



CONCEPT COST ESTIMATE FOR
HOKUA PLACE
 TMK (4) 4-3-003:001 (PORTION)

January 2020



HOKUA SUBDIVISION COST SUMMARY

Section	Area (acres)	Cost Per Acre	Cost
Multi-Family 1	29.31	\$1,064,900	\$31,212,200
Multi-Family 2	17.09	\$1,064,900	\$18,199,100
Single Family 1	18.25	\$441,900	\$8,064,700
Single Family 2	4.70	\$441,900	\$2,076,900
Subtotal			\$59,552,900
Section	Length	Cost Per Foot	Cost
Main Roadway	3,350 ft	\$1,300	\$4,355,000
Offsite Sewer Work	1,870 ft, 5 manholes	\$180, plus \$9,000 per manhole	\$381,600
Subtotal			\$4,736,600
Line Item	Unit Quantity	Cost per Unit	Cost
Offsite Intersections	2	\$800,000	\$1,600,000
Well Development	1	\$1,000,000	\$1,000,000
Water Tank – Phase 1	1	\$400,000	\$400,000
Booster Pump – Phase 1	1	\$400,000	\$400,000
Water Tank – Phase 2	1	\$900,000	\$900,000
Booster Pump – Phase 2 Upgrade	1	\$520,000	\$520,000
Subtotal			\$4,820,000
Total			\$69,109,500
20% Contingency			\$13,821,900
Grand Total			\$82,931,400



The Hokuia Subdivision Cost Summary is based on the following assumptions and projects Bow Engineering has previously designed on Kauai.

MULTI-FAMILY AFFORDABLE HOUSING

Project	Koa'e Workforce Housing Development	Waimea Huakai Affordable Housing
Tax Map Key	TMK (4) 2-6-004:019	TMK (4) 1-6-008:006
Project Area	8.04 Ac	1.86 Ac
Approximate Onsite Construction Cost*	\$8,979,400	\$1,884,200
Cost Per Acre	\$1,116,800	\$1,013,000

*Cost includes demolition and erosion control, earthwork, hardscape (walkways, roadways, parking lots), grassing, drainage system, underground detention basins, domestic water and fireline system, sewer system, electrical work

Average Cost per Acre: \$1,064,900

SINGLE FAMILY AFFORDABLE HOUSING

Project	Waimea Habitat Single Family
Tax Map Key	TMK (4) 1-6-008:006
Project Area	4.49 Ac
Approximate Onsite and Offsite Construction Cost*	\$1,984,000
Cost Per Acre	\$441,900

*Cost includes demolition and erosion control, earthwork, hardscape (walkways, roadways), grassing, drainage system, domestic water and fireline system, sewer system

