



BUILDING DIVISION • DEPARTMENT OF PUBLIC WORKS

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Residential Permit

Minimum Construction Drawing Guidelines

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What is a Construction Drawing?

- **Contract Document**
 - This is the set of drawings used by the contractor, banks, appraisers, insurance companies and many others.
- **Permit Review Set**
 - This is the minimum drawings required for plan review, permitting, and inspections.

Introduction

- A Construction Drawing is an architectural and technical drawing of a building (in this case a dwelling).
- Construction Drawings are made according to a set of conventions, which include particular views, such as a site plan, floor plan, building sections, foundation and framing plans, roof plans, exterior elevations, and details, etc.
- Construction Drawings are used by a draftsman, architect, or engineers to develop their design ideas and communicate the concepts with the owner(s) and contractors.

Drawing Sheet Size & Scale

- Construction drawings are to be of industry recognized sizes for the drawings to be easily read both electronically by permit clerks, plans examiners, and in print form for the builders, and inspectors.
- Sheet sizes of Standard US Architectural Drawing Sizes “C” (22”x34”) or “D” (24”x36”) sizes, and Standard US Engineering Drawing Sizes / ANSI sheets sizes “D” (22” x 34”) or “E” (34” x 44”) preferred. It is important that all sheets submitted in the permit set are the same size. Contact our office for the use of other sheet sizes.

Drawing Sheet Size & Scale (continued)

- Electrical Only and PV Applications sheet sizes may be submitted on “half size sheets”, either Standard US Architectural Drawing Sizes “B” (12”x18”) or Standard US Engineering Drawing Sizes / ANSI sheets sizes “B” (11” x 17”)
- Construction Drawings are required to be to scale in US Customary system of units of either Architectural ($1/8$ ”, $1/4$ ” $1\ 1/2$ ”, etc.) or Engineer (1 ” = 10’, 1 ” = 20’, etc.).
- A drawing scale is required to be either written and or graphic for all drawings and details.

Construction Drawings

What is required to submit for a building permit?

Construction Drawings

- Construction drawings are created for a specific audience such as the financing, bidding, and construction as well as permitting and inspections
- Construction plans are part of a set of contract documents with a builder and should be included as part of the specifications of materials, warranties, and installation methods.
- Construction plans are done to a set of conventions

Construction Drawings (continued)

- Plumbing drawings as required for four bathrooms (4 water closets) per HCC 5-4-3(i)
- Electrical drawings as required HCC 5-4-3(e)
- Structural Calculations and Special Inspection form as required if not designed to the prescriptive provisions of the International Residential Code.
- Note that this is not a comprehensive or exhaustive list as every home is different. See the Hawaii County Code (HCC) Section 5-4-2.

Residential Applications

Drawings

- Site Plan
- Floor Plans
- Foundation
- Framing Plans
- Roof Plan(s)
- Exterior Elevations
- Building Sections
- Wall Sections & Details
- Specifications & Code Data
- Septic & Water Tank
- Plumbing or other drawings ...

