.68
D50902100280	Generator sets, w/battery, charger, muffler and transfer switch, gas/gasoline operated, 3 phase, 4 wire, 277/480 V, 15 kW		\$0.10	\$207.68
E	Equipment & Furnishings	2.87%	\$5.45	\$10,898.81
E1020	Institutional Equipment		\$5.45	\$10,898.81
E10207300120	Architectural equipment, laboratory equipment, cabinets, base, drawer units		\$5.45	\$10,898.81
E1090	Other Equipment		\$0.00	\$0.00
F	Special Construction	0.00%	\$0.00	\$0.00
G	Building Sitework	0.00%	\$0.00	\$0.00
SubTotal		100%	\$190.18	\$380,358.08
Contractor Fees (General Conditions,Overhead,Profit)		25.0 %	\$47.54	\$95,089.52
Architectural Fees		9.0 %	\$21.40	\$42,790.28
User Fees		0.0 %	\$0.00	\$0.00
Total Building Cost			\$259.12	\$518,237.88

* Indicates Assemblies or Components have been customized.

APPENDIX 2: SITEWORK

		Building Sitework		Renovation Sitework	
		max	min	max	min
G20409901200	1-Story Building Site Preparation	\$35,452.33	\$35,452.33		
G20409901202	1-Story Building Utilities	\$180,924.50	\$150,924.50		
G20409901204	1-Story Building Pavement	\$310,100.20	\$210,100.20	\$155,050.10	\$105,050.10
G20409901206	1-Story Building Stormwater Management	\$250,548.90	\$224,548.90		
G20409901208	1-Story Building Sidewalks	\$23,297.66	\$13,297.66		
G20409901210	1-Story Building Lighting	\$62,405.50	\$56,164.95		
G20409901212	1-story Building Landscaping include budget for playground Fence, chain link, 1-5/8"	\$112,296.81	83001.99	\$112,296.81	83001.99
G20401051650	post, 1-3/8" rail, 9 ga vinyl covered wire, 4' high @\$17.69 lf	\$4,975.31	\$3,980.25	\$4,975.31	\$3,980.25
Total		\$980,001.21	\$777,470.78	\$272,322.22	\$192,032.34

APPENDIX 3: BUDGET ESTIMATE FORMULA – RENOVATION

Square Foot Cost Estimate Report

Date: **4/1/2020**

Estimate Name:	Major Reno Honolulu
Building Type:	School Elementary Reno with Level 5 plus Equip, Ext Doors & Windows
Location:	HONOLULU, HI
Story Count:	1
Story Height (L.F.):	15.00
Floor Area (S.F.):	1200
Labor Type:	RR
Basement Included:	No
Data Release:	Year 2020
Cost Per Square Foot:	\$164.67
Building Cost:	\$197,602.10

Costs are derived from a building model with basic components.
Scope differences and market conditions can cause costs to vary significantly.

		% of Total	Cost Per S.F.	Cost
B	Shell	19.67%	\$22.01	\$26,408.14
B2020	Exterior Windows		\$20.53	\$24,636.62
B20201066550	Windows, aluminum, awning, insulated glass, 4'-5" x 5'-3"		\$10.68	\$12,812.10
B20202101250	Aluminum flush tube frame, for 1/4" glass, 1-3/4"x4", 5'x20' opening, three intermediate horizontals		\$4.16	\$4,993.64
B20202201400	Glazing panel, insulating, 1" thick units, 2 lites, 1/4" float glass, clear		\$5.69	\$6,830.88
B2030	Exterior Doors		\$1.15	\$1,374.06
B20301106950	Door, aluminum & glass, with transom, narrow stile, double door, hardware, 6'-0" x 10'-0" opening		\$0.82	\$978.92
B20302203450	Door, steel 18 gauge, hollow metal, 1 door with frame, no label, 3'-0" x 7'-0" opening		\$0.33	\$395.15

B3020	Roof Openings		\$0.33	\$397.45
B30202100300	Roof hatch, with curb, 1" fiberglass insulation, 2'-6" x 3'-0", galvanized steel, 165 lbs		\$0.15	\$180.26
B30202102100	Smoke hatch, unlabeled, galvanized, 2'-6" x 3', not incl hand winch operator		\$0.18	\$217.19
C	Interiors	29.91%	\$33.47	\$40,162.53
C1010	Partitions		\$5.34	\$6,409.80
C10101265400	Metal partition, 5/8" fire rated gypsum board face, no base, 3 - 5/8" @ 24" OC framing, same opposite face, no insulation		\$2.51	\$3,010.86
C10101268000	Metal partition, 5/8" high abuse gypsum board face, no base layer, 3-5/8" @ 24" OC framing ,same opposite face, no insulation		\$0.78	\$940.77
C10101280700	Gypsum board, 1 face only, exterior sheathing, fire resistant, 5/8"		\$1.22	\$1,467.61
C10101280960	Add for the following: taping and finishing		\$0.83	\$990.57
C1020	Interior Doors		\$2.38	\$2,853.46
C10201022600	Door, single leaf, kd steel frame, hollow metal, commercial quality, flush, 3'-0" x 7'-0" x 1-3/8"		\$2.38	\$2,853.46
C1030	Fittings		\$1.77	\$2,124.46
C10301100400	Toilet partitions, cubicles, ceiling hung, painted metal		\$1.24	\$1,482.25
C10305200240	Chalkboards, liquid chalk type, aluminum frame & chalktrough		\$0.54	\$642.21
C3010	Wall Finishes		\$3.37	\$4,041.65
C30102300140	Painting, interior on plaster and drywall, walls & ceilings, roller work, primer & 2 coats		\$1.11	\$1,333.26
C30102300140	Painting, interior on plaster and drywall, walls & ceilings, roller work, primer & 2 coats		\$1.08	\$1,296.23
C30102301940	Ceramic tile, thin set, 4-1/4" x 4-1/4"		\$1.18	\$1,412.16
C3020	Floor Finishes		\$10.33	\$12,395.14
C30204100160	Carpet, tufted, nylon, roll goods, 12' wide, 36 oz		\$0.69	\$831.44

C30204100220	Carpet, padding, add to above, 2.7 density	\$0.15	\$180.99
C30204101120	Terrazzo, maximum	\$3.99	\$4,787.12
C30204101600	Vinyl, composition tile, maximum	\$2.41	\$2,892.89
C30204102160	Oak strip, sanded and finished, minimum	\$2.56	\$3,072.69
C30204102340	Underlayment, plywood, 3/8" thick	\$0.53	\$630.02
C3030	Ceiling Finishes	\$10.28	\$12,338.02
C30302107400	Acoustic ceilings, 3/4" mineral fiber, 12" x 12" tile, concealed 2" bar & channel grid, suspended support	\$10.28	\$12,338.02
D	Services	41.12%	\$46.01
D2017	Plumbing Fixture Renovation	\$3.25	\$3,900.32
D20172401100	Water closet, vitreous china, tank type, wall hung	\$0.77	\$919.41
D20172401150	Urinal, vitreous china, wall hung	\$0.30	\$354.17
D20172401240	Lavatory w/trim, wall hung, PE on CI, 20" x 18"	\$1.03	\$1,241.71
D20172401350	Kitchen sink w/trim, countertop, stainless steel, double bowl, 43" x 22"	\$0.23	\$275.31
D20172401580	Service sink w/trim, PE on CI, wall hung w/rim guard, 24" x 20"	\$0.07	\$83.32
D20172401740	Water cooler, electric, wall hung, Wheelchair type, 7.5 GPH	\$0.86	\$1,026.40
D2027	Domestic Water Distribution Renovation	\$0.62	\$747.05
D20272201180	Commercial, 100' < F rise, 300 MBH input, 278 GPH	\$0.62	\$747.05
D3017	Energy Supply Renovation	\$4.02	\$4,820.02
D30172151110	Heating system, fin tube radiation, forced hot water, 10,000 S.F., 100,000 C.F., 2 floors	\$4.02	\$4,820.02
D3057	Terminal & Package Unit Renovation	\$4.10	\$4,921.31
D30572701140	Split system, air cooled condensing unit, schools and colleges, 20,000 S.F., 76.66 ton	\$4.10	\$4,921.31
D4017	Sprinkler Renovation	\$1.11	\$1,330.28

