

| ITEM # | REF. SHEET | DETAIL | CSI SECT | DESCRIPTION | QTY. | WASTAGE | QTY WITH WASTAGE | UNIT | UNIT LABOR COST | TOTAL LABOR COST | UNIT MATERIAL COST | TOTAL MATERIAL COST | ITEM COST | TRADE COST |
|--------|------------|--------|----------|-------------|------|---------|------------------|------|-----------------|------------------|--------------------|---------------------|-----------|------------|
|--------|------------|--------|----------|-------------|------|---------|------------------|------|-----------------|------------------|--------------------|---------------------|-----------|------------|

**Estimate of Materials and Cost of Construction**

Date: 8/20/2020  
 Project: CITY OF PEARLAND, SURFACE WATER TREATMENT PLANT-PACKAGE 3  
 Project Location: 3720 COUNTRY ROAD 48, ROSHARON, TX 77583

| Summary         | Amount     |
|-----------------|------------|
| Subtotal        | \$ 275,240 |
| Profit/Overhead | \$ 68,810  |
| Total           | \$ 344,050 |

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|--------------------------------|-------------|--------|----------|---|--------|---------|------------------|------|-------------------|------------------|--------------------|---------------------|------------|------------|
| <b>DIV-01 GENERAL</b>          |             |        |          |   |        |         |                  |      |                   |                  |                    |                     |            | \$ -       |
| 1                              |             |        |          | Permit  | 1      | 0%      | 1                | LS   | -                 |                  |                    |                     | -          |            |
| 2                              |             |        |          | Supervision                                   | 1      | 0%      | 1                | LS   | -                 |                  |                    |                     | -          |            |
| 3                              |             |        |          | Final Cleanup                                 | 1      | 0%      | 1                | LS   | -                 |                  |                    |                     | -          |            |
| 4                              |             |        |          | Mobilization Cost                             | 1      | 0%      | 1                | LS   | -                 |                  |                    |                     | -          |            |
| 5                              |             |        |          | Project Overheads                             | 1      | 0%      | 1                | LS   | -                 |                  |                    |                     | -          |            |
| 6                              |             |        |          | Bonds   | 1      | 0%      | 1                | LS   | -                 |                  |                    |                     | -          |            |
| 7                              |             |        |          | Fees (Architect & Engineer)                   | 1      | 0%      | 1                | LS   | -                 |                  |                    |                     | -          |            |
| 8                              |             |        |          | Temporary Control & Facilities                | 1      | 0%      | 1                | LS   | -                 |                  |                    |                     | -          |            |
| <b>DIV-05 METALS</b>           |             |        |          |   |        |         |                  |      |                   |                  |                    |                     |            | \$ 275,240 |
| <b>Door Jamb</b>               |             |        |          |   |        |         |                  |      |                   |                  |                    |                     |            |            |
| 9                              | IA501       | IA511  |          | (2) (20GA,0.036"min) steel studs @ door jambs | 708    | 5%      | 744              | LF   | \$ 1.6            | \$ 1,190.4       | \$ 0.4             | \$ 297.6            | \$ 1,488   |            |
| 10                             |             |        |          | (20GA,0.036"min) runner track @ door heads    | 109    | 5%      | 115              | LF   | \$ 0.9            | \$ 103.5         | \$ 0.8             | \$ 92.0             | \$ 196     |            |
| <b>Roof Framing</b>            |             |        |          |   |        |         |                  |      |                   |                  |                    |                     |            |            |
| <b>Beams</b>                   |             |        |          |   |        |         |                  |      |                   |                  |                    |                     |            |            |
| 11                             |             |        |          | W27x84 beam(112LF)                            | 9,408  | 5%      | 9,879            | lbs. | \$ 2.2            | \$ 21,733.8      | \$ 0.8             | \$ 7,903.2          | \$ 29,637  |            |
| 12                             |             |        |          | W16x31 beam(40LF)                             | 1,240  | 5%      | 1,302            | lbs. | \$ 2.2            | \$ 2,864.4       | \$ 0.8             | \$ 1,041.6          | \$ 3,906   |            |
