

CURTAIN WALL DESIGN ASSIST BENEFITS:

- **QUALITY:**
Specialists on board early (architects / engineers / subcontractor / manufacturer)
Collaborative approach
- **SCHEDULE :**
Early release of materials
- **COST :**
Limited RFIs / field questions

07/17/2019



HIGH SCHOOL / POND VIEW



HIGH SCHOOL - BACK VIEW

■ Curtain Wall & Windows

07/17/2019



HIGH SCHOOL / POND VIEW



SOLAR SHADE DETAILED VIEW



HIGH SCHOOL - BACK VIEW

■ Horizontal Aluminum Sun Shades

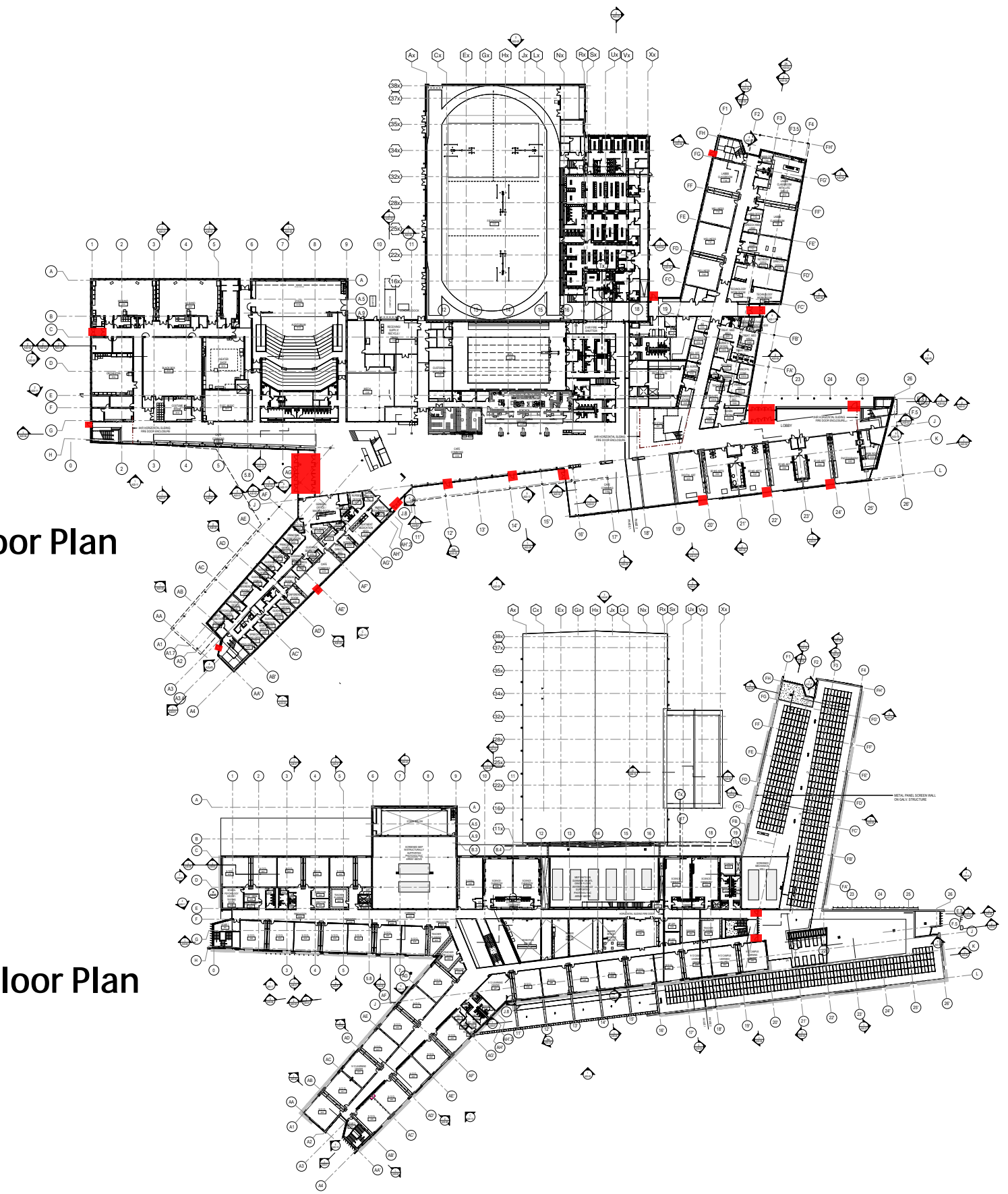
07/17/2019



TERRACE / POND VIEW



HIGH SCHOOL ENTRANCE



■ Glass Entrances and associated Hardware

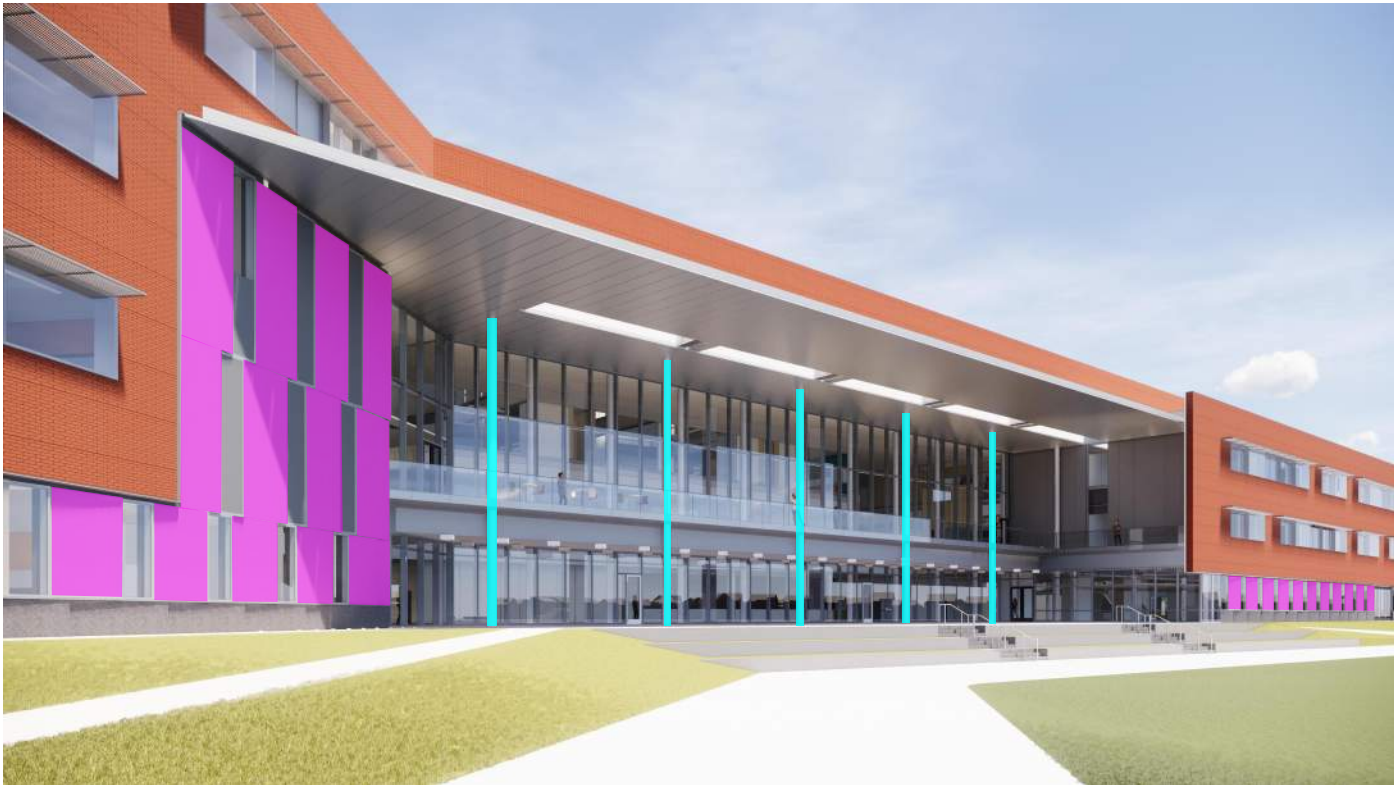
07/12/2019



HIGH SCHOOL - BACK VIEW



MIDDLE SCHOOL ENTRANCE



TERRACE / POND VIEW

■ GFRP Panels (Glass Fiber Reinforced Concrete) & ■ GFRP Column Enclosures 07/17/2019