D40172771150	Heads and branches, steel, light hazard, 1 floor, 50,000 S.F.	\$1.10	\$1,318.24
D40172771310	Detection and alarm, steel, light hazard, 1 floor, 50,000 S.F.	\$0.01	\$12.05
D5010	Electrical Service/Distribution	\$22.73	\$27,281.70
D50102400280	Switchgear installation, incl switchboard, panels & circuit breaker, 120/208 V, 3 phase, 800 A	\$22.73	\$27,281.70
D5027	Lighting and Branch Wiring Renovation	\$7.49	\$8,989.17
D50271101130	Incl plate, box, conduit, wire, 8 per 1,000 S.F., .9 watts per S.F.	\$1.46	\$1,746.11
D50271101200	Receptacles, transformer, .9 w per S.F.	\$0.67	\$798.66
D50272101120	Wall switches, finish work, 2.0 per 1000 S.F.	\$0.31	\$368.21
D50273101140	Recess mounted in ceiling, 1.6 watt per S.F., 40 FC, 10 fixtures @ 32 watts per 1,000 S.F.	\$5.06	\$6,076.20
D5030	Communications and Security	\$0.32	\$382.19
D50309100462	Fire alarm command center, addressable with voice, excl. wire & conduit	\$0.32	\$382.19
D5037	Communications and Security Renovation	\$2.37	\$2,844.09
D50374101210	Sound systems, monitor panel, antenna AM/FM, amplifier, and cabinets	\$0.09	\$103.55
D50374101230	Sound systems, includes outlets, boxes, conduit and wire, 12 outlets	\$0.14	\$166.40
D50374101290	Master clock systems, includes outlets, boxes, conduit and wire, 10 rooms	\$0.16	\$194.37
D50374101340	Master TV antenna systems, sound system, components, antenna AM/FM	\$0.01	\$11.73
D50374101360	Master TV antenna systems, includes outlets, boxes, conduit and wire, 12 outlets	\$0.18	\$214.09
D50374101430	Fire detection, addressable, includes outlets, boxes, conduit and wire, 100 detectors	\$1.56	\$1,872.38
D50374151110	Internet wiring, 2 data/voice outlets per 1000 S.F.	\$0.17	\$204.20

D50374151150	Internet wiring, patch panel, 2 data/voice outlets per 1000 S.F.		\$0.06	\$77.36
E	Equipment & Furnishings	0.00%	\$0.00	\$0.00
E1090	Other Equipment		\$0.00	\$0.00
F	Special Construction	9.31%	\$10.42	\$12,499.39
F2010	Building Elements Demolition		\$10.42	\$12,499.39
F20102101130	Demolition, windows, aluminum, to 25 S.F.		\$0.81	\$973.76
F20102121130	Window demolition, by SF, Aluminum, to 100 S.F.		\$0.27	\$323.51
F20102201120	Demolition, single door, 3'-0" x 7' to 10' opening, metal frame		\$0.05	\$55.62
F20102201160	Demolition, double door, 6'-0" x 7' to 10' opening, metal frame		\$0.08	\$101.12
F20102201290	Demolition, interior, single leaf, 3'-0" x 7'-0" x 1-3/8", metal frame		\$0.05	\$60.94
F20102401110	Hatch Demolition, roof hatch, metal, 2'-6" x 3'-0"		\$0.04	\$46.01
F20102501110	Demolition, non-masonry, wood or metal studs		\$0.46	\$554.58
F20104201100	Demolition, wall mounted, boards and panels		\$0.31	\$366.88
F20104301150	Demolition, toilet partition, ceiling hung or floor mounted		\$0.04	\$45.50
F20104501110	Demolition, scraping and clean up, hand carry 0-100', carpet		\$0.05	\$62.57
F20104501120	Demolition, Scraping and clean up, hand carry 0-100', carpet pad		\$0.04	\$48.35
F20104501160	Demolition, composition flooring, terrazzo		\$0.23	\$277.33
F20104501180	Demolition, vinyl composite tile		\$0.96	\$1,152.08
F20104501200	Demolition, Ceramic or porcelain tile, strip flooring, wood		\$0.12	\$147.89
F20104501210	Demolition, underlayment, plywood		\$0.09	\$105.23
F20104601170	Demolition, acoustic ceiling system, grid and tiles		\$0.50	\$597.24
F20104701100	Demolition, wall covering, ceramic tile, thin set		\$0.05	\$54.04
F20106101110	Demolition, water closet, wall hung		\$0.07	\$86.03

F20106101130	Demolition, water cooler, wall or deck mounted	\$0.04	\$45.79
F20106101140	Demolition, lavatory, countertop	\$0.01	\$6.83
F20106101170	Demolition, lavatory, wall hung	\$0.04	\$49.75
F20106201130	Demolition, water heater, 50 thru 120 gallons	\$0.01	\$9.56
F20106351110	Demolition, heating systems, fin tube radiation, forced hot water, 10,000 S.F., 100,000 C.F., 2 floors	\$2.68	\$3,213.72
F20106851140	Demolition, air cooled condensing unit, schools and colleges, 20,000 S.F., 76.66 ton	\$1.32	\$1,578.42
F20106901120	Demolition, Heads and branches, steel, light hazard, 1 floor, 2,000 S.F.	\$0.00	\$0.02
F20106901150	Demolition, Heads and branches, steel, light hazard, 1 floor, 50,000 S.F.	\$0.04	\$47.07
F20106901270	Demolition, Detection and alarm, steel, light hazard, 1 floor, 50,000 S.F.	\$0.00	\$0.43
F20107101140	Demolition, Installation, incl switchboard, panels and circuit breaker, 120/208 V, 1 phase, 800 A	\$1.72	\$2,061.90
F20107201130	Demolition, Incl plate, box, conduit, wire, 8 per 1,000 S.F., .9 watts per S.F.	\$0.02	\$28.44
F20107201220	Demolition, Phase 1, transformer, .9 watts per S.F., 1 kVA	\$0.08	\$99.54
F20107301120	Demolition, Wall switches, finish work, 2.0 per 1000 S.F.	\$0.00	\$4.55
F20107351140	Demolition, Recess mounted in ceiling, 1.6 watt per S.F., 40 FC, 10 fixtures @ 32 watts per 1,000 S.F.	\$0.22	\$261.65
F20107551210	Demolition, sound systems, monitor panel, antenna AM/FM, amplifier, and cabinets	\$0.00	\$0.36
F20107551230	Demolition, sound systems, includes outlets, boxes, conduit and wire, 12 outlets	\$0.00	\$0.00

F20107551290	Demolition, master clock systems, includes outlets, boxes, conduit and wire, 10 rooms	\$0.00	\$2.99
F20107551340	Demolition, master TV antenna systems, sound system, components, antenna AM/FM	\$0.00	\$1.79
F20107551360	Demolition, master TV antenna systems, includes outlets, boxes, conduit and wire, 12 outlets	\$0.00	\$3.85
F20107551430	Demolition, fire detection, addressable, includes outlets, boxes, conduit and wire, 100 detectors	\$0.01	\$14.42
F20107551450	Demolition, fire alarm & command center, excludes conduit and wire, addressable with voice	\$0.00	\$1.72
F20107601110	Demolition, internet wiring, 2 data/voice outlets per 1000 S.F.	\$0.00	\$3.46
F20107601150	Demolition, internet wiring, patch panel, 8 data/voice outlets per 1000 S.F.	\$0.00	\$4.48
G	Building Sitework	0.00%	\$0.00

SubTotal	100%	\$111.91	\$134,286.17
Contractor Fees (General Conditions,Overhead,Profit)	35.0 %	\$39.17	\$47,000.16
Architectural Fees	9.0 %	\$13.60	\$16,315.77
User Fees	0.0 %	\$0.00	\$0.00
Total Building Cost		\$164.67	\$197,602.10

* Indicates Assemblies or Components have been customized.