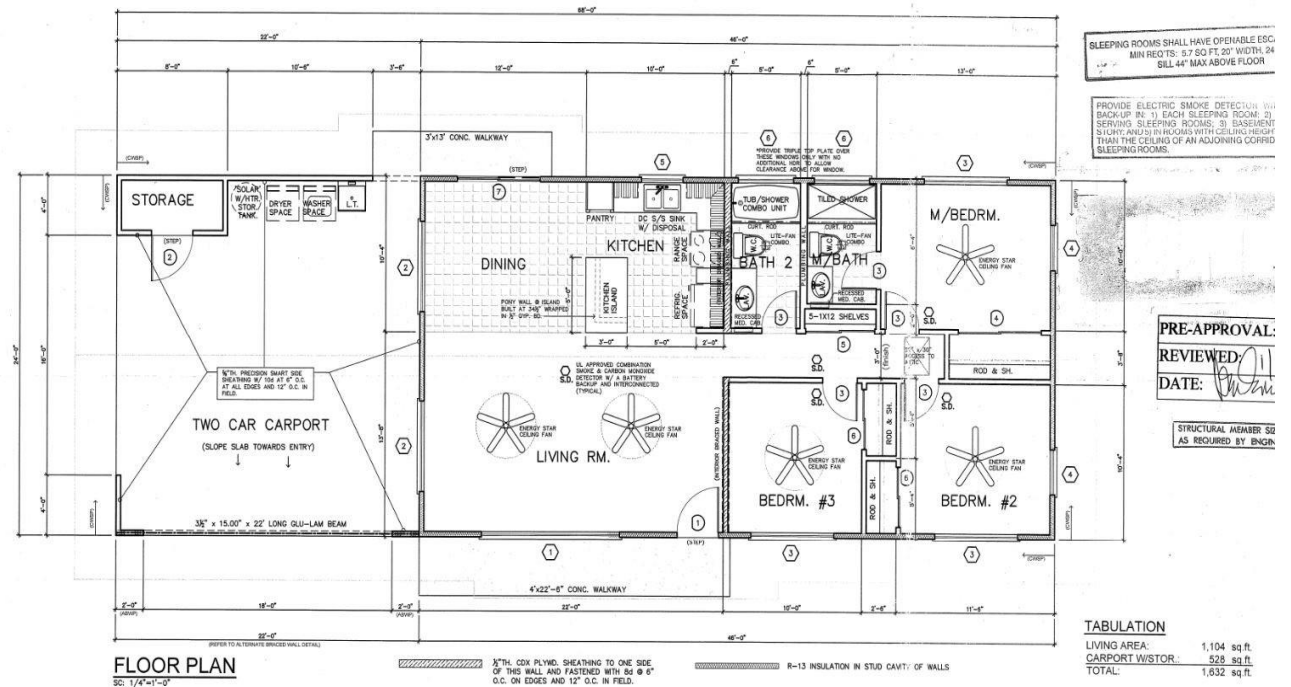
Residential Applications

...continued

- All applications are digital via the EPIC system
 - A Plan Review Fee is required based on the estimated permit fee
 - Work begun without a permit will be assessed an additional fee
 - Applications may expire additional fees may be required when corrections are not addressed
- ❖ See Hawaii County Code Chapter 5, Sections 5-4-7 “Cancellation of Application” and Section 5-5-4 “Expiration” for more information.

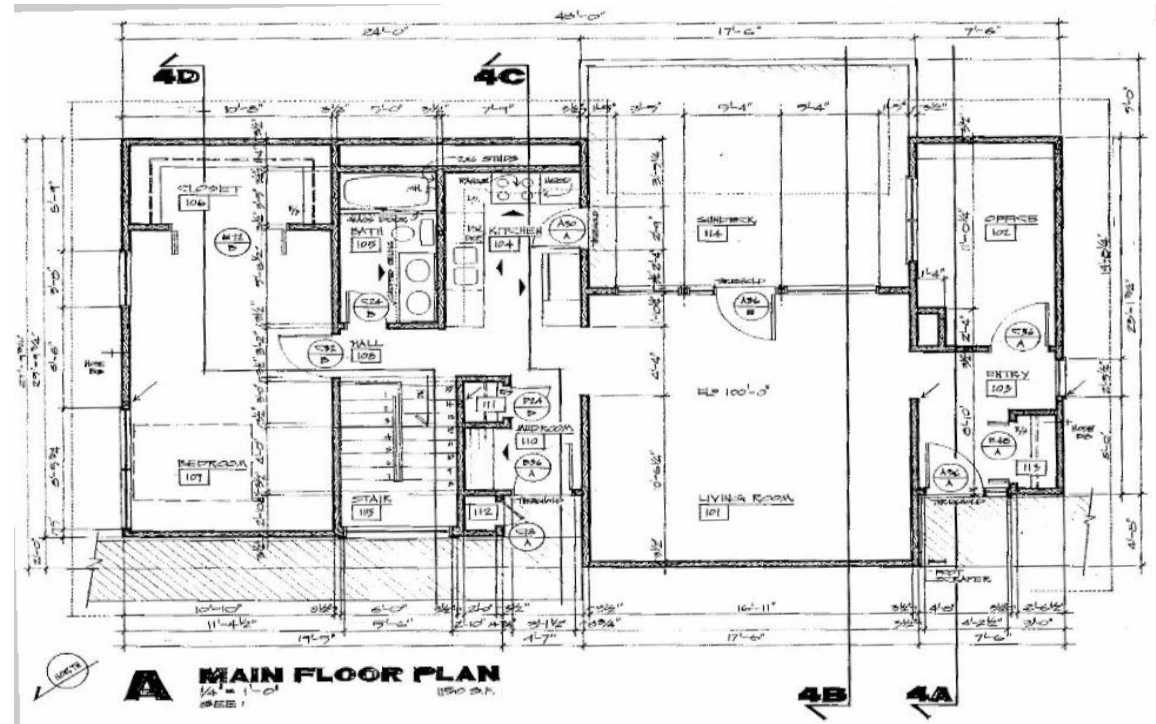
Floor Plans

- Show and dimension all walls, partitions, and openings
- Identify all floor finish materials on the plan (optional)
- Show and note structural posts and columns
- Note windows and doors; sizes & operation (Schedules – See page 18 for examples)
- Show and note all appliances and fixtures.



