

# STORMWATER ANALYSIS

FOR

## BUTTONWOOD

Prepared for:



The Town of Longboat Key Public Works  
600 General Harris St  
Longboat Key, FL 34228

Prepared by:

**Kimley»Horn**

Registry No. 35106  
© Kimley-Horn and Associates, Inc.  
1777 Main Street, Suite 200  
Sarasota, FL 34236  
(941) 379-7600

December 2022

Project No. 148800014

# ENGINEER'S CERTIFICATION

---

## STORMWATER ANALYSIS FOR BUTTONWOOD

THIS IS TO CERTIFY THAT THE ENCLOSED ENGINEERING CALCULATIONS WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION.

---

Molly Charlene Williams, P.E. #54281  
Kimley-Horn and Associates, Inc.  
1777 Main Street, Suite 200  
Sarasota, Florida 34236

MOLLY CHARLENE WILLIAMS, P.E.

STATE OF FLORIDA,  
PROFESSIONAL ENGINEER,  
LICENSE NO.54281

THIS ITEM HAS BEEN DIGITALLY SIGNED  
AND SEALED BY  
MOLLY CHARLENE WILLIAMS, P.E.  
ON THE DATE INDICATED HERE.

PRINTED COPIES OF THIS DOCUMENT ARE  
NOT CONSIDERED SIGNED AND SEALED  
AND THE SIGNATURE MUST BE VERIFIED  
ON ANY ELECTRONIC COPIES.

THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OR ANY IMPROPER RELIANCE ON THE DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC., SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.

*The entirety of this report, including text and images, is the property of Kimley-Horn and Associates, Inc. and is protected under U.S. copyright law. Copyright © 2023, Kimley-Horn and Associates, Inc.*

**BUTTONWOOD - Project 1A**

**Buttonwood Drive and Winslow Place (Reconstuction)**

**DRAFT - CONCEPTUAL LEVEL EXTIMATE**

ITEM	DESCRIPTION	QTY	UNIT	UNIT PRICE	AMOUNT
1	Mobilization	1	LS	\$ 73,500.00	\$ 73,500.00
2	Maintenance of Traffic	1	LS	\$ 73,500.00	\$ 73,500.00
3	Erosion Control	1	LS	\$ 44,100.00	\$ 44,100.00
4	Excavation	610	CY	\$ 13.68	\$ 8,344.80
5	Embankment	280	CY	\$ 25.26	\$ 7,072.80
6	Optional Base, Base Group 6	1,050	CY	\$ 28.03	\$ 29,431.50
7	Asphalt Concrete Friction Course	480	TN	\$ 147.82	\$ 70,953.60
8	Superpave Asphaltic Concrete	480	TN	\$ 109.50	\$ 52,560.00
9	Inlets, Ditch Bottom, Type C, < 10'	13	EA	\$ 5,359.30	\$ 69,670.90
10	Nutrient Seperation Baffle Box	4	EA	\$ 50,000.00	\$ 200,000.00
11	Pipe Culvert, Optional Material, Round, 18" S/CD	1,350	LF	\$ 130.51	\$ 176,188.50
12	Pipe Culvert, Optional Material, Round, 24" S/CD	300	LF	\$ 158.70	\$ 47,610.00
13	Performance Turf (Sod)	1,100	SY	\$ 3.53	\$ 3,883.00
14	Landscape Restoration (Per Lot)	34	EA	\$ 1,500.00	\$ 51,000.00
15	Driveway Restoration (Per Lot)	34	EA	\$ 3,000.00	\$ 102,000.00
16	Utility Adjustments (Per Lot)	34	EA	\$ 1,000.00	\$ 34,000.00
17	Backflow prevention - Marine grade stainless steel	4	EA	\$ 25,000.00	\$ 100,000.00
<b>SUBTOTAL BID PRICE</b>					<b>\$ 1,143,815.10</b>
<b>PLUS CONTINGENCY ALLOWANCE (30% of Subtotal Bid Price)</b>					<b>\$ 343,144.53</b>
<b>TOTAL BID PRICE (Subtotal Bid Price plus 30% Contingency Allowance)</b>					<b>\$ 1,486,959.63</b>

*Disclaimer: The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are based on the information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.*