Square Foot Cost Estimate Report

Date: **4/1/2020**

Estimate Name:	Major Reno Hilo	
Building Type:	School Elementary Reno with Level 5 plus Equip, Ext Doors & Windows	
Location:	HILO, HI	
Story Count:	1	
Story Height (L.F.):	15.00	
Floor Area (S.F.):	1200	
Labor Type:	RR	
Basement Included:	No	
Data Release:	Year 2020	
Cost Per Square Foot:	\$161.21	Costs are derived from a building model with basic components. Scope differences and market conditions can cause costs to vary significantly.
Building Cost:	\$193,450.51	

		% of Total	Cost Per S.F.	Cost
B	Shell	19.57%	\$21.44	\$25,730.08
B2020	Exterior Windows		\$20.03	\$24,036.89
B20201066550	Windows, aluminum, awning, insulated glass, 4'-5" x 5'-3"		\$10.38	\$12,459.63
B20202101250	Aluminum flush tube frame, for 1/4" glass, 1-3/4"x4", 5'x20' opening, three intermediate horizontals		\$4.07	\$4,884.77
B20202201400	Glazing panel, insulating, 1" thick units, 2 lites, 1/4" float glass, clear		\$5.58	\$6,692.49
B2030	Exterior Doors		\$1.11	\$1,335.06
B20301106950	Door, aluminum & glass, with transom, narrow stile, double door, hardware, 6'-0" x 10'-0" opening		\$0.79	\$953.06
B20302203450	Door, steel 18 gauge, hollow metal, 1 door with frame, no label, 3'-0" x 7'-0" opening		\$0.32	\$382.00
B3020	Roof Openings		\$0.30	\$358.13
B30202100300	Roof hatch, with curb, 1" fiberglass insulation, 2'-6" x 3'-0", galvanized steel, 165 lbs		\$0.14	\$162.41
B30202102100	Smoke hatch, unlabeled, galvanized, 2'-6" x 3', not incl hand winch operator		\$0.16	\$195.72
C	Interiors	29.22%	\$32.01	\$38,413.61
C1010	Partitions		\$5.19	\$6,223.41

C10101265400	Metal partition, 5/8" fire rated gypsum board face, no base, 3 -5/8" @ 24" OC framing, same opposite face, no insulation	\$2.44	\$2,929.01
C10101268000	Metal partition, 5/8" high abuse gypsum board face, no base layer, 3-5/8" @ 24" OC framing, same opposite face, no insulation	\$0.75	\$902.83
C10101280700	Gypsum board, 1 face only, exterior sheathing, fire resistant, 5/8"	\$1.17	\$1,408.79
C10101280960	Add for the following: taping and finishing	\$0.82	\$982.78
C1020	Interior Doors	\$2.18	\$2,610.92
C10201022600	Door, single leaf, kd steel frame, hollow metal, commercial quality, flush, 3'-0" x 7'-0" x 1-3/8"	\$2.18	\$2,610.92
C1030	Fittings	\$1.64	\$1,963.27
C10301100400	Toilet partitions, cubicles, ceiling hung, painted metal	\$1.15	\$1,379.79
C10305200240	Chalkboards, liquid chalk type, aluminum frame & chalktrough	\$0.49	\$583.48
C3010	Wall Finishes	\$3.27	\$3,922.55
C30102300140	Painting, interior on plaster and drywall, walls & ceilings, roller work, primer & 2 coats	\$1.08	\$1,300.53
C30102300140	Painting, interior on plaster and drywall, walls & ceilings, roller work, primer & 2 coats	\$1.05	\$1,264.40
C30102301940	Ceramic tile, thin set, 4-1/4" x 4-1/4"	\$1.13	\$1,357.62
C3020	Floor Finishes	\$9.85	\$11,825.54
C30204100160	Carpet, tufted, nylon, roll goods, 12' wide, 36 oz	\$0.63	\$757.68
C30204100220	Carpet, padding, add to above, 2.7 density	\$0.14	\$169.22
C30204101120	Terrazzo, maximum	\$3.89	\$4,662.77
C30204101600	Vinyl, composition tile, maximum	\$2.26	\$2,706.18
C30204102160	Oak strip, sanded and finished, minimum	\$2.45	\$2,937.04
C30204102340	Underlayment, plywood, 3/8" thick	\$0.49	\$592.65
C3030	Ceiling Finishes	\$9.89	\$11,867.92
C30302107400	Acoustic ceilings, 3/4" mineral fiber, 12" x 12" tile, concealed 2" bar & channel grid, suspended support	\$9.89	\$11,867.92
D	Services	41.71%	\$45.70
			\$54,834.40

D2017	Plumbing Fixture Renovation	\$3.25	\$3,899.18
D20172401100	Water closet, vitreous china, tank type, wall hung	\$0.77	\$919.18
D20172401150	Urinal, vitreous china, wall hung	\$0.30	\$354.22
D20172401240	Lavatory w/trim, wall hung, PE on CI, 20" x 18"	\$1.03	\$1,241.45
D20172401350	Kitchen sink w/trim, countertop, stainless steel, double bowl, 43" x 22"	\$0.23	\$275.16
D20172401580	Service sink w/trim, PE on CI, wall hung w/rim guard, 24" x 20"	\$0.07	\$83.28
D20172401740	Water cooler, electric, wall hung, Wheelchair type, 7.5 GPH	\$0.85	\$1,025.89
D2027	Domestic Water Distribution Renovation	\$0.62	\$746.42
D20272201180	Commercial, 100' <F rise, 300 MBH input, 278 GPH	\$0.62	\$746.42
D3017	Energy Supply Renovation	\$4.02	\$4,818.88
D30172151110	Heating system, fin tube radiation, forced hot water, 10,000 S.F., 100,000 C.F., 2 floors	\$4.02	\$4,818.88
D3057	Terminal & Package Unit Renovation	\$4.10	\$4,919.94
D30572701140	Split system, air cooled condensing unit, schools and colleges, 20,000 S.F., 76.66 ton	\$4.10	\$4,919.94
D4017	Sprinkler Renovation	\$1.11	\$1,330.77
D40172771150	Heads and branches, steel, light hazard, 1 floor, 50,000 S.F.	\$1.10	\$1,318.73
D40172771310	Detection and alarm, steel, light hazard, 1 floor, 50,000 S.F.	\$0.01	\$12.04
D5010	Electrical Service/Distribution	\$22.47	\$26,960.28
D50102400280	Switchgear installation, incl switchboard, panels & circuit breaker, 120/208 V, 3 phase, 800 A	\$22.47	\$26,960.28
D5027	Lighting and Branch Wiring Renovation	\$7.46	\$8,957.56
D50271101130	Incl plate, box, conduit, wire, 8 per 1,000 S.F., .9 watts per S.F.	\$1.45	\$1,743.65
D50271101200	Receptacles, transformer, .9 w per S.F.	\$0.66	\$792.86
D50272101120	Wall switches, finish work, 2.0 per 1000 S.F.	\$0.31	\$367.86
D50273101140	Recess mounted in ceiling, 1.6 watt per S.F., 40 FC, 10 fixtures @ 32 watts per 1,000 S.F.	\$5.04	\$6,053.19
D5030	Communications and Security	\$0.31	\$377.44

