Date: 2/8/19

# Cost Proposal 

Jim Wingate
Project Coordinator
Construction \& Development
Department of Aviation
Re: SAIA - Sandau Roof Replacement
Owner:
Owner's Representative:
Contractor:
Project Manager:
RFP No.:

San Antonio International Airport<br>Jim Wingate<br>Alpha Building Corporation<br>Amy Bricker<br>181205-01

This Proposal is offered as set forth in the terms and conditions of the contract and the statement of work as amended by a more detailed statement of work attached.

1. All work shall be performed in accordance with the Request for Proposal No. 181205-01
2. Furnish materials, equipment, labor, and supervision as required to complete the scope of work listed below:

## a. LOWER ROOF AREA

i. Lower Roof Area :

1. Sweep off loose gravel and debris.
2. Remove built up roofing down to light weight concrete decking.
3. Install $1 / 2 "$ tapered crickets in between the roof drains.
4. Mechanically fasten one (1) layer of $1 / 2 "$ DensDeck Prime cover board to light weight concrete deck.
5. Install a white reinforced TPO Membrane System as per the manufacturer's requirements.
6. The system will consist of one (1) layer of 60 MIL reinforced TPO membrane fully adhered to the cover board. The edges will be lapped a minimum of 3 " and will be hot air welded in place.
ii. DETAIL A- (Edge Metal):
7. Install $1 / 2^{\prime \prime} \times 6$ " CDX plywood nailer to match the new existing height of the roof system.
8. Install 24-gauge galvanized gravel guard.
9. Strip gravel guard in with 8 " TPO Strips.
iii. DETAIL B- (Parapet Walls where Lower \& Upper Roofs Meet):
10. Install $1 / 2 " \times 12$ CDX plywood at parapet walls.
11. Install 12 " TPO flashing same thickness as membrane at parapet walls. Secure top of flashing (except at small projections) with termination bar and 24-gauge galvanized surface mounted counter flashing.
iv. DETAIL C- (Parapet Walls with Coping Cap):
12. Install $1 / 2$ "x 18 " CDX plywood at parapet walls.
13. Install 18 " TPO flashing same thickness as membrane at parapet walls. Secure top of flashing (except at small projections) with termination bar and 24- gauge galvanized coping cap with plates.
v. CURBS \& PENETRATIONS:
14. Install TPO curb flashing same thickness as membrane at curbs. Secure top of flashing with termination bar and 24gauge galvanized $\mathrm{A} / \mathrm{C}$ counter flashing.
15. Re-flash all jacks, pipes, and penetrations.
16. Install TPO walk-pads at roof hatch and service side of A/C units.
17. Install PPH-PP-10 pipe supports to replace existing.

## b. UPPER ROOF AREA:

i. Upper Roof Area

1. Sweep off loose gravel and debris.
2. Tear off existing built up roofing down to concrete decking.
3. Prime concrete deck with Vapor Retarder Primer.
4. Install one (1) layer of self-adhering vapor barrier.
5. In low-rise foam install $1 / 2$ " tapered crickets in between the roof drains.
6. In low-rise foam loose lay one (1) layer of $1 / 2 "$ DensDeck Prime cover board to light weight concrete deck.
7. Install a white reinforced TPO Membrane System as per the manufacturer's requirements.
8. The system will consist of one (1) layer of 60 MIL reinforced TPO membrane fully adhered to cover board. The edges will be lapped a minimum of 3 " and will be hot air welded in place.
ii. DETAIL A- (Edge Metal):
9. Install $1 / 2^{\prime \prime} \times 6$ " CDX plywood nailer to match the new existing height of the roof system.
10. Install 24 -gauge galvanized gravel guard. Strip gravel with $8^{\prime \prime}$ TPO strips.
iii. DETAIL C- (Parapet Walls with Coping Cap):
11. Install $1 / 2 " \times 18 "$ CDX plywood at parapet walls.
12. Install $18^{\prime \prime}$ TPO flashing same thickness as membrane at parapet walls. Secure top of flashing (except at small projections) with termination bar and 24-gauge galvanized coping cap with plates.

