

**TEST REPORT FOR GRAHAM ARCHITECTURAL PRODUCTS CORP.**

Report No: Q4461.01-116-45 R0

Date: 11/14/23

**SECTION 6**
**SIMULATION RESULTS**

| TOTAL PRODUCT CALCULATIONS (GX6800 Project-Out Casement) |                                        |                  |                       |                                                                  |                       |                  |                       |                                                          |                       |                                    |        |           |
|----------------------------------------------------------|----------------------------------------|------------------|-----------------------|------------------------------------------------------------------|-----------------------|------------------|-----------------------|----------------------------------------------------------|-----------------------|------------------------------------|--------|-----------|
| Option Number                                            | Pane Thickness 1 (in)                  | Gap Width 1 (in) | Pane Thickness 2 (in) | Gap Width 2 (in)                                                 | Pane Thickness 3 (in) | Gap Width 3 (in) | Pane Thickness 4 (in) | Gap Fill                                                 | Low-e (Surface #)     | Tint                               | Spacer | Grid Type |
|                                                          | U-Factor<br>(Btu/Hr-Ft2-F)             |                  |                       | Solar Heat Gain Coefficient<br>(SHGC)<br>Grids (None / <1 / >=1) |                       |                  |                       | Visible Transmittance<br>(VT)<br>Grids (None / <1 / >=1) |                       | Condensation<br>Resistance<br>(CR) |        |           |
|                                                          |                                        |                  |                       |                                                                  |                       |                  |                       |                                                          |                       |                                    |        |           |
| 1                                                        | CLR/ARG95/E180ESC (6MM/6MM) 1" IG      |                  |                       |                                                                  |                       |                  |                       |                                                          |                       |                                    |        |           |
|                                                          | 0.224                                  | 0.500            | 0.224                 |                                                                  |                       |                  |                       | ARG95                                                    | 0.080(#3)             | CL                                 | SS-D   | N         |
|                                                          | U-Factor 0.38                          |                  |                       | SHGC(N) 0.43                                                     |                       |                  |                       | VT(N) 0.49                                               |                       | CR 54                              |        |           |
| 2                                                        | E270/ARG95/CLR (6MM/6MM) 1" IG         |                  |                       |                                                                  |                       |                  |                       |                                                          |                       |                                    |        |           |
|                                                          | 0.224                                  | 0.500            | 0.224                 |                                                                  |                       |                  |                       | ARG95                                                    | 0.035(#2)             | CL                                 | SS-D   | N         |
|                                                          | U-Factor 0.37                          |                  |                       | SHGC(N) 0.24                                                     |                       |                  |                       | VT(N) 0.43                                               |                       | CR 55                              |        |           |
| 3                                                        | E272/ARG95/CLR (6MM/6MM) 1" IG         |                  |                       |                                                                  |                       |                  |                       |                                                          |                       |                                    |        |           |
|                                                          | 0.224                                  | 0.500            | 0.224                 |                                                                  |                       |                  |                       | ARG95                                                    | 0.042(#2)             | CL                                 | SS-D   | N         |
|                                                          | U-Factor 0.37                          |                  |                       | SHGC(N) 0.27                                                     |                       |                  |                       | VT(N) 0.44                                               |                       | CR 54                              |        |           |
| 4                                                        | E366/ARG95/CLR (6MM/6MM) 1" IG         |                  |                       |                                                                  |                       |                  |                       |                                                          |                       |                                    |        |           |
|                                                          | 0.224                                  | 0.500            | 0.224                 |                                                                  |                       |                  |                       | ARG95                                                    | 0.020(#2)             | CL                                 | SS-D   | N         |
|                                                          | U-Factor 0.36                          |                  |                       | SHGC(N) 0.19                                                     |                       |                  |                       | VT(N) 0.40                                               |                       | CR 55                              |        |           |