| 13                             |             |        |          | W12x14 beam(160LF)                            | 1,920  | 5%      | 2,016            | lbs. | \$ 2.2            | \$ 4,435.2       | \$ 0.8             | \$ 1,612.8          | \$ 6,048   |            |
| 14                             |             |        |          | W10x22 beam(34LF)                             | 748    | 5%      | 786              | lbs. | \$ 2.2            | \$ 1,729.2       | \$ 0.8             | \$ 628.8            | \$ 2,358   |            |
| 15                             |             |        |          | W12x19 beam(123LF)                            | 2,337  | 5%      | 2,454            | lbs. | \$ 2.2            | \$ 5,398.8       | \$ 0.8             | \$ 1,963.2          | \$ 7,362   |            |
| 16                             |             |        |          | W18x40 beam(41LF)                             | 1,640  | 5%      | 1,722            | lbs. | \$ 2.2            | \$ 3,788.4       | \$ 0.8             | \$ 1,377.6          | \$ 5,166   |            |
| 17                             |             |        |          | W21x50 beam(42LF)                             | 2,100  | 5%      | 2,205            | lbs. | \$ 2.2            | \$ 4,851.0       | \$ 0.8             | \$ 1,764.0          | \$ 6,615   |            |
| 18                             |             |        |          | W12x22 beam(96LF)                             | 2,112  | 5%      | 2,218            | lbs. | \$ 2.2            | \$ 4,879.6       | \$ 0.8             | \$ 1,774.4          | \$ 6,654   |            |
| 19                             |             |        |          | W12x26 beam(56LF)                             | 1,456  | 5%      | 1,529            | lbs. | \$ 2.2            | \$ 3,363.8       | \$ 0.8             | \$ 1,223.2          | \$ 4,587   |            |
| 20                             |             |        |          | W10x12 beam(167LF)                            | 2,004  | 5%      | 2,105            | lbs. | \$ 2.2            | \$ 4,631.0       | \$ 0.8             | \$ 1,684.0          | \$ 6,315   |            |
| 21                             |             |        |          | W10x22 beam(142LF)                            | 3,124  | 5%      | 3,281            | lbs. | \$ 2.2            | \$ 7,218.2       | \$ 0.8             | \$ 2,624.8          | \$ 9,843   |            |
| 22                             |             |        |          | W12x16 beam(17LF)                             | 272    | 5%      | 286              | lbs. | \$ 2.2            | \$ 629.2         | \$ 0.8             | \$ 228.8            | \$ 858     |            |
| 23                             |             |        |          | W16x26 beams(48LF)                            | 1,248  | 5%      | 1,311            | lbs. | \$ 2.2            | \$ 2,884.2       | \$ 0.8             | \$ 1,048.8          | \$ 3,933   |            |
| 24                             |             |        |          | W8x15 beam(10LF)                              | 150    | 5%      | 158              | lbs. | \$ 2.2            | \$ 347.6         | \$ 0.8             | \$ 126.4            | \$ 474     |            |
| 25                             |             |        |          | W14x22 beam(71LF)                             | 1,562  | 5%      | 1,641            | lbs. | \$ 2.2            | \$ 3,610.2       | \$ 0.8             | \$ 1,312.8          | \$ 4,923   |            |
| 26                             |             |        |          | W12x14 low roof beam(70LF)                    | 980    | 5%      | 1,029            | lbs. | \$ 2.2            | \$ 2,263.8       | \$ 0.8             | \$ 823.2            | \$ 3,087   |            |
| 27                             |             |        |          | W8x10 beam(8LF)                               | 80     | 5%      | 84               | lbs. | \$ 2.2            | \$ 184.8         | \$ 0.8             | \$ 67.2             | \$ 252     |            |
| 28                             |             |        |          | W16x26 low roof beam(18LF)                    | 468    | 5%      | 492              | lbs. | \$ 2.2            | \$ 1,082.4       | \$ 0.8             | \$ 393.6            | \$ 1,476   |            |
| 29                             |             |        |          | W10x12 low roof beam(38LF)                    | 456    | 5%      | 479              | lbs. | \$ 2.2            | \$ 1,053.8       | \$ 0.8             | \$ 383.2            | \$ 1,437   |            |
| <b>Steel Joists</b>            |             |        |          |   |        |         |                  |      |                   |                  |                    |                     |            |            |
| 30                             |             |        |          | 40LH250/100 steel joist                       | 904    | 5%      | 949              | LF   | \$ 1.9            | \$ 1,803.1       | \$ 3.3             | \$ 3,131.7          | \$ 4,935   |            |
| 31                             |             |        |          | 40LH250/100SP steel joists                    | 229    | 5%      | 240              | LF   | \$ 1.9            | \$ 456.0         | \$ 3.3             | \$ 792.0            | \$ 1,248   |            |
| 32                             |             |        |          | 16K3 steel joists                             | 64     | 5%      | 68               | LF   | \$ 2.0            | \$ 136.0         | \$ 4.3             | \$ 292.4            | \$ 428     |            |