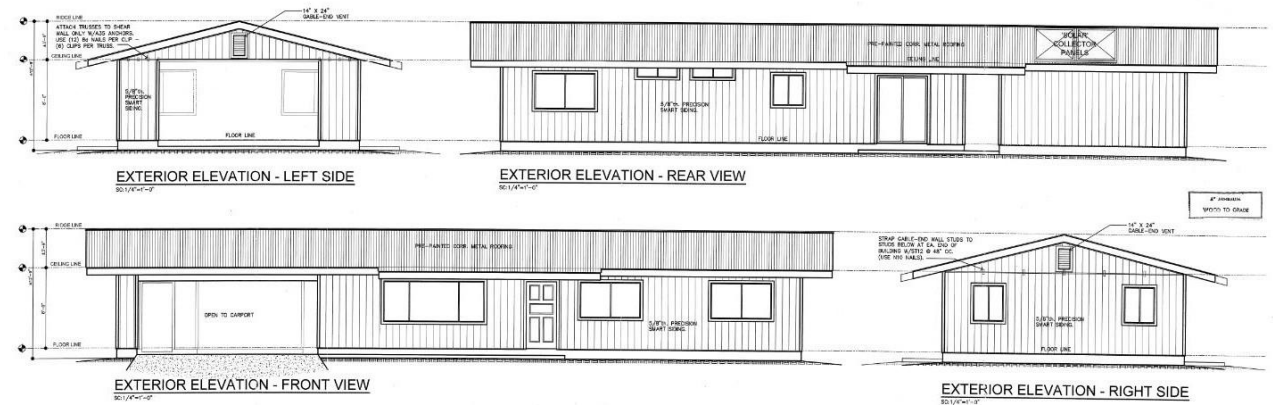
Floor Plans Continued

- Note scale
- Show cross section and detail references
- Label each space
- Note natural light and ventilation requirements provided each habitable space
- Show and dimension landings and thresholds