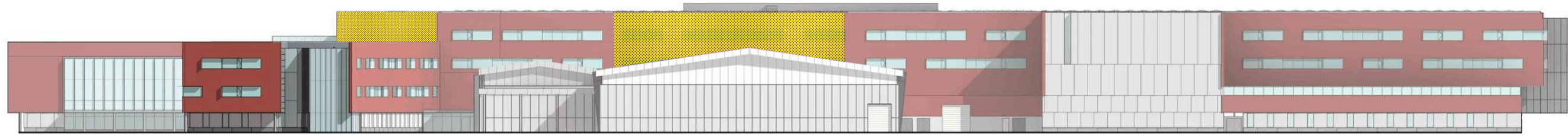
HIGH SCHOOL / POND VIEW



HIGH SCHOOL ENTRANCE

■ Metal Panels

07/17/2019



NORTH ELEVATION



MIDDLE SCHOOL ENTRANCE



HIGH SCHOOL - BACK VIEW

 **Mechanical Screen Walls**

07/17/2019



HIGH SCHOOL ENTRANCE

■ Vertical Fins (Perforated Metal Panels)

07/17/2019



POND SIDE VIEW - MIDDLE SCHOOL

■ (SS) Stainless Steel Trim & ■ (MCM) Metal Composite Material Trim

07/17/2019



Town of Belmont
 Belmont High School
 Belmont, MA
 BP-01 Curtain Wall Cost Comparison

BP-01 Curtain Wall Cost Comparison (Skanska Vs Levelled Subs)

| | Curtain Wall Design Assist Scope Breakdown | B&F Budget | B&F Budget | B&F Budget | Grand Total w/ VM |
|--------------------------------------|--|---------------------|---------------------|--------------------------|---------------------|
| | | <u>JKGlass</u> | <u>Sunrise</u> | <u>Ipswich Bay Glass</u> | <u>Skanska</u> |
| 1.) | Curtain wall Design/Assist | \$160,260 | \$500,000 | \$225,000 | \$0 |
| 2.) | Curtain wall | \$5,909,424 | \$4,769,365 | \$7,454,000 | \$6,339,727 |
| 3.) | Curtain wall Windows | See Item 2 | \$3,811,635 | See Item 2 | See Item 2 |
| 4.) | Curtain wall Metal Panels | \$3,491,874 | \$3,480,000 | \$4,537,425 | \$2,876,623 |
| 5.) | Glass Entrances | \$679,715 | \$533,000 | \$519,000 | \$356,561 |
| 6.) | Alum Sunshades | \$1,294,720 | \$600,000 | \$1,111,250 | \$685,363 |
| 7.) | Vert Fins (perf metal panels) | \$517,294 | \$760,000 | \$1,100,000 | \$358,330 |
| 8.) | Skylights | \$190,829 | \$166,000 | \$297,800 | \$175,224 |
| 9.) | Louvered Screen Wall | \$656,951 | \$830,000 | \$604,125 | \$401,195 |
| 10.) | Fiber Cement Panels | \$2,004,419 | \$2,375,000 | \$2,375,000 | \$1,767,491 |
| 11.) | Construction Waste Management & Clean Up | \$307,057 | \$307,057 | \$307,057 | \$280,505 |
| 12.) | Mock-ups | \$154,000 | \$160,000 | \$58,000 | \$127,017 |
| 13.) | General Requirements | \$483,457 | Incl'd Above | Incl'd Above | Incl'd Above |
| Total | | \$15,850,000 | \$17,985,000 | \$17,126,982 | \$13,368,035 |
| Indirect Cost | | | | | |
| | Design/Estimating Contingency (5%) | | | | \$668,402 |
| | Escalation Contingency (6%) | | | | \$802,082 |
| | Subcontractor Insurance Deduct (3%) | | | | Incl'd Above |
| Grand Total | | \$15,850,000 | \$17,985,000 | \$17,126,982 | \$14,838,519 |
| Variance Cost Skanska Vs. Sub | | \$1,011,481 | \$3,146,481 | \$2,288,463 | |

Note: Please note that all green highlighted cells are cost that have been adjusted by Skanska to project subcontractor savings.

