



August 9, 2016

Mr. James Bouquet, P.E.  
Engineering Director  
**CITY OF KEY WEST**  
3140 Flagler Avenue  
Key West, Florida 33040

Subject: **PRELIMINARY WHITE BOX ENGINEER ESTIMATE**  
**KEY WEST DIESEL PLANT PROPERTY**  
101-111 GERALDINE STREET  
KEY WEST, FLORIDA 33040  
AMEC FOSTER WHEELER PROJECT NUMBER 6783-16-2825

Dear Mr. Bouquet

In accordance with our with our proposal dated March 31, 2016, Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler) has prepared a Preliminary White Box Engineer Estimate for the Key West Diesel Plant Property (the Property) located in Key West, Florida. Amec Foster Wheeler understands the City of Key West is considering acquiring a portion of the Key West Diesel Plant Property for redevelopment (the Site). The estimate is based on limited data obtained during the structural and environmental assessments completed in July 2016. The estimate is a preliminary cost that will need to be refined upon completion of additional design analysis not covered under this proposal.

Sincerely,

**AMEC FOSTER WHEELER ENVIRONMENT & INFRASTRUCTURE, INC.**

Greg Corning, P.E.  
Project Engineer

Ricardo Fraxedas, P.E.  
Chief Engineer

**Amec Foster Wheeler E&I, Inc.**  
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# **PRELIMINARY WHITE BOX ENGINEER ESTIMATE**

**PRELIMINARY ENGINEER COST ESTIMATE  
WHITE BOX KEY WEST DIESEL PLANT  
KEY WEST, FLORIDA**

| ITEM NO.                                                                                                               | SUPPLIES/SERVICES                         | ESTIMATED QUANTITY | UNIT | UNIT PRICE   | AMOUNT             |
|------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|--------------------|------|--------------|--------------------|
| 1                                                                                                                      | Demolition of Building II, III, IV, and V | 1                  | LS   | \$435,814.49 | \$435,814          |
| 2                                                                                                                      | White Box of Building I                   | 1                  | LS   | \$329,459.92 | \$329,460          |
| 3                                                                                                                      | Architect and Engineer Design Fees        | 1                  | LS   | \$241,318.60 | \$241,319          |
| <b>Subtotal</b>                                                                                                        |                                           |                    |      |              | <b>\$1,006,593</b> |
| <b>Total White Box Estimate(plus 15% contingency)</b>                                                                  |                                           |                    |      |              | <b>\$1,157,582</b> |
| Notes:                                                                                                                 |                                           |                    |      |              |                    |
| This estimate is based on limited data obtained during structural and environmental assessments completed in July 2016 |                                           |                    |      |              |                    |
| Additional design and sediment analysis will be required to optimize the estimate                                      |                                           |                    |      |              |                    |

Bid Item Quantities and Cost

Project: Keys Energy Diesel Facility Assessment, City of Key West, FL

Prepared by: G.Corning Date: 8/5/2016

Check by: R. Fraxedas Date: 8/8/2016

Bid Item: 1 Demolition of Building II, III, IV, and V

**1. Quantity****A. Building II (See Structural Assessment, Existing Floor Plan S1.1)**

1. Width: 58 FT  
 2. Length: 70 LF  
 3. Height: 30 FT  
 4. Building Demolition: 121,800 CF  
 5. Foundation Demolition: 4,060 SF  
 6. Building Material Weight (estimated unit weight for steel of 150 lb/cu ft): 440 TN  
 7. Scrap Metal Weight (estimated unit weight for steel of 490 lb/cu ft): 735 TN

**B. Building III (See Structural Assessment, Existing Floor Plan S1.1)**

1. Width: 58 FT  
 2. Length: 73 LF  
 3. Height: 30 FT  
 4. Building Demolition: 127,020 CF  
 5. Foundation Demolition: 4,234 SF  
 6. Building Material Weight (estimated unit weight for steel of 150 lb/cu ft): 454 TN

**C. Building IV (See Structural Assessment, Existing Floor Plan S1.1)**

1. Width: 58 FT  
 2. Length: 27 LF  
 3. Height: 30 FT  
 4. Building Demolition: 46,980 CF  
 5. Foundation Demolition: 1,566 SF  
 6. Building Material Weight (estimated unit weight for steel of 150 lb/cu ft): 250 TN  
 7. Scrap Metal Weight (estimated unit weight for steel of 490 lb/cu ft): 559 TN

**D. Building V (See Structural Assessment, Existing Floor Plan S1.1)**

1. Width: 12 FT  
 2. Length: 20 LF  
 3. Height: 12 FT  
 4. Building Demolition: 2,880 CF  
 5. Foundation Demolition: 240 SF

**2. Bid Estimate**

A. Building Demolition \$0.53 per CF  
 Source: RS Means 2016  
 Building demolition, large urban projects, concrete  
 includes 20 mile haul, excludes foundation and dump fees