**BUTTONWOOD - Project 2**

**Ditch Optimization**

**DRAFT - CONCEPTUAL LEVEL EXTIMATE**

ITEM	DESCRIPTION	QTY	UNIT	UNIT PRICE	AMOUNT
1	Mobilization	1	LS	\$ 27,200.00	\$ 27,200.00
2	Maintenance of Traffic	1	LS	\$ 16,300.00	\$ 16,300.00
3	Erosion Control	1	LS	\$ 16,300.00	\$ 16,300.00
4	Excavation	1,100	CY	\$ 13.68	\$ 15,048.00
5	Embankment	1,600	CY	\$ 25.26	\$ 40,416.00
6	Inlets, Ditch Bottom, Type C, < 10'	7	EA	\$ 5,359.30	\$ 37,515.10
7	Nutrient Seperation Baffle Box	1	EA	\$ 50,000.00	\$ 50,000.00
8	Pipe Culvert, Optional Material, Round, 24" S/CD	175	LF	\$ 147.82	\$ 25,868.50
9	Pipe Culvert, Optional Material, Round, 36" S/CD	50	LF	\$ 109.50	\$ 5,475.00
10	Straight Concrete Endwall, 36", Single, 0 Degrees, Round	1	EA	\$ 60,000.00	\$ 60,000.00
11	Performance Turf (Sod)	2,000	SY	\$ 3.53	\$ 7,060.00
12	Saltwater Tollerant Plants	1	LS	\$ 40,000.00	\$ 40,000.00
13	Landscape Restoration (Per Lot)	9	EA	\$ 3,000.00	\$ 27,000.00
14	Backflow prevention - Marine grade stainless steel	1	EA	\$ 50,000.00	\$ 50,000.00
<b>SUBTOTAL BID PRICE</b>					<b>\$ 418,182.60</b>
<b>PLUS CONTINGENCY ALLOWANCE (30% of Subtotal Bid Price)</b>					<b>\$ 125,454.78</b>
<b>TOTAL BID PRICE (Subtotal Bid Price plus 30% Contingency Allowance)</b>					<b>\$ 543,637.38</b>

*Disclaimer: The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are based on the information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.*

**BUTTONWOOD - Project 3**

**Flow Diversion**

**DRAFT - CONCEPTUAL LEVEL ESTIMATE**

ITEM	DESCRIPTION	QTY	UNIT	UNIT PRICE	AMOUNT
1	Mobilization	1	LS	\$ 27,000.00	\$ 27,000.00
2	Maintenance of Traffic	1	LS	\$ 16,200.00	\$ 16,200.00
3	Erosion Control	1	LS	\$ 16,200.00	\$ 16,200.00
4	Excavation	750	CY	\$ 13.68	\$ 10,260.00
5	Embankment	250	CY	\$ 25.26	\$ 6,315.00
6	Flowable Fill	25	CY	\$ 261.31	\$ 6,532.75
7	Optional Base, Base Group 6	24	CY	\$ 28.03	\$ 672.72
8	Milling Existing	350	SY	\$ 2.99	\$ 1,046.50
9	Asphalt Concrete Friction Course	27	TN	\$ 147.82	\$ 3,991.14
10	Superpave Asphaltic Concrete	27	TN	\$ 109.50	\$ 2,956.50
11	Inlets, Ditch Bottom, Type C, < 10'	2	EA	\$ 5,359.30	\$ 10,718.60
12	Manholes, P-8, <10'	3	EA	\$ 7,629.13	\$ 22,887.39
13	Nutrient Separation Baffle Box	1	EA	\$ 50,000.00	\$ 50,000.00
14	Pipe Culvert, Optional Material, Round, 36" S/CD	1,000	LF	\$ 158.70	\$ 158,700.00
15	Performance Turf (Sod)	1,800	SY	\$ 3.53	\$ 6,354.00
16	Bioswale Plantings	1	LS	\$ 25,000.00	\$ 25,000.00
17	Backflow prevention - Marine grade stainless steel	1	EA	\$ 50,000.00	\$ 50,000.00
<b>SUBTOTAL BID PRICE</b>					<b>\$ 414,834.60</b>
<b>PLUS CONTINGENCY ALLOWANCE (30% of Subtotal Bid Price)</b>					<b>\$ 124,450.38</b>
<b>TOTAL BID PRICE (Subtotal Bid Price plus 30% Contingency Allowance)</b>					<b>\$ 539,284.98</b>

*Disclaimer: The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are based on the information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.*