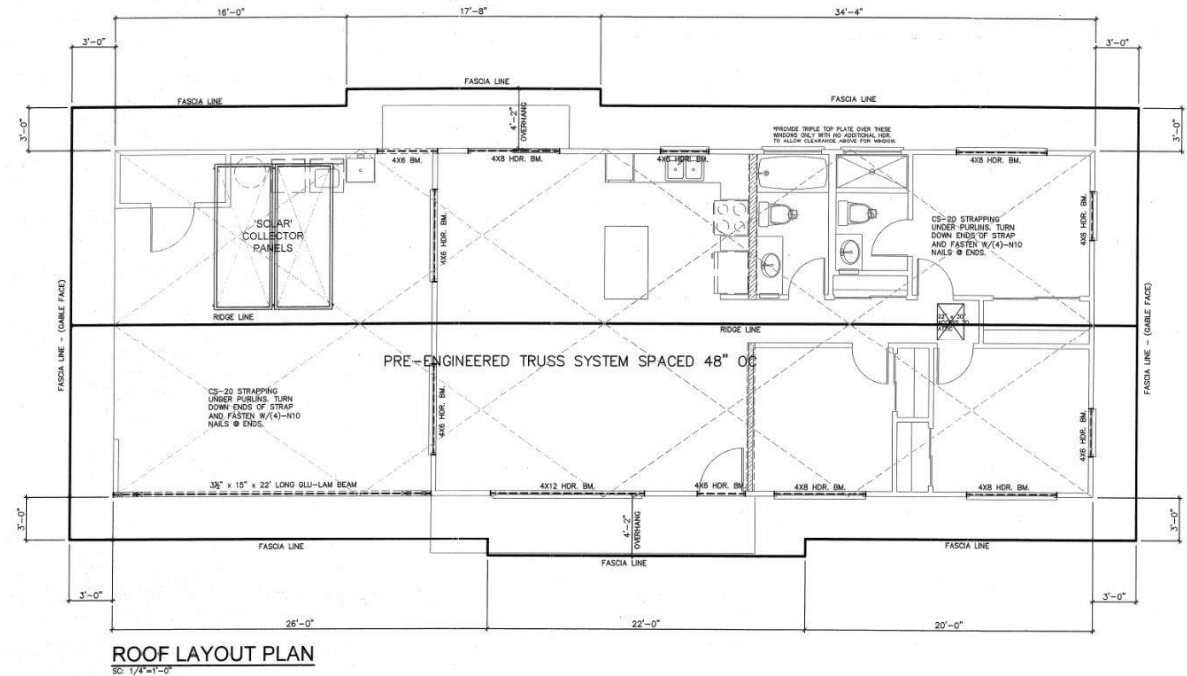
Exterior Elevations

- Note scale and orientation
- Indicate eave & ridge vents
- Indicate Solar HW panel location
- Note door and window location and operation
- Reflect openings and distance from grade to finish floor, eave, and ridge



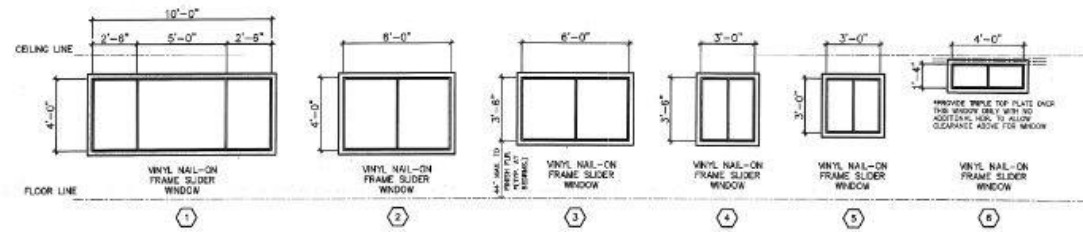
Foundation & Roof Framing Plans

- Note all bearing walls, beams, framing and columns
- Reference typical connection details
- Show framing & sheathing
- Note size and spacing of members, bridging and blocking, not where occur
- Call out all structural items shown
- Dimensions throughout



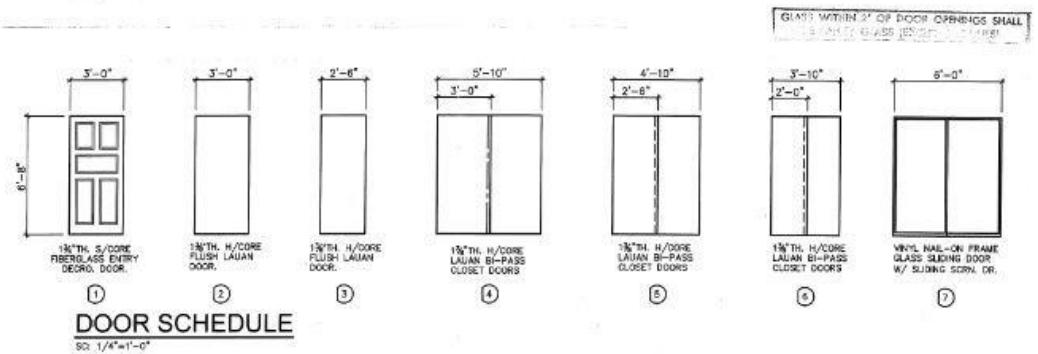
Schedules

- Door and Window graphic or written schedule
- Note size, operation, head height, and egress where required
- Label types referenced of floor plan
- Note light and ventilation requirements and provided per HCC Chapter 5B, R303.1
- Show and dimension landings and thresholds