## c. CURBS \& PENETRATIONS:

i. Install TPO curb flashing same thickness as membrane at curbs. Secure top of flashing with termination bar and 24-gauge galvanized $\mathrm{A} / \mathrm{C}$ counter flashing.
ii. Re-flash all jacks, pipes, and penetrations.
iii. Install TPO walk-pads at service side of $\mathrm{A} / \mathrm{C}$ units.
iv. Install PPH-PP-10 pipe supports to replace existing.

## d. CANOPY ROOF AREAS:

i. Canopy Roof Areas

1. Sweep off loose gravel and debris.
2. Remove built-up roofing membrane to light weight concrete decking.
3. Mechanically fasten one (1) layer of $1 / 2$ " DensDeck Prime cover board to light weight concrete deck.
4. Install a white reinforced TPO Membrane System as per the manufacturer's requirements.
5. The system will consist of one (1) layer of 60 MIL reinforced TPO membrane fully adhered to the cover board. The edges will be lapped a minimum of 3 " and will be hot air welded in place
ii. DETAIL A- (Edge Metal):
6. Install $1 / 2^{\prime \prime} \times 6$ " CDX plywood nailer to match the new existing height of the roof system.
7. Install 24-gauge galvanized gravel guard. Strip gravel guard in with 8 " TPO strips.
8. The current wage decision is included in this proposal.
9. No other job related requirements are acknowledged or included in this offer

## Assumptions \& Clarifications

1. No handling or disposal of hazardous materials.
2. Work to be performed during standard working hours Monday through Friday.
3. We exclude evenings, weekends and holidays.
4. We exclude all unforeseen conditions.
5. Any additional work/deficiencies discovered after removal of the existing roof will need to be evaluated and prices separately.
6. Beldon's (2) year Limited Warranty is included.
7. Manufacturer's (20) year limited "NDL" warranty is included.
8. Beldon does not perform any design calculations on existing conditions and will not bring existing items up to code if it is a remove and replace.

Projected scheduled time frame: 5 Weeks

Cost:

Bond:

Total Cost:

Respectfully,
Amy Bricker
Amy Bricker, Project Manager
Alpha Building Corporation
Attached: RS MEANS BUILDING CORPORATION

## Estimator: Amy Bricker

Summary of tagged estimates..