| 5                                                        | E272/ARG95/i89 (6MM/6MM) 1" IG         |                  |                       |                                                                  |                       |                  |                       |                                                          |                       |                                    |        |           |
|                                                          | 0.224                                  | 0.500            | 0.223                 |                                                                  |                       |                  |                       | ARG95                                                    | 0.042(#2) / 0.149(#4) | CL                                 | SS-D   | N         |
|                                                          | U-Factor 0.34                          |                  |                       | SHGC(N) 0.26                                                     |                       |                  |                       | VT(N) 0.43                                               |                       | CR 44                              |        |           |
| 6                                                        | E272/ARG95/CLR (5MM/3MM 060 3MM) 1" IG |                  |                       |                                                                  |                       |                  |                       |                                                          |                       |                                    |        |           |
|                                                          | 0.187                                  | 0.500            | 0.304                 |                                                                  |                       |                  |                       | ARG95                                                    | 0.042(#2)             | CL                                 | SS-D   | N         |
|                                                          | U-Factor 0.37                          |                  |                       | SHGC(N) 0.27                                                     |                       |                  |                       | VT(N) 0.44                                               |                       | CR 56                              |        |           |
| 7                                                        | SN68/ARG90/CLR (6MM/6MM) 1" IG         |                  |                       |                                                                  |                       |                  |                       |                                                          |                       |                                    |        |           |
|                                                          | 0.221                                  | 0.500            | 0.221                 |                                                                  |                       |                  |                       | ARG90                                                    | 0.039(#2)             | CL                                 | SS-D   | N         |
|                                                          | U-Factor 0.38                          |                  |                       | SHGC(N) 0.25                                                     |                       |                  |                       | VT(N) 0.43                                               |                       | CR 51                              |        |           |
| 8                                                        | SNX6227/ARG90/CLR (6MM/6MM) 1" IG      |                  |                       |                                                                  |                       |                  |                       |                                                          |                       |                                    |        |           |
|                                                          | 0.221                                  | 0.500            | 0.221                 |                                                                  |                       |                  |                       | ARG90                                                    | 0.020(#2)             | CL                                 | SS-D   | N         |
|                                                          | U-Factor 0.38                          |                  |                       | SHGC(N) 0.18                                                     |                       |                  |                       | VT(N) 0.39                                               |                       | CR 52                              |        |           |
| 9                                                        | SB60/ARG90/CLR (6MM/6MM) 1" IG         |                  |                       |                                                                  |                       |                  |                       |                                                          |                       |                                    |        |           |
|                                                          | 0.223                                  | 0.500            | 0.223                 |                                                                  |                       |                  |                       | ARG90                                                    | 0.035(#2)             | CL                                 | SS-D   | N         |
|                                                          | U-Factor 0.38                          |                  |                       | SHGC(N) 0.26                                                     |                       |                  |                       | VT(N) 0.45                                               |                       | CR 51                              |        |           |
| 10                                                       | SB70/ARG90/CLR (6MM/6MM) 1" IG         |                  |                       |                                                                  |                       |                  |                       |                                                          |                       |                                    |        |           |
|                                                          | 0.223                                  | 0.500            | 0.223                 |                                                                  |                       |                  |                       | ARG90                                                    | 0.018(#2)             | CL                                 | SS-D   | N         |
|                                                          | U-Factor 0.38                          |                  |                       | SHGC(N) 0.18                                                     |                       |                  |                       | VT(N) 0.41                                               |                       | CR 52                              |        |           |