B. Concrete Footing Demolition \$8.90 per SF  
 Source: homewyse, 2016  
<http://www.homewyse.com/>

C. Tipping Fee \$123.50 per TN  
 Source: Monroe County Transfer Station, 2016

D. Scrap \$70.00 per TN  
 Source: Capital Scrap Metal, LLC, 2016  
<http://www.capitalscrapmetal.com/prices/>

E. Asbestos Removal \$6.67 per SF  
 Source: PM Environmental Inc's Pre-Renovation Survey  
 July 2013

F. Lead Based Paint Removal \$75,000.00 per LS  
 Source: PSI's Lead-Based Paint Survey  
 July 2013

**3. Total Item Cost**

|                                    |             |                    |             |
|------------------------------------|-------------|--------------------|-------------|
| <b>A. Building II</b>              |             |                    |             |
| Building Demolition                | 121800 CF x | \$0.53 per CF      | \$64,554.00 |
| Foundation Demolition              | 4060 SF x   | \$8.90 per SF      | \$36,134.00 |
| Tipping Fee                        | 454 TN x    | \$123.50 per TN    | \$56,010.34 |
| Scrap                              | 735 TN x    | \$70.00 per TN     | \$51,450.00 |
| <b>B. Building III</b>             |             |                    |             |
| Building Demolition                | 127020 CF x | \$0.53 per CF      | \$67,320.60 |
| Foundation Demolition              | 4234 SF x   | \$8.90 per SF      | \$37,682.60 |
| Tipping Fee                        | 454 TN x    | \$123.50 per TN    | \$56,010.34 |
| <b>C. Building IV</b>              |             |                    |             |
| Building Demolition                | 46980 CF x  | \$0.53 per CF      | \$24,899.40 |
| Foundation Demolition              | 1566 SF x   | \$8.90 per SF      | \$13,937.40 |
| Tipping Fee                        | 250 TN x    | \$123.50 per TN    | \$30,871.91 |
| Scrap                              | 559 TN x    | \$70.00 per TN     | \$39,102.00 |
| <b>C. Building V</b>               |             |                    |             |
| Building Demolition                | 2880 CF x   | \$0.53 per CF      | \$1,526.40  |
| Foundation Demolition              | 240 SF x    | \$8.90 per SF      | \$2,136.00  |
| <b>D. Asbestos Removal</b>         |             |                    |             |
|                                    | 2250 SF x   | \$6.67 per SF      | \$15,007.50 |
| <b>E. Lead Based Paint Removal</b> |             |                    |             |
|                                    | 1 LS x      | \$75,000.00 per LS | \$75,000.00 |

**Demolition Cost** \$481,090  
**Scrap Cost (50% return removed for pick-up)** \$45,276  
**Total Demolition Cost** \$435,814

Bid Item Quantities and Cost

Project: Keys Energy Diesel Facility Assessment, City of Key West, FL

Prepared by: G. Corning Date: 8/5/2016

Check by: R. Fraxedas Date: 8/8/2016

Bid Item: 2 White Box Building I

**1. Quantity**

A. Exterior Windows (See Structural Assesment, Existing Floor Plan S1.1) 11 EA

B. Exterior Doors (See Structural Assesment, Existing Floor Plan S1.1) 4 EA

C. Foundation Repair (See Structural Assesment, Existing Floor Plan S1.1) 75 CY

D. Brick Veneer Repair (See Structural Assesment, Existing Floor Plan S1.1) 7680 SF

**2. Bid Estimate**

A. Exterior Windows \$572 per EA  
Source: Astor Windows & Doors, 2016

B. Exterior Doors \$1,125 per EA  
Source: Home Depot, 2016  
36" x 80" Impact Front Door

C. Foundation Repair \$2,600 per CY  
Source: FDOT 6 month moving average (01/01/16 to 06/30/16)  
Concrete for Joint Repair

D. Brick Veneer Repair \$16.04 per SF  
Source: IRS, 2016

**3. Total Cost**

|                        |                  |                          |                         |
|------------------------|------------------|--------------------------|-------------------------|
| A. Exterior Windows    | <u>11</u> EA x   | <u>\$572.00</u> per EA   | <u>\$6,292.00</u>       |
| B. Exterior Doors      | <u>4</u> EA x    | <u>\$1,124.81</u> per EA | <u>\$4,499.24</u>       |
| C. Foundation Repair   | <u>75</u> CY x   | <u>\$2,600.00</u> per CY | <u>\$195,481.48</u>     |
| D. Brick Veneer Repair | <u>7680</u> SF x | <u>\$16.04</u> per SF    | <u>\$123,187.20</u>     |
| <b>Total Cost</b>      |                  |                          | <b><u>\$329,460</u></b> |

Bid Item Quantities and Cost

|              |                                                                     |                     |                 |
|--------------|---------------------------------------------------------------------|---------------------|-----------------|
| Project:     | <u>Keys Energy Diesel Facility Assessment, City of Key West, FL</u> |                     |                 |
| Prepared by: | <u>G.Corning</u>                                                    | Date:               | <u>8/5/2016</u> |
| Check by:    | <u>R. Fraxedas</u>                                                  | Date:               | <u>8/8/2016</u> |
| Bid Item:    | <u>3</u>                                                            | <u>A&amp;E Fees</u> |                 |

**1. Bid Estimate**

|                                         |                 |                                     |
|-----------------------------------------|-----------------|-------------------------------------|
| A. Architect and Engineer Fee           | <u>25%</u>      | Project                             |
|                                         |                 | RS Means, 2016                      |
| B. Soil and Groundwater Management Plan | <u>\$50,000</u> | Project                             |
|                                         |                 | Environmental Assessment, July 2016 |

**2. Total Cost**

|                                         |                   |           |                   |             |                         |
|-----------------------------------------|-------------------|-----------|-------------------|-------------|-------------------------|
| A. Architect & Engineer Fee             | <u>765,274.41</u> | Project x | <u>25.00%</u>     | per project | <u>\$191,318.60</u>     |
| B. Soil and Groundwater Management Plan | <u>1.00</u>       | Project x | <u>\$50,000</u>   | per project | <u>\$50,000.00</u>      |
|                                         |                   |           | <b>Total Cost</b> |             | <b><u>\$241,319</u></b> |