| Estimator: Amy Bricker |  |  |  |  | Combined estimates... |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Item | Description | UM | Quantity | Unit Cost | Total Book |  |
| 01-General Requirements |  |  |  |  |  |  |  |
|  | 01-31-13-20-0020 | Field personnel, clerk, average | Week | 2.0000 | \$780.00 | $\$ 1,560.00 \underset{\text { L, O\&P }}{\text { RSM18eFAC }}$ | P |
| 2 | 01-31-13-20-0220 | Field personnel, project manager, maximum | Week | 1.5000 | \$4,500.00 | $\$ 6,750.00 \underset{\text { L, O\&P }}{\text { RSM18eFAC }}$ | P |
|  | 01-31-13-20-0280 | Field personnel, superintendent, maximum | Week | 4.5000 | \$4,175.00 | $\$ 18,787.50 \underset{\text { L, O\&P }}{\text { LSM18eFAC }}$ | P |
| 4 | 01-54-23-80-5010 | Staging aids, and fall protection equipment, installation, setup and removal of staging aids, sidewall staging bracket | Ea. | 30.0000 | \$20.50 | $\$ 615.00 \underset{\text { L, O\&P }}{\text { RSM18eFAC }}$ | P |
| 5 | 01-54-23-80-5020 | Staging aids, and fall protection equipment, installation, setup and removal of staging aids, sidewall staging, guard post with 2 wood rails | Ea. | 30.0000 | \$20.50 | $\$ 615.00$ RSM18eFAC <br> L, O\&P | P |
|  | 01-54-33-40-0070-2 | Rent per day for general equipment rental, without operators, aerial lift, articulating boom, diesel, to 45 high, 500 lb . capacity | Ea. | 20.0000 | \$300.30 | \$6,006.00 RSM18eFAC <br> E, O\&P | P |
|  | 01-54-33-40-6410-3 | Rent per week for general equipment rental, without operators, toilet, portable chemical | Ea. | 20.0000 | \$72.60 | \$1,452.00 RSM18eFAC <br> E, O\&P | P |
|  | 01-54-36-50-1300 | Mobilization, up to 25 mile haul distance, 50 miles round trip for mobilization or demobilization crew, equipment hauled on towed trailer, 3-ton capacity Mobilization and demobilization of material and equipment | Ea. | 2.0000 | \$305.00 | $\$ 610.00$ RSM18eFAC <br> L, E, O\&P | P |
|  |  | 01 - General Requirements Total |  |  |  | \$36,3 |  |
| 02 - Existing Conditions |  |  |  |  |  |  |  |
|  | 02-41-19-19-0840 | Selective demolition, rubbish handling, the following are to be added to the demolition prices. Dumpster, weekly rental, includes one dump per week, 40 C.Y. capacity, 10 tons 5 pulls | Week | 5.0000 | \$850.00 | $\underset{\text { M, O\&P }}{\$ 4,250.00}$ | P |
|  | 02-41-19-20-0100 | Selective demolition, dump charges, typical urban city, tipping fees only, building construction materials | Ton | 15.0000 | \$81.00 | $\begin{gathered} \$ 1,215.00 \\ \left.\begin{array}{c} \text { RSM18eFAC O\&P } \\ \text { RSM } \end{array}\right) \end{gathered}$ | P |
|  |  | 02 - Existing Conditions Total |  |  |  | \$5, |  |
| 06 - Wood, Plastics, and Composites |  |  |  |  |  |  |  |
|  | 06-11-10-24-5100 | Miscellaneous framing, nailers, treated, wood construction, 2" $\times 6$ " Deatail a - CDX plywood nailer Lower Roof Area | L.F. | 284.0000 | \$2.57 |  | P |
|  | 06-11-10-24-5100 | Miscellaneous framing, nailers, treated, wood construction, 2" $\times 6$ " Detail A - CDX plywood nailer <br> Upper Roof Area | L.F. | 175.0000 | \$2.57 | $\$ 449.75 \underset{\text { M, L, } \mathrm{O}, ~ \mathrm{OPP}}{\mathrm{RSM18FAC}}$ | P |


| Estimator: Amy Bricker |  |  |  |  | Combined estimates... |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 06 - Wood, Plastics, and Composites |  |  |  |  |  |  |  |
|  | Item | Description | UM | Quantity | Unit Cost | Total Book |  |
| 13 | 06-11-10-24-5100 | Miscellaneous framing, nailers, treated, wood construction, 2" x 6" <br> Detail A <br> Canopy Roof Area | L.F. | 60.0000 | \$2.57 | \$154.20 RSM18eFAC $\mathrm{M}, \mathrm{L}$, O\&P | P |
| 14 | 06-11-10-30-5800 | Roof framing, ridge board, \#2 or better, 1 " $\times 6$ " <br> Roof crickets - tapred - between roof drains | L.F. | 1,372.0000 | \$3.05 | \$4,184.60 RSM18eFAC $\mathrm{M}, \mathrm{L}$, O\&P | P |
| 15 | 06-16-36-10-0102 | Sheathing, plywood on roofs, CDX, 1/2" thick <br> Detail B - parapet wall where lower and upper roof meet Lower Roof Area | S.F. | 150.0000 | \$1.62 | $\$ 243.00$ RSM18eFAC <br> $\mathrm{M}, \mathrm{L}, \quad \mathrm{O} \&$ | P |
| 16 | 06-16-36-10-0102 | Sheathing, plywood on roofs, CDX, 1/2" thick Detail c - CDX Plywood at Parapet Walls Lower Roof Area | S.F. | 134.5000 | \$1.62 | \$217.89 RSM18eFAC $\mathrm{M}, \mathrm{L}, \quad \mathrm{O}$ P | P |
| 17 | 06-16-36-10-0102 | Sheathing, plywood on roofs, CDX, 1/2" thick Detail C-CDX Plywood at Parapet walls Upper Roof Area | S.F. | 197.5000 | \$1.62 | \$319.95 RSM18eFAC $\mathrm{M}, \mathrm{L}, \mathrm{O} \mathrm{P}$ | P |
|  |  | 06 - Wood, Plastics, and Composites Total |  |  |  |  |  |
| 07 - Thermal and Moisture Protection |  |  |  |  |  |  |  |
| 18 | 07-05-05-10-3720 | Selective demolition, thermal and moisture protection, roofing, built5 ply, with gravel Remove built up roof down to lightweight concrete decking Lower Roof Area | S.F. | 6,948.0000 | \$2.94 | $\$ 20,427.12 \underset{\mathrm{~L}, \mathrm{O} \mathrm{\& P}}{\mathrm{RSM} 18 \mathrm{PAC}}$ | P |
| 19 | 07-05-05-10-3720 | Selective demolition, thermal and moisture protection, roofing, built5 ply, with gravel <br> Tear off existing built up roof down to concrete deck <br> Upper Roof Area | S.F. | 4,284.0000 | \$2.94 | $\$ 12,594.96 \underset{\mathrm{~L}, \mathrm{O} \& \mathrm{P}}{\mathrm{RSM} 18 \mathrm{eFAC}}$ | P |
| 20 | 07-05-05-10-3720 | Selective demolition, thermal and moisture protection, roofing, built5 ply, with gravel Remove built up roofing membrane to light weight concrete deck Canopy Roof Area |  | 146.0000 | \$2.94 | \$429.24 RSM18eFAC <br> L, O\&P | P |
| 21 | 07-05-05-10-3725 | Selective demolition, thermal and moisture protection, roofing, built gravel removal | S.F. | 6,948.0000 | \$0.52 | $\underset{\text { L, O\&P }}{\$ 3,612.96}$ | P |