D50309100462	Fire alarm command center, addressable with voice, excl. wire & conduit		\$0.31	\$377.44
D5037	Communications and Security Renovation		\$2.35	\$2,823.93
D50374101210	Sound systems, monitor panel, antenna AM/FM, amplifier, and cabinets		\$0.09	\$102.57
D50374101230	Sound systems, includes outlets, boxes, conduit and wire, 12 outlets		\$0.14	\$165.45
D50374101290	Master clock systems, includes outlets, boxes, conduit and wire, 10 rooms		\$0.16	\$193.38
D50374101340	Master TV antenna systems, sound system, components, antenna AM/FM		\$0.01	\$11.66
D50374101360	Master TV antenna systems, includes outlets, boxes, conduit and wire, 12 outlets		\$0.18	\$213.08
D50374101430	Fire detection, addressable, includes outlets, boxes, conduit and wire, 100 detectors		\$1.55	\$1,857.13
D50374151110	Internet wiring, 2 data/voice outlets per 1000 S.F.		\$0.17	\$203.80
D50374151150	Internet wiring, patch panel, 2 data/voice outlets per 1000 S.F.		\$0.06	\$76.86
E	Equipment & Furnishings	0.00%	\$0.00	\$0.00
E1090	Other Equipment		\$0.00	\$0.00
F	Special Construction	9.50%	\$10.41	\$12,486.75
F2010	Building Elements Demolition		\$10.41	\$12,486.75
F20102101130	Demolition, windows, aluminum, to 25 S.F.		\$0.81	\$972.94
F20102121130	Window demolition, by SF, Aluminum, to 100 S.F.		\$0.27	\$323.23
F20102201120	Demolition, single door, 3'-0" x 7' to 10' opening, metal frame		\$0.05	\$55.57
F20102201160	Demolition, double door, 6'-0" x 7' to 10' opening, metal frame		\$0.08	\$101.04
F20102201290	Demolition, interior, single leaf, 3'-0" x 7'-0" x 1-3/8", metal frame		\$0.05	\$60.89
F20102401110	Hatch Demolition, roof hatch, metal, 2'-6" x 3'-0"		\$0.04	\$45.97
F20102501110	Demolition, non-masonry, wood or metal studs		\$0.46	\$554.11
F20104201100	Demolition, wall mounted, boards and panels		\$0.31	\$366.57

F20104301150	Demolition, toilet partition, ceiling hung or floor mounted	\$0.04	\$45.47
F20104501110	Demolition, scraping and clean up, hand carry 0-100', carpet	\$0.05	\$62.52
F20104501120	Demolition, Scraping and clean up, hand carry 0-100', carpet pad	\$0.04	\$48.31
F20104501160	Demolition, composition flooring, terrazzo	\$0.23	\$276.80
F20104501180	Demolition, vinyl composite tile	\$0.96	\$1,149.29
F20104501200	Demolition, Ceramic or porcelain tile, strip flooring, wood	\$0.12	\$147.76
F20104501210	Demolition, underlayment, plywood	\$0.09	\$105.14
F20104601170	Demolition, acoustic ceiling system, grid and tiles	\$0.50	\$596.74
F20104701100	Demolition, wall covering, ceramic tile, thin set	\$0.04	\$53.99
F20106101110	Demolition, water closet, wall hung	\$0.07	\$85.96
F20106101130	Demolition, water cooler, wall or deck mounted	\$0.04	\$45.75
F20106101140	Demolition, lavatory, countertop	\$0.01	\$6.82
F20106101170	Demolition, lavatory, wall hung	\$0.04	\$49.71
F20106201130	Demolition, water heater, 50 thru 120 gallons	\$0.01	\$9.55
F20106351110	Demolition, heating systems, fin tube radiation, forced hot water, 10,000 S.F., 100,000 C.F., 2 floors	\$2.68	\$3,211.01
F20106851140	Demolition, air cooled condensing unit, schools and colleges, 20,000 S.F., 76.66 ton	\$1.31	\$1,577.09
F20106901120	Demolition, Heads and branches, steel, light hazard, 1 floor, 2,000 S.F.	\$0.00	\$0.02
F20106901150	Demolition, Heads and branches, steel, light hazard, 1 floor, 50,000 S.F.	\$0.04	\$47.03
F20106901270	Demolition, Detection and alarm, steel, light hazard, 1 floor, 50,000 S.F.	\$0.00	\$0.43
F20107101140	Demolition, Installation, incl switchboard, panels and circuit breaker, 120/208 V, 1 phase, 800 A	\$1.72	\$2,060.16
F20107201130	Demolition, Incl plate, box, conduit, wire, 8 per 1,000 S.F., .9 watts per S.F.	\$0.02	\$28.42
F20107201220	Demolition, Phase 1, transformer, .9 watts per S.F., 1 kVA	\$0.08	\$99.46
F20107301120	Demolition, Wall switches, finish work, 2.0 per 1000 S.F.	\$0.00	\$4.55

F20107351140	Demolition, Recess mounted in ceiling, 1.6 watt per S.F., 40 FC, 10 fixtures @ 32 watts per 1,000 S.F.	\$0.22	\$261.43
F20107551210	Demolition, sound systems, monitor panel, antenna AM/FM, amplifier, and cabinets	\$0.00	\$0.36
F20107551230	Demolition, sound systems, includes outlets, boxes, conduit and wire, 12 outlets	\$0.00	\$0.00
F20107551290	Demolition, master clock systems, includes outlets, boxes, conduit and wire, 10 rooms	\$0.00	\$2.98
F20107551340	Demolition, master TV antenna systems, sound system, components, antenna AM/FM	\$0.00	\$1.79
F20107551360	Demolition, master TV antenna systems, includes outlets, boxes, conduit and wire, 12 outlets	\$0.00	\$3.84
F20107551430	Demolition, fire detection, addressable, includes outlets, boxes, conduit and wire, 100 detectors	\$0.01	\$14.40
F20107551450	Demolition, fire alarm & command center, excludes conduit and wire, addressable with voice	\$0.00	\$1.72
F20107601110	Demolition, internet wiring, 2 data/voice outlets per 1000 S.F.	\$0.00	\$3.45
F20107601150	Demolition, internet wiring, patch panel, 8 data/voice outlets per 1000 S.F.	\$0.00	\$4.48
G	Building Sitework	0.00%	\$0.00

SubTotal	100%	\$109.55	\$131,464.84
Contractor Fees (General Conditions,Overhead,Profit)	35.0 %	\$38.34	\$46,012.69
Architectural Fees	9.0 %	\$13.31	\$15,972.98
User Fees	0.0 %	\$0.00	\$0.00
Total Building Cost		\$161.21	\$193,450.51

* Indicates Assemblies or Components have been customized.

APPENDIX 4: MINOR RENOVATION COST ESTIMATES

Square Foot Cost Estimate Report

Date: **4/1/2020**

Estimate Name:	Minor Reno Honolulu	
Building Type:	School Elementary Reno with Level 2 plus Non-Masonry Partitions	
Location:	HONOLULU, HI	
Story Count:	1	
Story Height (L.F.):	15.00	
Floor Area (S.F.):	1200	
Labor Type:	RR	
Basement Included:	No	
Data Release:	Year 2020	
Cost Per Square Foot:	\$43.38	
Building Cost:	\$52,059.60	

Costs are derived from a building model with basic components. Scope differences and market conditions can cause costs to vary significantly.