| 33                             |             |        |          | 18K4 steel joists                             | 313    | 5%      | 329              | LF   | \$ 2.3            | \$ 756.7         | \$ 5.0             | \$ 1,645.0          | \$ 2,402   |            |
| 34                             |             |        |          | 10KCS1 steel joists                           | 24     | 5%      | 26               | LF   | \$ 1.5            | \$ 39.0          | \$ 2.8             | \$ 72.8             | \$ 112     |            |
| 35                             |             |        |          | 14K1 steel joists                             | 20     | 5%      | 22               | LF   | \$ 1.8            | \$ 39.6          | \$ 3.2             | \$ 70.4             | \$ 110     |            |
| 36                             |             |        |          | 16K4 steel joists                             | 25     | 5%      | 27               | LF   | \$ 2.0            | \$ 54.0          | \$ 4.3             | \$ 116.1            | \$ 170     |            |
| 37                             | IS103-IS104 | IS609  |          | 20K4 steel joists                             | 195    | 5%      | 205              | LF   | \$ 2.5            | \$ 512.5         | \$ 5.5             | \$ 1,127.5          | \$ 1,640   |            |
| 38                             |             | IS610  |          | 10K1 steel joists                             | 79     | 5%      | 84               | LF   | \$ 1.5            | \$ 126.0         | \$ 2.8             | \$ 235.2            | \$ 361     |            |
| 39                             |             |        |          | L4x3x5/16 steel angle @ precast panel beam    | 16     | 5%      | 17               | LF   | \$ 3.5            | \$ 59.5          | \$ 2.0             | \$ 34.0             | \$ 94      |            |
| 40                             |             |        |          | (2) L4x3x5/16 at roof opening                 | 24     | 5%      | 26               | LF   | \$ 6.2            | \$ 161.2         | \$ 3.3             | \$ 85.8             | \$ 247     |            |
| 41                             |             |        |          | L6x6x5/16 at CMU wall                         | 45     | 5%      | 48               | LF   | \$ 5.5            | \$ 264.0         | \$ 3.6             | \$ 172.8            | \$ 437     |            |
| 42                             |             |        |          | L6x4x3/8 angle steel at walls                 | 401    | 5%      | 422              | LF   | \$ 4.4            | \$ 1,856.8       | \$ 2.3             | \$ 970.6            | \$ 2,827   |            |
| <b>Steel Deck</b>              |             |        |          |   |        |         |                  |      |                   |                  |                    |                     |            |            |
| 43                             |             |        |          | 1.0-22 Steel roof deck                        | 11,842 | 5%      | 12,435           | SF   | \$ 1.9            | \$ 23,626.5      | \$ 3.7             | \$ 46,009.5         | \$ 69,636  |            |
| <b>Steel Columns</b>           |             |        |          |   |        |         |                  |      |                   |                  |                    |                     |            |            |
| 44                             |             |        |          | Pipe6STD steel column(17'5"H)                 | 529    | 5%      | 556              | lbs. | \$ 2.3            | \$ 1,278.8       | \$ 0.8             | \$ 444.8            | \$ 1,724   |            |
| 45                             |             |        |          | HSS6x6x1/4 steel column(17'5"H)               | 5,301  | 5%      | 5,567            | lbs. | \$ 2.3            | \$ 12,804.1      | \$ 0.8             | \$ 4,453.6          | \$ 17,258  |            |
| 46                             |             |        |          | HSS5x5x1/4 steel column(14'5"H)               | 225    | 5%      | 237              | lbs. | \$ 2.3            | \$ 545.1         | \$ 0.8             | \$ 189.6            | \$ 735     |            |
| 47                             |             |        |          | HSS8x8x5/16 steel column(26'5"H)              | 11,777 | 5%      | 12,366           | lbs. | \$ 2.3            | \$ 28,441.8      | \$ 0.8             | \$ 9,892.8          | \$ 38,335  |            |
| 48                             |             |        |          | Pipe6STD steel column(14'5"H)                 | 219    | 5%      | 230              | lbs. | \$ 2.3            | \$ 529.0         | \$ 0.8             | \$ 184.0            | \$ 713     |            |
| 49                             |             |        |          | (3/4") base plate for HSS steel columns       | 31     | 0%      | 31               | EA   | \$ 12.3           | \$ 382.2         | \$ 33.2            | \$ 1,029.2          | \$ 1,411   |            |
| <b>Bracing</b>                 |             |        |          |   |        |         |                  |      |                   |                  |                    |                     |            |            |
| 50                             |             |        |          | L3x3x1/4 steel angle for bracing              | 314    | 5%      | 330              | LF   | \$ 1.8            | \$ 594.0         | \$ 3.2             | \$ 1,056.0          | \$ 1,650   |            |
| <b>Miscellaneous</b>           |             |        |          |   |        |         |                  |      |                   |                  |                    |                     |            |            |