| Estimator: Amy Bricker |  |  |  |  |  | Combined estimates... |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 07 - Thermal and Moisture Protection |  |  |  |  |  |  |  |  |
|  | Item | Description | UM | Quantity | Unit Cost | Total | Book |  |
| 31 | 07-54-23-10-0200 | Thermoplastic polyolefin roofing (T.P.O.), 60 mil membrane, heat welded seams, fully adhered <br> Detail B-12" TPO flashing at parapet walls <br> Lower Roof Area |  | 1.5000 | \$221.00 | $\$ 331.50$ | 0 RSM18eFAC M, L, E, O\&P | P |
| 32 | 07-54-23-10-0200 | Thermoplastic polyolefin roofing (T.P.O.), 60 mil membrane, heat welded seams, fully adhered <br> Detail A-8" strips at gravel guard <br> Lower Roof Area | Sq. | 1.8600 | \$221.00 | $\$ 411.06$ | 6 RSM18eFAC $\mathrm{M}, \mathrm{L}, \mathrm{E}, \quad \mathrm{O} \&$ | P |
| 33 | 07-54-23-10-0200 | Thermoplastic polyolefin roofing (T.P.O.), 60 mil membrane, heat welded seams, fully adhered <br> Detail C-18" TPO flashing at parapet walls <br> Lower Roof Area |  | 1.3450 | \$221.00 | $\$ 297.25$ | 5 RSM18eFAC $\mathrm{M}, \mathrm{L}, \mathrm{E}, \quad \mathrm{O} \& \mathrm{P}$ | P |
| 34 | 07-54-23-10-0200 | Thermoplastic polyolefin roofing (T.P.O.), 60 mil membrane, heat welded seams, fully adhered <br> Detail C-18" TPO flashing at parapet wall <br> Canopy Roof Area | Sq. | 1.8750 | \$221.00 | $\$ 414.38$ | $\begin{aligned} & 8 \text { RSM18eFAC } \\ & \mathrm{M}, \mathrm{~L}, \mathrm{E}, \mathrm{O} \text { \& } \end{aligned}$ | P |
| 35 | 07-54-23-10-0200 | Thermoplastic polyolefin roofing (T.P.O.), 60 mil membrane, heat welded seams, fully adhered walk pads at service side of AC units | Sq. | 3.0000 | \$221.00 | $\$ 663.00$ | $\begin{aligned} & 0 \text { RSM18eFAC } \\ & \text { M, L, E, O\&P } \end{aligned}$ | P |
| 36 | 07-65-10-10-9324 | Sheet metal flashing and counter flashing, including up to 4 bends, steel sheets, galvanized, 24 gauge <br> Detail B-counter flashing at parapet walls <br> Lower Roof Area | S.F. | 140.0000 | \$5.55 | $\$ 777.00$ | 0 RSM18eFAC M, L, O\&P | P |
| 37 | 07-65-10-10-9324 | Sheet metal flashing and counter flashing, including up to 4 bends, steel sheets, galvanized, 24 gauge <br> 24 ga galvanized coping cap | S.F. | 418.0000 | \$5.55 | $\$ 2,319.90$ | 0 RSM18eFAC M, L, O\&P | P |
| 38 | 07-71-16-20-0100 | Pitch pockets, variable sizes, adjustable, 4" to 7", welded corners, 4" deep <br> (12) $4^{\prime \prime} \times 4^{\prime \prime}$ <br> (5) $6 " \times 6 "$ <br> (1) $8 " \times 8$ " <br> (1) 12 " $\times 12$ " - Due to line item sizing counted as 2 <br> (2) $12^{\prime \prime} \times 36^{\prime \prime}-$ Due to line itme sizing counted as 5 | Ea. | 32.0000 | \$31.50 | $\$ 1,008.00$ | 0 RSM18eFAC $\mathrm{M}, \mathrm{L}, \quad \mathrm{O} \& \mathrm{P}$ | P |
| 39 | 07-71-19-10-1350 | Gravel stop, galvanized steel, plain, 24 gauge, with continuous cleat, 4" leg, 4" face height <br> 24 ga galvanized gravel guard | L.F. | 518.0000 | \$12.35 | $\$ 6,397.30$ | 0 RSM18eFAC M, L, O\&P | P |