		% of Total	Cost Per S.F.	Cost
C	Interiors	65.84%	\$19.41	\$23,293.50
C1010	Partitions		\$2.67	\$3,204.90
C10101265400	Metal partition, 5/8" fire rated gypsum board face, no base, 3-5/8" @ 24" OC framing, same opposite face, no insulation		\$1.25	\$1,505.43
C10101268000	Metal partition, 5/8" high abuse gypsum board face, no base layer, 3-5/8" @ 24" OC framing, same opposite face, no insulation		\$0.39	\$470.38
C10101280700	Gypsum board, 1 face only, exterior sheathing, fire resistant, 5/8"		\$0.61	\$733.80
C10101280960	Add for the following: taping and finishing		\$0.41	\$495.29
C1017	Partition Renovation		\$1.48	\$1,772.32
C10171241120	Inspect, patch, and repair wallboard, 2" to 4", two sided		\$1.48	\$1,772.32
C1020	Interior Doors		\$1.19	\$1,426.73
C10201022600	Door, single leaf, kd steel frame, hollow metal, commercial quality, flush, 3'-0" x 7'-0" x 1-3/8"		\$1.19	\$1,426.73

C1030	Fittings		\$0.54	\$642.21
C10305200240	Chalkboards, liquid chalk type, aluminum frame & chalktrough		\$0.54	\$642.21
C3010	Wall Finishes		\$2.19	\$2,629.49
C30102300140	Painting, interior on plaster and drywall, walls & ceilings, roller work, primer & 2 coats		\$1.11	\$1,333.26
C30102300140	Painting, interior on plaster and drywall, walls & ceilings, roller work, primer & 2 coats		\$1.08	\$1,296.23
C3017	Wall and Door Finish Renovation		\$0.48	\$578.96
C30172101110	Prepare and paint door, lubricate door hardware, single leaf		\$0.47	\$565.37
C30172201110	Paint preparation, fill and sand, dusting walls with hand, nail holes		\$0.01	\$6.89
C30172201110	Paint preparation, fill and sand, dusting walls with hand, nail holes		\$0.01	\$6.70
C3020	Floor Finishes		\$3.25	\$3,905.31
C30204100160	Carpet, tufted, nylon, roll goods, 12' wide, 36 oz		\$0.69	\$831.44
C30204100220	Carpet, padding, add to above, 2.7 density		\$0.15	\$180.99
C30204101600	Vinyl, composition tile, maximum		\$2.41	\$2,892.89
C3030	Ceiling Finishes		\$5.14	\$6,169.01
C30302107400	Acoustic ceilings, 3/4" mineral fiber, 12" x 12" tile, concealed 2" bar & channel grid, suspended support		\$5.14	\$6,169.01
C3037	Ceiling Finish Renovation		\$2.47	\$2,964.58
C30372101160	12" x 12" tile, concealed, 3/4" mineral fiber		\$2.47	\$2,964.58
D	Services	22.06%	\$6.50	\$7,805.12
D4017	Sprinkler Renovation		\$0.55	\$659.12
D40172771150	Heads and branches, steel, light hazard, 1 floor, 50,000 S.F.		\$0.55	\$659.12
D5027	Lighting and Branch Wiring Renovation		\$4.85	\$5,814.41
D50271101130	Incl plate, box, conduit, wire, 8 per 1,000 S.F., .9 watts per S.F.		\$0.73	\$873.05
D50272101120	Wall switches, finish work, 2.0 per 1000 S.F.		\$0.15	\$184.10
D50273101140	Recess mounted in ceiling, 1.6 watt per S.F., 40 FC, 10 fixtures @ 32 watts per 1,000 S.F.		\$2.53	\$3,038.10

D50273101200	Clean, relamp, replace lense, 4 lamps per fixture, 10 fixtures per 1,000 S.F.		\$0.74	\$885.24
D50273101240	Elevate from work area, 10 fixtures per 1,000 S.F.		\$0.69	\$833.92
D5037	Communications and Security Renovation		\$1.11	\$1,331.59
D50374101230	Sound systems, includes outlets, boxes, conduit and wire, 12 outlets		\$0.07	\$83.20
D50374101290	Master clock systems, includes outlets, boxes, conduit and wire, 10 rooms		\$0.08	\$97.19
D50374101340	Master TV antenna systems, sound system, components, antenna AM/FM		\$0.00	\$5.87
D50374101360	Master TV antenna systems, includes outlets, boxes, conduit and wire, 12 outlets		\$0.09	\$107.05
D50374101430	Fire detection, addressable, includes outlets, boxes, conduit and wire, 100 detectors		\$0.78	\$936.19
D50374151110	Internet wiring, 2 data/voice outlets per 1000 S.F.		\$0.09	\$102.10
E	Equipment & Furnishings	0.00%	\$0.00	\$0.00
E1090	Other Equipment		\$0.00	\$0.00
F	Special Construction	8.94%	\$2.64	\$3,162.47
F2010	Building Elements Demolition		\$2.64	\$3,162.47
F20100011110	Demolition, install and remove dust barrier, 6 mil, 1" x 3" frame		\$0.08	\$97.92
F20102201290	Demolition, interior, single leaf, 3'-0" x 7'-0" x 1-3/8", metal frame		\$0.03	\$30.47
F20102501110	Demolition, non-masonry, wood or metal studs		\$0.23	\$277.29
F20104201100	Demolition, wall mounted, boards and panels		\$0.31	\$366.88
F20104501110	Demolition, scraping and clean up, hand carry 0-100', carpet		\$0.05	\$62.57
F20104501120	Demolition, Scraping and clean up, hand carry 0-100', carpet pad		\$0.04	\$48.35
F20104501180	Demolition, vinyl composite tile		\$0.96	\$1,152.08
F20104601160	Demolition, acoustic ceiling system, suspended, tiles only		\$0.54	\$647.01
F20104601170	Demolition, acoustic ceiling system, grid and tiles		\$0.25	\$298.62

F20106901150	Demolition, Heads and branches, steel, light hazard, 1 floor, 50,000 S.F.		\$0.02	\$23.53
F20107201130	Demolition, Incl plate, box, conduit, wire, 8 per 1,000 S.F., .9 watts per S.F.		\$0.01	\$14.22
F20107301120	Demolition, Wall switches, finish work, 2.0 per 1000 S.F.		\$0.00	\$2.28
F20107351140	Demolition, Recess mounted in ceiling, 1.6 watt per S.F., 40 FC, 10 fixtures @ 32 watts per 1,000 S.F.		\$0.11	\$130.82
F20107551230	Demolition, sound systems, includes outlets, boxes, conduit and wire, 12 outlets		\$0.00	\$0.00
F20107551290	Demolition, master clock systems, includes outlets, boxes, conduit and wire, 10 rooms		\$0.00	\$1.49
F20107551430	Demolition, fire detection, addressable, includes outlets, boxes, conduit and wire, 100 detectors		\$0.01	\$7.21
F20107601110	Demolition, internet wiring, 2 data/voice outlets per 1000 S.F.		\$0.00	\$1.73
G	Building Sitework	0.00%	\$0.00	\$0.00
H	General Conditions	3.16%	\$0.93	\$1,117.50
H2010	Cleaning		\$0.93	\$1,117.50
H20100401110	General cleaning, restrooms, fixtrure cleaning, urinals		\$0.00	\$1.03
H20100401120	General cleaning, restrooms, fixtrure cleaning, shower		\$0.00	\$2.30
H20100401130	General cleaning, restrooms, fixtrure cleaning, toilets		\$0.00	\$3.29
H20100401150	General cleaning, restrooms, fixtrure cleaning, sinks		\$0.00	\$3.32
H20100401180	General cleaning, restrooms, fixtrure cleaning, other systems, water fountain		\$0.00	\$0.62
H20100401190	General cleaning, restrooms, fixtrure cleaning, other systems, toilet partitions		\$0.01	\$6.24
H20100951120	Rooftop, MISC. cleaning, split system, air cooled condensing unit, schools and colleges, 20,000 S.F., 76.66 ton		\$0.76	\$910.08
H20104701120	Hard floor, cleaning, wash/wax		\$0.01	\$17.06
H20104701130	Hard floor, cleaning, protection		\$0.11	\$132.48

H20104701140	Wall care, cleaning treated cloth		\$0.01	\$6.40
H20104701140	Wall care, cleaning treated cloth		\$0.01	\$6.22
H20104701150	Wall, ceramic tiles		\$0.02	\$28.46
SubTotal		100%	\$29.48	\$35,378.59
Contractor Fees (General Conditions,Overhead,Profit)		35.0 %	\$10.32	\$12,382.51
Architectural Fees		9.0 %	\$3.58	\$4,298.50
User Fees		0.0 %	\$0.00	\$0.00
Total Building Cost			\$43.38	\$52,059.60

* Indicates Assemblies or Components have been customized.