| 51                             |             |        |          | (2) Cont. 5/16" bent plate                    | 963    | 5%      | 1,012            | LF   | \$ 3.3            | \$ 3,339.6       | \$ 11.2            | \$ 11,334.4         | \$ 14,674  |            |
| 52                             |             |        |          | Install bollards 2 slab                       | 9      | 0%      | 9                | EA   | \$ 65.7           | \$ 590.9         | \$ 320.0           | \$ 2,880.0          | \$ 3,471   |            |
| <b>Area divider ref F4/311</b> |             |        |          |   |        |         |                  |      |                   |                  |                    |                     |            |            |
| 53                             |             |        |          | (2) cont. (2x6) PT wood blocking w/ cant      | 61     | 5%      | 65               | LF   | \$ 1.8            | \$ 117.0         | \$ 0.5             | \$ 32.5             | \$ 150     |            |
| 54                             |             |        |          | (2) cont. (2x12) PT wood blocking             | 61     | 5%      | 65               | LF   | \$ 2.0            | \$ 130.0         | \$ 0.7             | \$ 45.5             | \$ 176     |            |
| 55                             |             |        |          | (2) bent plates                               | 61     | 5%      | 65               | LF   | \$ 3.3            | \$ 214.5         | \$ 6.7             | \$ 435.5            | \$ 650     |            |
| 56                             |             |        |          | Cont. (3-1/2"x4-1/2"x16GA) CFMF angle         | 61     | 5%      | 65               | LF   | \$ 5.4            | \$ 351.0         | \$ 16.7            | \$ 1,085.5          | \$ 1,437   |            |
| 57                             |             |        |          | Base flashing on both sides                   | 61     | 5%      | 65               | LF   | \$ 3.4            | \$ 221.0         | \$ 1.5             | \$ 97.5             | \$ 319     |            |
| 58                             |             |        |          | Casketed fasteners both sides @ 16"OC         | 92     | 5%      | 97               | EA   | \$ 0.7            | \$ 67.9          | \$ 0.2             | \$ 19.4             | \$ 87      |            |
| 59                             |             |        |          | Sheet metal area divider cover                | 61     | 5%      | 65               | LF   | \$ 2.4            | \$ 156.0         | \$ 5.8             | \$ 377.0            | \$ 533     |            |
| <b>Roof ladder</b>             |             |        |          |   |        |         |                  |      |                   |                  |                    |                     |            |            |
| 60                             | IA-151      |        |          | (9'-6") roof ladder                           | 1      | 0%      | 1                | EA   | \$ 35.0           | \$ 35.0          | \$ 190.0           | \$ 190.0            | \$ 225     |            |
| 61                             |             |        |          | 4" long clip                                  | 1      | 0%      | 1                | EA   | \$ 1.3            | \$ 1.3           | \$ 0.4             | \$ 0.4              | \$ 2       |            |
| 62                             |             |        |          | (3x3x1/4") fir. Bracket                       | 1      | 0%      | 1                | EA   | \$ 2.5            | \$ 2.5           | \$ 5.7             | \$ 5.7              | \$ 8       |            |
| 63                             |             |        |          | (1-1/2"x3/16"thk.) vertical bars              | 1      | 0%      | 1                | EA   | \$ 2.6            | \$ 2.6           | \$ 1.2             | \$ 1.2              | \$ 4       |            |
| 64                             | IA152       |        |          | (18'-5") roof ladder                          | 1      | 0%      | 1                | EA   | \$ 65.0           | \$ 65.0          | \$ 345.0           | \$ 345.0            | \$ 410     |            |
| 65                             |             |        |          | 4" long clip                                  | 1      | 0%      | 1                | EA   | \$ 1.3            | \$ 1.3           | \$ 0.4             | \$ 0.4              | \$ 2       |            |
| 66                             |             |        |          | (3x3x1/4") fir. Bracket                       | 1      | 0%      | 1                | EA   | \$ 2.5            | \$ 2.5           | \$ 5.7             | \$ 5.7              | \$ 8       |            |
| <b>SUB TOTAL</b>               |             |        |          |   |        |         |                  |      | Total Lab. Cost = | \$ 158,007       | Total Mat. Cost =  | \$ 117,233          | \$ 275,240 | \$ 275,240 |
| <b>INSURANCE</b>               |             |        |          |   |        |         |                  |      | 0%                |                  |                    |                     | \$ -       | \$ -       |
| <b>OVERHEAD AND PRO</b>        |             |        |          |   |        |         |                  |      | 25%               |                  |                    |                     | \$ 68,810  | \$ 68,810  |
| <b>TOTAL BASE BID</b>          |             |        |          |   |        |         |                  |      |                   |                  |                    |                     | \$ 344,050 | \$ 344,050 |