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**SECTION 6 (Continued)**
**SIMULATION RESULTS**

| TOTAL PRODUCT CALCULATIONS (GX6800 Project-Out Casement) |                                                     |                  |                       |                                                                  |                       |                  |                       |                                                          |                       |                                    |        |           |
|----------------------------------------------------------|-----------------------------------------------------|------------------|-----------------------|------------------------------------------------------------------|-----------------------|------------------|-----------------------|----------------------------------------------------------|-----------------------|------------------------------------|--------|-----------|
| Option Number                                            | Pane Thickness 1 (in)                               | Gap Width 1 (in) | Pane Thickness 2 (in) | Gap Width 2 (in)                                                 | Pane Thickness 3 (in) | Gap Width 3 (in) | Pane Thickness 4 (in) | Gap Fill                                                 | Low-e (Surface #)     | Tint                               | Spacer | Grid Type |
|                                                          | U-Factor<br>(Btu/Hr-Ft2-F)                          |                  |                       | Solar Heat Gain Coefficient<br>(SHGC)<br>Grids (None / <1 / >=1) |                       |                  |                       | Visible Transmittance<br>(VT)<br>Grids (None / <1 / >=1) |                       | Condensation<br>Resistance<br>(CR) |        |           |
|                                                          |                                                     |                  |                       |                                                                  |                       |                  |                       |                                                          |                       |                                    |        |           |
| 11                                                       | SNX6227/ARG90/CLR (6MM/6MM) 1" IG                   |                  |                       |                                                                  |                       |                  |                       |                                                          |                       |                                    |        |           |
|                                                          | 0.221                                               | 0.500            | 0.221                 |                                                                  |                       |                  |                       | ARG90                                                    | 0.020(#2)             | CL                                 | TS-D   | N         |
|                                                          | U-Factor 0.36                                       |                  |                       | SHGC(N) 0.18                                                     |                       |                  |                       | VT(N) 0.39                                               |                       | CR 55                              |        |           |
| 12                                                       | SNX5123/ARG90/CLR (6MM/6MM) 1" IG                   |                  |                       |                                                                  |                       |                  |                       |                                                          |                       |                                    |        |           |
|                                                          | 0.221                                               | 0.500            | 0.221                 |                                                                  |                       |                  |                       | ARG90                                                    | 0.021(#2)             | CL                                 | TS-D   | N         |
|                                                          | U-Factor 0.36                                       |                  |                       | SHGC(N) 0.16                                                     |                       |                  |                       | VT(N) 0.32                                               |                       | CR 55                              |        |           |
| 13                                                       | SNX6227/ARG90/IS20 (6MM/6MM) 1" IG                  |                  |                       |                                                                  |                       |                  |                       |                                                          |                       |                                    |        |           |
|                                                          | 0.221                                               | 0.500            | 0.221                 |                                                                  |                       |                  |                       | ARG90                                                    | 0.020(#2) / 0.198(#4) | CL                                 | TS-D   | N         |
|                                                          | U-Factor 0.34                                       |                  |                       | SHGC(N) 0.17                                                     |                       |                  |                       | VT(N) 0.38                                               |                       | CR 45                              |        |           |
| 14                                                       | SB70/ARG90/CLR (6MM/6MM) 1" IG                      |                  |                       |                                                                  |                       |                  |                       |                                                          |                       |                                    |        |           |
|                                                          | 0.223                                               | 0.500            | 0.223                 |                                                                  |                       |                  |                       | ARG90                                                    | 0.018(#2)             | CL                                 | TP-S   | N         |
|                                                          | U-Factor 0.36                                       |                  |                       | SHGC(N) 0.18                                                     |                       |                  |                       | VT(N) 0.41                                               |                       | CR 57                              |        |           |
| 15                                                       | CLR/ARG95/E180/ARG95/E180 (5MM/5MM/5MM) 1-1/2" IG   |                  |                       |                                                                  |                       |                  |                       |                                                          |                       |                                    |        |           |
|                                                          | 0.185                                               | 0.469            | 0.187                 | 0.469                                                            | 0.187                 |                  |                       | ARG95                                                    | 0.068(#3) / 0.068(#5) | CL                                 | SS-D   | N         |
|                                                          | U-Factor 0.28                                       |                  |                       | SHGC(N) 0.37                                                     |                       |                  |                       | VT(N) 0.43                                               |                       | CR 65                              |        |           |
| 16                                                       | E272/ARG95/CLR/ARG95/CLR (5MM/5MM/5MM) 1-1/2" IG    |                  |                       |                                                                  |                       |                  |                       |                                                          |                       |                                    |        |           |
|                                                          | 0.187                                               | 0.469            | 0.185                 | 0.469                                                            | 0.185                 |                  |                       | ARG95                                                    | 0.042(#2)             | CL                                 | SS-D   | N         |
|                                                          | U-Factor 0.31                                       |                  |                       | SHGC(N) 0.25                                                     |                       |                  |                       | VT(N) 0.41                                               |                       | CR 63                              |        |           |
| 17                                                       | SNX6227/ARG90/CLR/ARG90/CLR (5MM/5MM/5MM) 1-1/2" IG |                  |                       |                                                                  |                       |                  |                       |                                                          |                       |                                    |        |           |
|                                                          | 0.182                                               | 0.469            | 0.182                 | 0.469                                                            | 0.182                 |                  |                       | ARG90                                                    | 0.020(#2)             | CL                                 | TS-D   | N         |
|                                                          | U-Factor 0.31                                       |                  |                       | SHGC(N) 0.17                                                     |                       |                  |                       | VT(N) 0.36                                               |                       | CR 63                              |        |           |
| 18                                                       | CLR/ARG90/E270VIG (6MM/4MM/4MM) 1" IG               |                  |                       |                                                                  |                       |                  |                       |                                                          |                       |                                    |        |           |
|                                                          | 0.224                                               | 0.438            | 0.154                 | 0.008                                                            | 0.154                 |                  |                       | ARG90/VIG                                                | 0.035(#4)             | CL                                 | SS-D   | N         |
|                                                          | U-Factor 0.28                                       |                  |                       | SHGC(N) 0.22                                                     |                       |                  |                       | VT(N) 0.39                                               |                       | CR 41                              |        |           |