Square Foot Cost Estimate Report

Date: **4/1/2020**

Estimate Name:	Minor Reno Hilo	
Building Type:	School Elementary Reno with Level 2 plus Non-Masonry Partitions	
Location:	HILO, HI	
Story Count:	1	
Story Height (L.F.):	15.00	
Floor Area (S.F.):	1200	
Labor Type:	RR	
Basement Included:	No	
Data Release:	Year 2020	
Cost Per Square Foot:	\$42.11	
Building Cost:	\$50,529.38	

Costs are derived from a building model with basic components. Scope differences and market conditions can cause costs to vary significantly.

		% of Total	Cost Per S.F.	Cost
C	Interiors	64.94%	\$18.58	\$22,298.03
C1010	Partitions		\$2.59	\$3,111.71

C10101265400	Metal partition, 5/8" fire rated gypsum board face, no base, 3 - 5/8" @ 24" OC framing, same opposite face, no insulation	\$1.22	\$1,464.51
C10101268000	Metal partition, 5/8" high abuse gypsum board face, no base layer, 3-5/8" @ 24" OC framing, same opposite face, no insulation	\$0.38	\$451.42
C10101280700	Gypsum board, 1 face only, exterior sheathing, fire resistant, 5/8"	\$0.59	\$704.39
C10101280960	Add for the following: taping and finishing	\$0.41	\$491.39
C1017	Partition Renovation	\$1.48	\$1,773.30
C10171241120	Inspect, patch, and repair wallboard, 2" to 4", two sided	\$1.48	\$1,773.30
C1020	Interior Doors	\$1.09	\$1,305.46
C10201022600	Door, single leaf, kd steel frame, hollow metal, commercial quality, flush, 3'-0" x 7'-0" x 1-3/8"	\$1.09	\$1,305.46
C1030	Fittings	\$0.49	\$583.48
C10305200240	Chalkboards, liquid chalk type, aluminum frame & chalktrough	\$0.49	\$583.48
C3010	Wall Finishes	\$2.14	\$2,564.93
C30102300140	Painting, interior on plaster and drywall, walls & ceilings, roller work, primer & 2 coats	\$1.08	\$1,300.53
C30102300140	Painting, interior on plaster and drywall, walls & ceilings, roller work, primer & 2 coats	\$1.05	\$1,264.40
C3017	Wall and Door Finish Renovation	\$0.46	\$557.38
C30172101110	Prepare and paint door, lubricate door hardware, single leaf	\$0.45	\$543.78
C30172201110	Paint preparation, fill and sand, dusting walls with hand, nail holes	\$0.01	\$6.90
C30172201110	Paint preparation, fill and sand, dusting walls with hand, nail holes	\$0.01	\$6.70
C3020	Floor Finishes	\$3.03	\$3,633.09
C30204100160	Carpet, tufted, nylon, roll goods, 12' wide, 36 oz	\$0.63	\$757.68

C30204100220	Carpet, padding, add to above, 2.7 density		\$0.14	\$169.22
C30204101600	Vinyl, composition tile, maximum		\$2.26	\$2,706.19
C3030	Ceiling Finishes		\$4.94	\$5,933.96
C30302107400	Acoustic ceilings, 3/4" mineral fiber, 12" x 12" tile, concealed 2" bar & channel grid, suspended support		\$4.94	\$5,933.96
C3037	Ceiling Finish Renovation		\$2.36	\$2,834.72
C30372101160	12" x 12" tile, concealed, 3/4" mineral fiber		\$2.36	\$2,834.72
D	Services	22.62%	\$6.47	\$7,769.06
D4017	Sprinkler Renovation		\$0.55	\$659.36
D40172771150	Heads and branches, steel, light hazard, 1 floor, 50,000 S.F.		\$0.55	\$659.36
D5027	Lighting and Branch Wiring Renovation		\$4.82	\$5,787.34
D50271101130	Incl plate, box, conduit, wire, 8 per 1,000 S.F., .9 watts per S.F.		\$0.73	\$871.82
D50272101120	Wall switches, finish work, 2.0 per 1000 S.F.		\$0.15	\$183.93
D50273101140	Recess mounted in ceiling, 1.6 watt per S.F., 40 FC, 10 fixtures @ 32 watts per 1,000 S.F.		\$2.52	\$3,026.60
D50273101200	Clean, relamp, replace lense, 4 lamps per fixture, 10 fixtures per 1,000 S.F.		\$0.74	\$882.86
D50273101240	Elevate from work area, 10 fixtures per 1,000 S.F.		\$0.69	\$822.13
D5037	Communications and Security Renovation		\$1.10	\$1,322.36
D50374101230	Sound systems, includes outlets, boxes, conduit and wire, 12 outlets		\$0.07	\$82.74
D50374101290	Master clock systems, includes outlets, boxes, conduit and wire, 10 rooms		\$0.08	\$96.67
D50374101340	Master TV antenna systems, sound system, components, antenna AM/FM		\$0.00	\$5.83
D50374101360	Master TV antenna systems, includes outlets, boxes, conduit and wire, 12 outlets		\$0.09	\$106.56

D50374101430	Fire detection, addressable, includes outlets, boxes, conduit and wire, 100 detectors		\$0.77	\$928.66
D50374151110	Internet wiring, 2 data/voice outlets per 1000 S.F.		\$0.08	\$101.90
E	Equipment & Furnishings	0.00%	\$0.00	\$0.00
E1090	Other Equipment		\$0.00	\$0.00
F	Special Construction	9.19%	\$2.63	\$3,156.86
F2010	Building Elements Demolition		\$2.63	\$3,156.86
F20100011110	Demolition, install and remove dust barrier, 6 mil, 1" x 3" frame		\$0.08	\$96.71
F20102201290	Demolition, interior, single leaf, 3'-0" x 7'-0" x 1-3/8", metal frame		\$0.03	\$30.45
F20102501110	Demolition, non-masonry, wood or metal studs		\$0.23	\$277.06
F20104201100	Demolition, wall mounted, boards and panels		\$0.31	\$366.57
F20104501110	Demolition, scraping and clean up, hand carry 0-100', carpet		\$0.05	\$62.52
F20104501120	Demolition, Scraping and clean up, hand carry 0-100', carpet pad		\$0.04	\$48.31
F20104501180	Demolition, vinyl composite tile		\$0.96	\$1,149.29
F20104601160	Demolition, acoustic ceiling system, suspended, tiles only		\$0.54	\$646.46
F20104601170	Demolition, acoustic ceiling system, grid and tiles		\$0.25	\$298.37
F20106901150	Demolition, Heads and branches, steel, light hazard, 1 floor, 50,000 S.F.		\$0.02	\$23.51
F20107201130	Demolition, Incl plate, box, conduit, wire, 8 per 1,000 S.F., .9 watts per S.F.		\$0.01	\$14.21
F20107301120	Demolition, Wall switches, finish work, 2.0 per 1000 S.F.		\$0.00	\$2.27
F20107351140	Demolition, Recess mounted in ceiling, 1.6 watt per S.F., 40 FC, 10 fixtures @ 32 watts per 1,000 S.F.		\$0.11	\$130.71
F20107551230	Demolition, sound systems, includes outlets, boxes, conduit and wire, 12 outlets		\$0.00	\$0.00
F20107551290	Demolition, master clock systems, includes outlets, boxes, conduit and wire, 10 rooms		\$0.00	\$1.49