**Skanska USA Building**

101 Seaport Boulevard, Suite 200
 Boston, MA 02210
 Phone: 617-574-1400
 Fax: 617-574-1399
 Web: www.usa.skanska.com

Project Name: Belmont Middle and High School Bid Package 001 - Curtain Wall Design Assist
 Project Number: 1318017
 Date: 7/18/2019

Recommendation to Award No. 010 Bid Package No. 001 Curtain Wall Design Assist

| Responsive Bidders: | Design Assist Subcontract Amount: | Budget/Design to Subcontract Amount: | Total (w/o alternates) | Notes |
|------------------------|-----------------------------------|--------------------------------------|------------------------|------------------------------|
| JK Glass Company, Inc. | \$ 160,260 | \$ 15,689,740 | \$ 15,850,000 | |
| Ipswich Bay Glass | \$ 225,000 | \$ 16,594,925 | \$ 16,594,925 | GFRC plugged in from Sunrise |
| Sunrise Erectors, Inc. | \$ 500,000 | \$ 17,485,000 | \$ 17,985,000 | |

Non-Responsive Bidder(s)

Karas & Karas Glass Company Inc.
 Cheviot Corp.
 Chandler Architectural Products
 Island Exterior Fabricators

As a result of the bid submission analysis, interviews and negotiations with the responsive bidders, we are pleased to submit this Request and Recommendation to Award (RTA) to JK Glass Company, Inc./Lymo Construction Co. Inc. for a Subcontract Amount of **\$160,260** for the Design Assist portion of this scope ONLY.

Please refer to the budget summary below for additional breakdown of the total budget for this trade, inclusive of the requested Subcontract Amount. This RTA reflects the following qualifications and assumptions:

- Notes:**
- This RTA includes costs associated with the Design Assist portions of the curtainwall, metal panel, GFRC, and mechanical screen wall work. Shop drawings, fabrication and installation are included as allowances. Bidder's total includes all labor, material, equipment supervision, scaffolding, transportation, tools & services required to complete the installation of the above referenced work.
 - Bid Package documents includes the scope of work in Exhibit A-D and the 100% Design Development Contract Documents dated 4/8/15.
 - Interface drawings dated 7/12/19: Exhibit "B1" - Details; Exhibit "B2" - Glazing Type Take-offs; Exhibit "B3" - Exterior Cladding Take-offs.
 - Bidder's total does **not** included CM fees and CM General Conditions.
 - Bidder's total does **not** included Performance & Payment Bonds. Pricing is based upon Subguard Program.
 - Bidder's total does **not** include Massachusetts State Sales & Use Tax.
 - Bidder's total is based upon Contractor's Controlled Insurance Program (CCIP).
 - Attached for your review and to be made part hereof is a copy of the Bid Analysis Sheet for the above referenced Scope of Work.
 - Bidder includes the Scope of Work as detailed in the Exhibit A Scope of Work.
 - Pricing Adjustments to the base bid are identified below:

| Scope Information | Cost |
|-------------------|--------|
| | \$0.00 |
| | \$0.00 |

Skanska USA Building's Recommendation to Award for the Subcontract Agreement associated with the above referenced Scope of Work for Belmont Middle and High School Design Assist Bid Package 001.

JK Glass Company Inc. in the amount of: **\$ 160,260.00**

In the event that the design-assist services have been performed by CWC to the satisfaction of the Town, the Perkins and Will Design Team and Skanska, and in the event that the CWC Lump Sum Proposal does not exceed the Total Cost Budget, and such conditions met by September 10th, 2019, then the Town shall authorize Skanska to enter into a subcontract agreement with CWC for the proposed allowances associated with furnishing and installing the curtain wall scope.