## 22 - Plumbing

| 44 | 22-05-29-10-7424 | Hangers and supports for plumb'g/HVAC pipe/equip., roof supports, pipe, strut and channel type, up to $2-1 / 2^{\prime \prime}$ diameter pipe, $3-1 / 2^{\prime \prime}$ off roof Roof pipe support for 100 LF | Ea. | 10.0000 | \$80.00 | $\$ 800.00 \begin{gathered} \text { RSM18eFAC } \\ \mathrm{M}, \mathrm{~L}, \mathrm{O} \mathrm{\& P} \end{gathered}$ | P |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 45 | 22-14-26-13-4400 | Roof drains, roof, integral expansion joint, cast iron body, 12" cast iron dome, 8" pipe size Roof Drains | Ea. | 6.0000 | \$2,200.00 | $\$ 13,200.00 \underset{\substack{\text { RSM18eFAC } \\ \mathrm{M}, \mathrm{~L}, \mathrm{O} \\ \hline \multirow{2}{c}{}}}{ }$ | P |
| 46 | 22-14-26-16-5100 | Facility area drains, scupper floor, oblique strainer, cast iron, 8 " $\times 12$ "top, 5 " and 6 " pipe size Roof Scuppers | Ea. | 5.0000 | \$795.00 | $\$ 3,975.00 \begin{gathered}\text { RSM18eFAC } \\ \mathrm{M}, \mathrm{L}, \text { O\&P }\end{gathered}$ | P |

## Alternate

| 47 | 07-54-23-10-0200 | Thermoplastic polyolefin roofing (T.P.O.), 60 mil membrane, heat welded seams, Sq. fully adhered <br> 60 Mil TPO fully adhered - min of 3" overlap - Material Only <br> Lower Roof Area | 83.3700 | \$106.98 | $\begin{aligned} & \$ 8,918.92 \text { CUSTOM } \\ & \mathrm{M}, \mathrm{E}, \quad \mathrm{O} \& \mathrm{P} \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 48 | 07-54-23-10-0200 | Thermoplastic polyolefin roofing (T.P.O.), 60 mil membrane, heat welded seams, Sq. fully adhered <br> 60 Mil TPO - fully adhered - min 3" overlap - material only <br> Upper Roof Area | 51.4000 | \$106.98 | $\begin{gathered} \$ 5,498.77 \text { CUSTOM } \\ \text { M, E, O\&P } \end{gathered}$ |
| 49 | 07-54-23-10-0200 | Thermoplastic polyolefin roofing (T.P.O.), 60 mil membrane, heat welded seams, Sq. fully adhered | 1.7500 | \$106.98 | $\begin{aligned} & \$ 187.22 \text { CUSTOM } \\ & \mathrm{M}, \mathrm{E}, \quad \text { O\&P } \end{aligned}$ |