F20107551430	Demolition, fire detection, addressable, includes outlets, boxes, conduit and wire, 100 detectors		\$0.01	\$7.20
F20107601110	Demolition, internet wiring, 2 data/voice outlets per 1000 S.F.		\$0.00	\$1.73
G	Building Sitework	0.00%	\$0.00	\$0.00
H	General Conditions	3.25%	\$0.93	\$1,114.74
H2010	Cleaning		\$0.93	\$1,114.74
H20100401110	General cleaning, restrooms, fixtrure cleaning, urinals		\$0.00	\$1.03
H20100401120	General cleaning, restrooms, fixtrure cleaning, shower		\$0.00	\$2.30
H20100401130	General cleaning, restrooms, fixtrure cleaning, toilets		\$0.00	\$3.28
H20100401150	General cleaning, restrooms, fixtrure cleaning, sinks		\$0.00	\$3.31
H20100401180	General cleaning, restrooms, fixtrure cleaning, other systems, water fountain		\$0.00	\$0.62
H20100401190	General cleaning, restrooms, fixtrure cleaning, other systems, toilet partitions		\$0.01	\$6.23
H20100951120	Rooftop, MISC. cleaning, split system, air cooled condensing unit, schools and colleges, 20,000 S.F., 76.66 ton		\$0.76	\$909.31
H20104701120	Hard floor, cleaning, wash/wax		\$0.01	\$17.05
H20104701130	Hard floor, cleaning, protection		\$0.11	\$130.71
H20104701140	Wall care, cleaning treated cloth		\$0.01	\$6.39
H20104701140	Wall care, cleaning treated cloth		\$0.01	\$6.22
H20104701150	Wall, ceramic tiles		\$0.02	\$28.29
SubTotal		100%	\$28.62	\$34,338.69
Contractor Fees (General Conditions,Overhead,Profit)		35.0 %	\$10.02	\$12,018.54
Architectural Fees		9.0 %	\$3.48	\$4,172.15
User Fees		0.0 %	\$0.00	\$0.00
Total Building Cost			\$42.11	\$50,529.38

* Indicates Assemblies or Components have been customized.

APPENDIX 5: RESIDENTIAL CONSTRUCTION

Cost Estimate Report



Date: 04/01/2020

Residential Renovation (support 210 sq. ft. childcare space)

Honolulu, HI

Year 2020

Unit Summary Report

Prepared By: Lynda Fender

MGT Consulting Group

Division	Description	Total
Division 09	Finishes	\$5,537.04
Division 11	Equipment	\$629.71
Division 12	Furnishings	\$1,606.73
Division 22	Plumbing	\$1,106.44
Division 26	Electrical	\$2,942.01
Division 28	Electronic Safety and Security	\$280.24
Subtotal		\$12,102.17
General Contractor's Markup on Subs		0.00%
		\$0.00
Subtotal		\$12,102.17
General Conditions		0.00%
		\$0.00
Subtotal		\$12,102.17
General Contractor's Overhead and Profit		0.00%
		\$0.00
Grand Total		\$12,102.17

Cost Estimate Report



Date: 04/02/2020

Residential Renovation (support 210 sq. ft. childcare space)

Hilo, HI

Year 2020

Unit Summary Report

Prepared By: Lynda Fender

MGT Consulting Group

Division	Description		Total
Division 09	Finishes		\$2,928.00
Division 12	Furnishings		\$564.16
Division 28	Electronic Safety and Security		\$280.32
Subtotal			\$3,772.48
General Contractor's Markup on Subs		0.00%	\$0.00
Subtotal			\$3,772.48
General Conditions		0.00%	\$0.00
Subtotal			\$3,772.48
General Contractor's Overhead and Profit		0.00%	\$0.00
Grand Total			\$3,772.48

Square Foot Cost Estimate Report

Date: **4/1/2020**

Estimate Name:	Residential Add Honolulu	
Building Type:	Average 1 Story with Brick Veneer - Wood Frame	
Location:	HONOLULU, HI	
Story Count:	1	
Story Height (L.F.):	8.00	
Floor Area (S.F.):	600	
Labor Type:	RES	
Basement:	No	
Data Release:	Year 2020	<small>Costs are derived from a building model with basic components. Scope differences and market conditions can cause costs to vary significantly.</small>
Cost Per Square Foot:	\$203.44	
Building Cost:	\$122,065.22	

		% of Total	Cost Per S.F.	Cost
01	Site Work	3.19%	\$5.65	\$3,391.02
0104034	Footing excavation, building, 26' x 46', 4' deep		\$5.65	\$3,391.02
02	Foundation	13.42%	\$23.74	\$14,241.67
0204030	Footing systems, 10" thick by 20" wide footing		\$4.30	\$2,577.76
0208034	Block wall systems, 8" wall, grouted, full height		\$14.32	\$8,592.86
0220034	Floor slab systems, 4" thick slab		\$5.12	\$3,071.05
03	Framing	7.01%	\$12.39	\$7,436.03
0308042	Exterior wall framing systems, 2" x 6", 16" OC		\$0.76	\$457.67
0308042	Exterior wall framing systems, 2" x 6", 16" OC		\$8.05	\$4,830.56
0348026	Partition framing systems, 2" x 4", 16" OC		\$3.58	\$2,147.80
04	Exterior Walls	24.28%	\$42.95	\$25,770.36
0404034	Brick/stone veneer systems, red faced common brick		\$2.26	\$1,353.62
0404034	Brick/stone veneer systems, red faced common brick		\$23.81	\$14,287.10
0420046	Non-rigid insul, batts, fbgls, kraft faced, 6" thick, R19, 15" wide		\$1.28	\$765.35
0420050	Non-rigid insul, batts, fbgls, kraft faced, 12" thick, R38, 15" wide		\$1.82	\$1,093.27

0428026	Double hung window systems, builder's quality wood window 2' x 3'		\$8.96	\$5,375.70
0452046	Door systems, solid core birch, flush, 3' x 6'-8"		\$3.69	\$2,212.97
0460025	Storm door, al, combination, storm & screen, anodized, 3'-0" x 6'-8"		\$1.14	\$682.35
05	Roofing	3.46%	\$6.13	\$3,677.41
0504034	Gable end roofing, asphalt, roof shingles, class A		\$6.13	\$3,677.41
06	Interiors	22.35%	\$39.55	\$23,727.17
0604026	Wall system, 1/2" drywall, taped & finished		\$10.32	\$6,191.25
0604026	Wall system, 1/2" drywall, taped & finished		\$4.54	\$2,724.15
0608026	1/2" gypsum wallboard, taped & finished ceilings		\$3.05	\$1,829.83
0620036	Birch, flush door, hollow core, interior		\$5.65	\$3,387.74
0624050	Closet door, bi-fold, pine, louvered, 6'-0" x 6'-8"		\$5.08	\$3,048.69
0660018	Carpet, Olefin, 22 oz		\$1.30	\$777.69
0660029	Padding, felt, 32 oz to 56 oz, minimum		\$0.55	\$328.60
0664030	Resilient flooring, vinyl sheet goods, backed, .070" thick, maximum		\$1.18	\$710.58
0664040	Resilient flooring, prefinished, oak, 2-1/2" wide		\$4.91	\$2,948.98
0664048	Resilient flooring, sleepers, treated, 16" OC, 1" x 3"		\$1.27	\$762.22
0664051	Resilient flooring, subfloor, plywood, 1/2" thick		\$1.01	\$606.86
0664054	Resilient flooring, ceramic tile, color group 2, 1" x 1"		\$0.68	\$410.58
07	Specialties	11.81%	\$20.90	\$12,540.87
0708036	Kitchen, average grade		\$14.06	\$8,437.40
0712036	Sinks, stainless steel, single bowl 22" x 25"		\$3.49	\$2,095.96
0712040	Water heater, electric, 40 gallon		\$3.35	\$2,007.51
08	Mechanical	10.24%	\$18.11	\$10,866.37
0812032	Three fixture bathroom installed with vanity		\$10.27	\$6,163.37
0860101	Furnace, gas heating only, 100 MBH, area to 1200 SF		\$2.44	\$1,464.96
0860109	Intermittent pilot, 100 MBH furnace		\$0.60	\$357.51