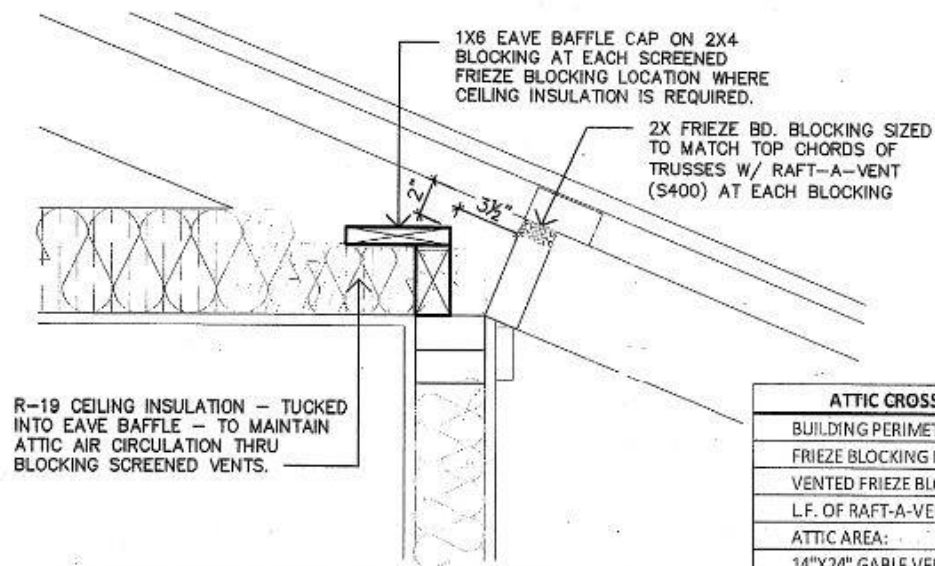
DUAL GLAZE WHITE NAIL-ON VINYL SLIDING GLASS WINDOWS WITH REMOVABLE SCREENS.
SLIDING WINDOW SCHEDULE
 SQ: 1/4"=1'-0"

NOTE: ALL EXTERIOR FIXED/SLIDING GLASS DOORS AND WINDOWS SHALL HAVE A GLAZING PENETRATION SHGC MAXIMUM 0.25, EXCEPT: UP TO 15 SQUARE FEET OF GLAZED PENETRATION PER DWELLING.



Details (examples)

- Show all framing connections
- Balcony or lanai railing details
- Stair details
 - Railing
 - Tread and riser
 - Framing
 - Landings
- Footings and Foundation details
- Eave and soffit details



EAVE BAFFLE DETAIL

SC: 1/2" = 1'-0"

For air-permeable insulations in vented attics, a baffle shall be installed adjacent to soffit and eave vents. Baffles shall maintain an opening equal or greater than the size of the vent. The baffle shall extend over the top of the attic insulation. The baffle shall be permitted to be any solid material.

ATTIC CROSS VENTILATION CALCULATION	
BUILDING PERIMETER :	136 LF.
FRIEZE BLOCKING LENGTH:	4 FT.
VENTED FRIEZE BLOCKING:	34 COUNT
L.F. OF RAFT-A-VENT/S400:	136 LF
ATTIC AREA:	1632 SQ.FT.
14"x24" GABLE VENTS (x2)	1.8 SQ.FT.
VENT PROVIDED:	11.24444 SQ.FT.
REQ. VENT:	10.88 SQ.FT.
*REQUIREMENT: 1 sq. ft. of vent per 150 sq.ft. of attic area	
METHOD: Cor-a-vent S400 at each Frieze blocking and (2) 14"x24" Gable Vents	
*Frieze blocking amount is approximate. Verify in field.	

Digital Plan Submittal

- Sheet size 24"x36" typical
- Orientation Landscape
- Layout
 - 6"x6" DPW Block on Cover
 - 3" Square on upper right
- PDF file name to match sheet
 - One sheet per PDF
 - Bundled, "Stapled", or "Combined" into one set
- Black & White only