fully adhered
60 Mil TPO - Fully Adhered - min 3" overlap - Material Only

## Estimator: Amy Bricker

## Combined estimates..



## Estimator: Amy Bricker

## Combined estimates..

Alternate

|  | Item | Description UM | Quantity | Unit Cost | Total Book |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Labor Hours: 40 <br> Equip Hours: 8 <br> Daily Hours: 40 <br> Crew Details: <br> Code: ROFC Description: Roofers, Composition (Outside Foreman) Qty: 1 Hourly: 78.39 Daily: 627.12 <br> Code: ROFC Description: Roofers, Composition Qty: 2 Hourly: 75.05 Daily: 1200.8 <br> Code: ROHE Description: Roofers, Helpers (Composition) Qty: 2 Hourly: 56.4 Daily: 902.4 <br> Code: 015433100900 Description: Application Equipment Qty: 1 Hourly: 0 Daily: 199.27 <br> Lower Roof Area |  |  |  |  |
| 55 | Crew G-05 | G-05 Crew - 2019 - RSMeans Standard Books O\&P <br> G-05 (2019 - RSMeans Standard Books) <br> Labor Hours: 40 <br> Equip Hours: 8 <br> Daily Hours: 40 <br> Crew Details: <br> Code: ROFC Description: Roofers, Composition (Outside Foreman) Qty: 1 Hourly: 78.39 Daily: 627.12 <br> Code: ROFC Description: Roofers, Composition Qty: 2 Hourly: 75.05 Daily: 1200.8 <br> Code: ROHE Description: Roofers, Helpers (Composition) Qty: 2 Hourly: 56.4 Daily: 902.4 <br> Code: 015433100900 Description: Application Equipment Qty: 1 Hourly: 0 Daily: 199.27 <br> Upper Roof Area | 9.0000 | \$2,929.59 | $\$ 26,366.31 \underset{\text { L, E, O\&P }}{\text { CUSTOM }}$ | P |
| 56 | Crew G-05 | G-05 Crew - 2019-RSMeans Standard Books O\&P <br> Daily <br> G-05 (2019 - RSMeans Standard Books) <br> Labor Hours: 40 <br> Equip Hours: 8 <br> Daily Hours: 40 <br> Crew Details: <br> Code: ROFC Description: Roofers, Composition (Outside Foreman) Qty: 1 Hourly: 78.39 Daily: 627.12 <br> Code: ROFC Description: Roofers, Composition Qty: 2 Hourly: 75.05 Daily: 1200.8 <br> Code: ROHE Description: Roofers, Helpers (Composition) Qty: 2 Hourly: 56.4 Daily: 902.4 <br> Code: 015433100900 Description: Application Equipment Qty: 1 Hourly: 0 Daily: 199.27 <br> Canopy Roof Area | 2.0000 | \$2,929.59 | $\$ 5,859.18 \underset{\text { L, E, O\&P }}{\text { CUSTOM }}$ | P |
| 57 | Crew Q-02 | ```Q-02 Crew - 2018 - RSMeans Standard Books O&P Q-02 (2018 - RSMeans Standard Books) Labor Hours: }2 Equip Hours: 0 Daily Hours: }2``` | 5.0000 | \$2,096.64 | $\$ 10,483.20 \underset{\text { L, O\&P }}{\text { CUSTOM }}$ | P |

## Estimator: Amy Bricker

Combined estimates..
Alternate
Item Description
UM
Quantity
Unit Cost
Total
Book
Crew Details:
Code: PLUM Description: Plumbers Qty: 2 Hourly: 93.6 Daily: 1497.6
Code: PLUM Description: Plumbers (Apprentice) Qty: 1 Hourly: 74.88 Daily: 599.04
Crew to re run condensate and gas line
Alternate Total
\$85,663.79
Estimate Grand Total
155,712.11