Cost per Acre: \$441,900

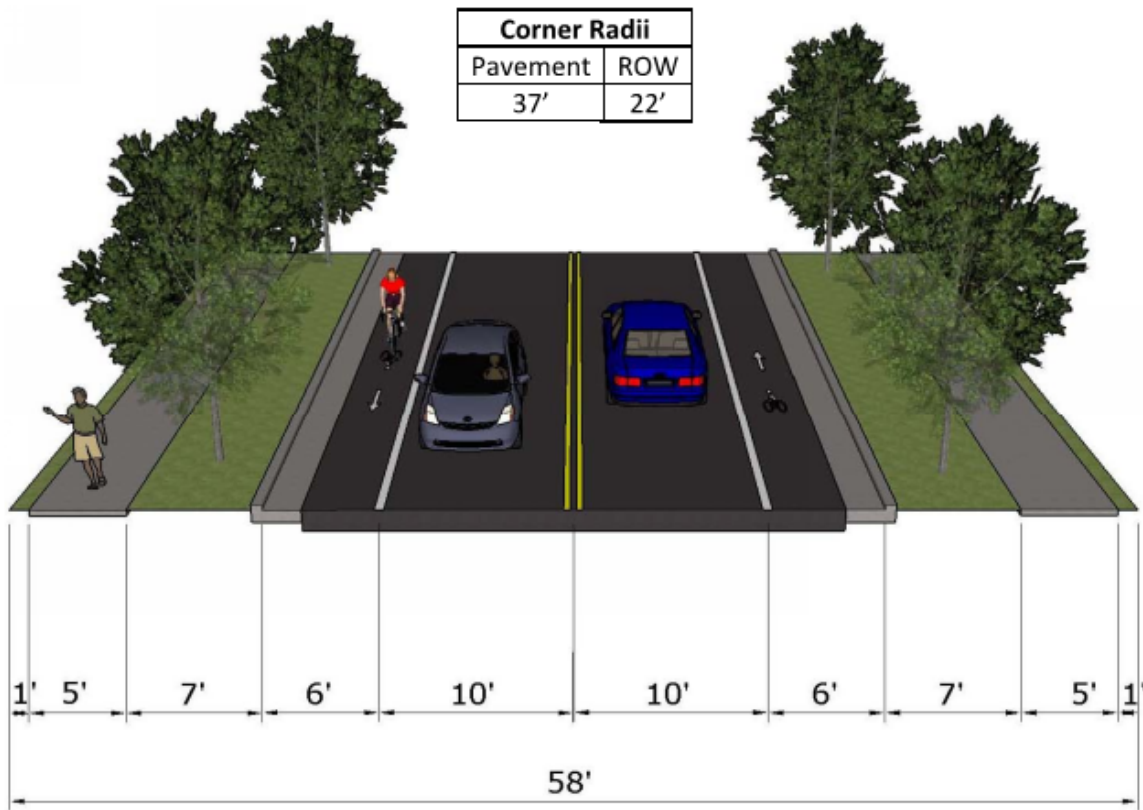


ROADWAY COSTS

Cost per ft of Roadway ~ \$1,300

This cost is for a minor-collector roadway with a Right-of-Way width of 58 feet and includes AC pavement, base course, 2 feet wide concrete curb and gutter, 5 feet wide sidewalks, grassing, water, sewer, and drain utilities, and assumes the roadway is built at grade with minimal grading. The unit costs below were used.

Item	Unit	Unit Price
<u>Site Improvements</u>	-	-
Excavation	CY	\$ 50.00
Embankment	CY	\$ 50.00
4 ' AC Pavement	SY	\$ 90.00
6 " Asphalt-Treated Base Course	SY	\$ 140.00
8 " Base Course	CY	\$ 40.00
6 " Conc. Curb	LF	\$ 30.00
2 Foot Concrete Gutter	SF	\$ 12.00
4 " Conc. Sidewalk	SF	\$ 14.00
4 " Base Course (For Sidewalk)	SF	\$ 5.00
8 " Water	LF	\$ 100.00
Trench Excavation (Water)*	CY	\$ 50.00
8 " Sewer	LF	\$ 80.00
Trench Excavation (Sewer)**	CY	\$ 50.00
8 " Drain	LF	\$ 80.00
Trench Excavation (Drain)***	CY	\$ 50.00



Section Min-3: Minor Connector with bike lanes and sidewalks - Centerline where required
 (Where left turn lanes or medians are required, the right-of-way should be widened by 14 feet; see section Maj-2 for left turn lane/median dimensions.)

*Figure 1 – Minor Connector Road,
 County of Kaua'i Street Design Manual dated October 30, 2018(3-11)*

OFFSITE SEWER WORK

The proposed Hokua Subdivision sewer system will connect to a sewer manhole near the intersection of Kukui Street and Ulu Street. The offsite length of sewer line from the development to the connection to the County system is 1,870 feet and we estimate about 5 manholes along the line. The cost of construction per foot of sewerline is about \$180 (including the pipe, excavation and installation), and cost per manhole is about \$9,000.



OFFSITE ROADWAY INTERSECTIONS

The estimated construction cost for the offsite intersections is based on the estimated construction cost for the intersection of Kapule Highway and Ninini Point Street. Since the Kapule-Ninini Intersection was concrete, we replaced the concrete cost with asphalt and estimate the offsite intersections for the Hokua Subdivision to be about \$800,000 each. There will be two offsite intersections for the Hokua Subdivision.

WATER WELL

Estimates for the construction of the well, water tanks, and booster pumps were taken directly from Exhibit E “Irrigation Supply for the Kapa`a Highlands Agricultural Subdivision Water Master Plan” of the FEIS. Construction of structures in Phase 1 are required for construction of structures in Phase 2.