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 Project Number: 1318017
 Date: 7/18/2019

Recommendation to Award No. 010 Bid Package No. 001 Curtain Wall Design Assist

| Owner Allowances | Description | Included in Subcontract Value | Not included in Subcontract Value |
|------------------|---|-------------------------------|-----------------------------------|
| 1 | Shop drawings, fabrication and installation of curtain wall & windows | | \$ 5,909,424 |
| 2 | Shop drawings, fabrication and installation of metal panels & GFRC Columns | | \$ 3,491,874 |
| 3 | Shop drawings, fabrication and installation of Glass Entrances and hardware | | \$ 679,715 |
| 4 | Shop drawings, fabrication and installation of Sloped curtain wall (Skylights) | | \$ 190,829 |
| 5 | Shop drawings, fabrication and installation of Aluminum Sun Shades | | \$ 1,294,720 |
| 6 | Shop drawings, fabrication and installation of GFRC | | \$ 2,004,419 |
| 7 | Shop drawings, fabrication and installation of Vertical Fins (perforated metal) | | \$ 517,294 |
| 8 | Subcontractor's general conditions | | \$ 483,457 |
| 9 | Shop drawings, fabrication and installation of mechanical screen wall | | \$ 656,951 |
| 10 | Shop drawings, fabrication and installation of mockup | | \$ 154,000 |
| 11 | Construction Waste management | | \$ 307,057 |
| 12 | Extended Glass Warranty | | Not included in RTA |
| 13 | Winter conditions/Snow Removal | | Not included in RTA |
| 14 | VE Summary: Potential VE-value target | | \$ (1,250,000) |
| Total | | \$ - | \$ 14,439,740 |

| Hold Items | Description | | |
|-------------------------|--|-------------|---------------------|
| 1 | Glass breakage - Phase 1 & 2 (1% of Curtain Wall & windows allowance) | \$ | 50,000 |
| 2 | Temp Protection of CW mullions/sunshades/vertical fins beyond film | \$ | 25,000 |
| 3 | Replacement panels (metal and/or GFRC) due to trade damages (1% of Metal & GFRC allowance) | \$ | 25,000 |
| 4 | CW Material expediting | \$ | 25,000 |
| 5 | Mockup structural support | \$ | 50,000 |
| 6 | Fireproofing patching | \$ | 40,000 |
| 7 | Touch up paint of mullions/frames | \$ | 10,000 |
| 8 | Rework of openings | \$ | 10,000 |
| Total Hold Items | Total | \$ - | \$ 235,000 * |

*Please note that the hold items referenced above have not been purchased

Total Direct Cost **\$ 14,835,000**

| | | |
|--------------------------------|--|----------------------|
| Available/Target Budget | Curtain Wall/Windows/Skylights/Metal panels/GFRC/Shades/Mechanical Screens/Design + Escalation contingencies (from DD estimates with VE dated 5/17/19) | \$ 14,838,519 |
| | Total Available Budget | \$ 14,838,519 |

Amount Under / Over **\$ (3,519)**

SIGNATURE SECTION

Acknowledged and Agreed

Belmont High School Building Committee

By: _____
 William D. Lovallo
 Its Authorized Representative
 Date Printed: _____

SKANSKA USA BUILDING INC.

By: _____
 James K. Craft
 Hereunto Duly Authorized
 Date Printed: _____



Town of Belmont
Belmont Middle & High School Project
Belmont, MA
Design Assist Bid Package 001 - Curtain Wall
7/17/2019

| Pre-GMP Amendment 08 Summary | |
|---|----------------------|
| Description | TOTAL |
| Trade Cost | \$ 14,860,000 |
| 1.35% Subguard (only on Subcontractors, not on FSB) | \$204,622 |
| Total Direct Cost | \$ 15,064,622 |
| <u>Contingencies</u> | |
| 0.00% Design Contingency | \$ - |
| 2.00% Construction Contingency | \$ 297,200 |
| 0.00% Escalation Contingency | \$ - |
| Total Contingencies: | \$ 297,200 |
| <u>Insurance & Bonds</u> | |
| Builders Risk Insurance | By Owner |
| 2.70% C.C.I.P. | \$ 409,244 |
| 0.73% Skanska Bonding | \$ 117,374 |
| Total Insurance & Bonds: | \$ 526,618 |
| <u>Construction Management Services</u> | |
| General Conditions | \$ - |
| General Requirements | \$ - |
| 1.95% Construction Management Fee | \$ 307,536 |
| Total Construction Management Services: | \$ 307,536 |
| <u>Building Permit - By Owner</u> | \$ - |
| Total Project Cost: | \$ 16,195,977 |