3"x3" space for DPW use on EACH SHEET

UNION COUNTY
ENGINEERING
ARCHITECT
PLANNING
NO. 104
MAY 2014

DATE: 09/07/2014

ARCHITECT
ARCHITECTURE
123 STREET NAME
MILWAUKEE, WI 53202
PH: 987-6543
FX: 987-6543

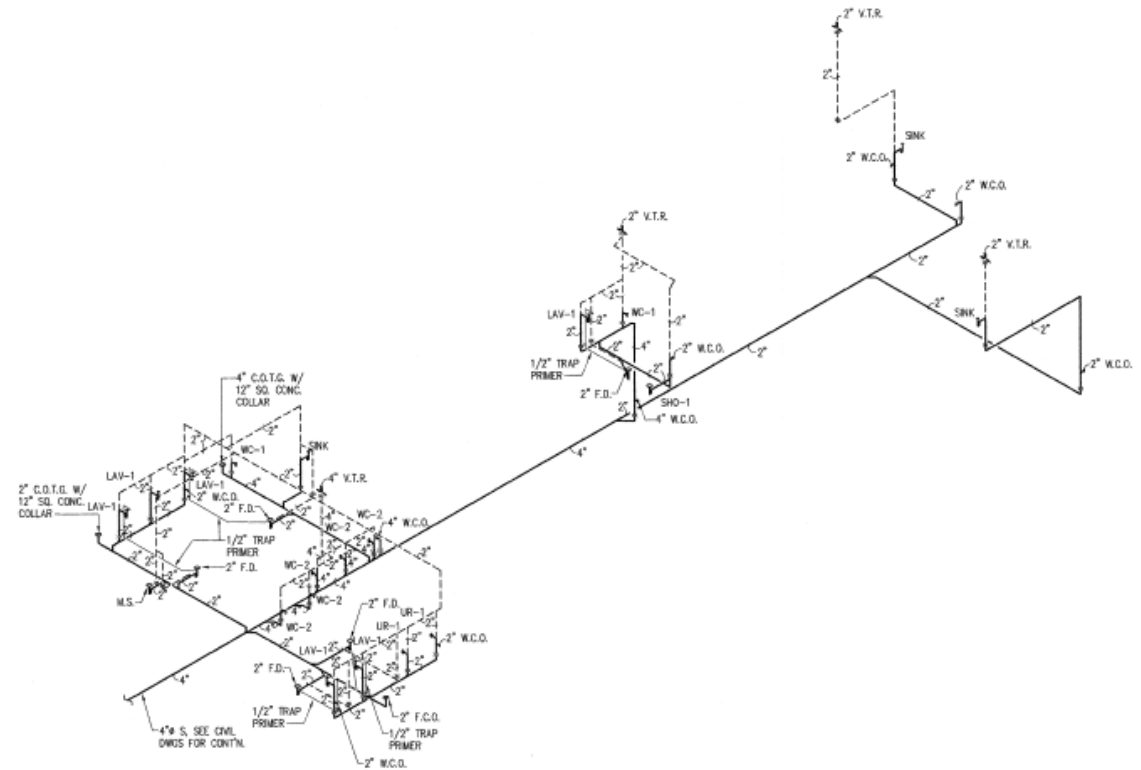
LEGAL OWNER'S NAME(S)
TITLE:
ADDRESS:
PHONE:

DATE:
DRAWN BY:
CHECKED BY:
SHEET NO.

6"x6" space for DPW permit use on TITLE SHEET ONLY

Plumbing Drawings

- Required for dwellings with more than three bathrooms
- Indicate schematic layout
- Note waste and vents
 - Provide pipe sizes
 - Note vent locations and size
 - Note clean out locations c/o
 - And connection to private or county waste water system
- Two dimensional “plan view” is acceptable with the same information provided for one-story buildings



Corrections to Plans

- Please include and annotate in the construction documents common minor missing health, life safety items including but not limited to:
 - Fire and draft stops not shown or noted
 - Clearance from wood, floor joists, or beams to earth
 - Attic or crawlspace access
 - Ventilation from dryer or exhaust fans to the exterior and 36" minimum from openings
 - Separation distance between Garage/Carport from the dwelling or fire resistive covering when living space is located above.
 - Clearance from toilet to walls and/or opening from showers
 - Sleeping rooms shall have egress (escape and emergency access) windows from the exterior
 - Stair and ramp dimensions, tread and riser sizes and gaps, guardrails, handrails, and landings must be shown in addition to the construction details
 - Electric Smoke Detector locations
 - Termite and rot resistant lumber as well as treatment under slabs and footings
 - Cooktop clearances

Other Important Information

- Please review HCC Chapter 5 for further important information regarding applications, permits, fees, and inspections
 - A Plan Review Fee is required based on the estimated permit fee (HCC 5-7-1(a))
 - Work begun without a permit will be assessed an additional fee (HCC 5-7-1(d))
 - Applications may expire, additional fees may be required when corrections are not addressed (HCC 5-4-7)
- Other Documents
- Registration with [EPIC](#)
- Other Documents; Project Declaration form identifying contractors and sub-contractors will be required at the time of permit issuance.
- [Property Owner Declaration](#)
 - LLC, Trust, Partnership, or Corporation documents may also be required
 - Instructions: <http://records.hawaiicounty.gov/WebLink/DocView.aspx?dbid=1&id=112370>
- [Project Declaration](#)
 - Assign Contractor or sign as Owner-Builder and indicate

Resources

For more information about applications and permitting under EPIC click [HERE](#)

Electronic plan application and plan review videos and guides are available [HERE](#)

More information?

Hawaii County Department of Public Works

Building Division

Hilo (808) 961-8331

Kona (808) 323-4720

Email: cohbuild@hawaiicounty.gov



Thank you to HPM Building Supply for examples of Huaka Model home.