0860111	Supply duct, rectangular, area to 1200 SF, rigid fiberglass		\$0.92	\$549.93
0860121	Return duct, sheet metal galvanized, to 1500 SF		\$1.10	\$660.57
0860123	Lateral ducts, flexible round 6" insulated, to 1200 SF		\$1.11	\$665.67
0860135	Register elbows, to 1500 SF		\$0.58	\$345.35
0860137	Floor registers, enameled steel w/damper, to 1500 SF		\$0.39	\$236.92
0860139	Return air grille, area to 1500 SF 12" x 12"		\$0.12	\$73.32
0860143	Thermostat, manual, 1 set back		\$0.23	\$140.38
0860147	Plenum, heating only, 100 MBH		\$0.35	\$208.39
09	Electrical	4.23%	\$7.49	\$4,492.77
0910048	200 amp electric service		\$3.89	\$2,331.92
0935212	Wiring device systems, average to 1200 S.F.		\$2.63	\$1,580.29
0945212	Light fixture systems, average to 1200 S.F.		\$0.97	\$580.56
SubTotal		100%	\$176.91	\$106,143.67
Contractor Fees (General Conditions,Overhead,Profit)		15.0 %	\$26.54	\$15,921.55
Architectural Fees		0.0 %	\$0.00	\$0.00
User Fees		0.0 %	\$0.00	\$0.00
Total Building Cost			\$203.44	\$122,065.22

* Indicates Assemblies or Components have been customized.

RSMeans data
from GORDIAN

**Square Foot Cost Estimate
Report**

Date: **4/1/2020**

Estimate Name: **Residential addition Hilo**

Building Type:	Average 1 Story with Wood Siding - Wood Frame	 <p>Costs are derived from a building model with basic components. Scope differences and market conditions can cause costs to vary significantly.</p>
Location:	HILO, HI	
Story Count:	1	
Story Height (L.F.):	8.00	
Floor Area (S.F.):	600	
Labor Type:	RES	
Basement:	No	
Data Release:	Year 2020	
Cost Per Square Foot:	\$162.07	
Building Cost:	\$97,232.74	

		% of Total	Cost Per S.F.	Cost
01	Site Work	3.48%	\$5.65	\$3,388.16
0104034	Footing excavation, building, 26' x 46', 4' deep		\$5.65	\$3,388.16
02	Foundation	14.41%	\$23.35	\$14,008.42
0204030	Footing systems, 10" thick by 20" wide footing		\$4.22	\$2,532.29
0208034	Block wall systems, 8" wall, grouted, full height		\$14.11	\$8,467.50
0220034	Floor slab systems, 4" thick slab		\$5.01	\$3,008.63
03	Framing	7.53%	\$12.20	\$7,319.97
0308042	Exterior wall framing systems, 2" x 6", 16" OC		\$0.75	\$450.08
0308042	Exterior wall framing systems, 2" x 6", 16" OC		\$7.92	\$4,750.50
0348026	Partition framing systems, 2" x 4", 16" OC		\$3.53	\$2,119.39
04	Exterior Walls	22.12%	\$35.85	\$21,507.70
0408034	Wood siding systems, 1/2" x 8" beveled cedar siding, "A" grade		\$1.68	\$1,005.62
0408034	Wood siding systems, 1/2" x 8" beveled cedar siding, "A" grade		\$17.69	\$10,613.99
0420046	Non-rigid insul, batts, fbgls, kraft faced, 6" thick, R19, 15" wide		\$1.25	\$750.11
0420050	Non-rigid insul, batts, fbgls, kraft faced, 12" thick, R38, 15" wide		\$1.77	\$1,062.82
0428026	Double hung window systems, builder's quality wood window 2' x 3'		\$8.75	\$5,248.24
0452046	Door systems, solid core birch, flush, 3' x 6'-8"		\$3.61	\$2,163.37
0460025	Storm door, al, combination, storm & screen, anodized, 3'-0" x 6'-8"		\$1.11	\$663.55

05	Roofing	3.72%	\$6.03	\$3,616.55
0504034	Gable end roofing, asphalt, roof shingles, class A		\$6.03	\$3,616.55
06	Interiors	23.95%	\$38.83	\$23,291.04
0604026	Wall system, 1/2" drywall, taped & finished		\$10.16	\$6,097.60
0604026	Wall system, 1/2" drywall, taped & finished		\$4.47	\$2,682.94
0608026	1/2" gypsum wallboard, taped & finished ceilings		\$3.02	\$1,810.40
0620036	Birch, flush door, hollow core, interior		\$5.55	\$3,327.30
0624050	Closet door, bi-fold, pine, louvered, 6'-0" x 6'-8"		\$4.98	\$2,987.88
0660018	Carpet, Olefin, 22 oz		\$1.26	\$756.52
0660029	Padding, felt, 32 oz to 56 oz, minimum		\$0.53	\$320.24
0664030	Resilient flooring, vinyl sheet goods, backed, .070" thick, maximum		\$1.16	\$693.66
0664040	Resilient flooring, prefinished, oak, 2-1/2" wide		\$4.79	\$2,871.38
0664048	Resilient flooring, sleepers, treated, 16" OC, 1" x 3"		\$1.25	\$747.07
0664051	Resilient flooring, subfloor, plywood, 1/2" thick		\$0.99	\$594.69
0664054	Resilient flooring, ceramic tile, color group 2, 1" x 1"		\$0.67	\$401.36
07	Specialties	0.00%		
08	Mechanical	4.74%	\$7.69	\$4,612.28
0860101	Furnace, gas heating only, 100 MBH, area to 1200 SF		\$2.37	\$1,424.66
0860109	Intermittent pilot, 100 MBH furnace		\$0.57	\$344.60
0860111	Supply duct, rectangular, area to 1200 SF, rigid fiberglass		\$0.91	\$545.75
0860121	Return duct, sheet metal galvanized, to 1500 SF		\$1.10	\$657.77
0860123	Lateral ducts, flexible round 6" insulated, to 1200 SF		\$1.09	\$652.80
0860135	Register elbows, to 1500 SF		\$0.57	\$340.83
0860137	Floor registers, enameled steel w/damper, to 1500 SF		\$0.39	\$232.56
0860139	Return air grille, area to 1500 SF 12" x 12"		\$0.12	\$71.68
0860143	Thermostat, manual, 1 set back		\$0.23	\$138.25
0860147	Plenum, heating only, 100 MBH		\$0.34	\$203.38
09	Electrical	4.56%	\$7.38	\$4,432.70

0910048	200 amp electric service		\$3.84	\$2,306.38
0935212	Wiring device systems, average to 1200 S.F.		\$2.60	\$1,559.74
0945212	Light fixture systems, average to 1200 S.F.		\$0.94	\$566.58
SubTotal		100%	\$136.98	\$82,176.82
Contractor Fees (General Conditions,Overhead,Profit)		15.48%	\$25.09	\$15,055.92
Architectural Fees		0.0 %	\$0.00	\$0.00
User Fees		0.0 %	\$0.00	\$0.00
Total Building Cost			\$162.07	\$97,232.74

* Indicates Assemblies or Components have been customized.