

**STAFF REPORT FOR CALENDAR ITEM NO.: 14
FOR THE MEETING OF: July 9, 2015**

TRANSBAY JOINT POWERS AUTHORITY

BRIEF DESCRIPTION:

Amending Contract No. 08-04-CMGC-000, authorizing Webcor/Obayashi Joint Venture (the CM/GC) to modify the Trade Work Subcontract with Crown Corr, Inc. (CCI) for TG08.11R: Glass Curtain Walls and Skylights Design-Build Services (TG08.11R) in an amount of \$59,710,396, thereby increasing authorized Direct Costs by \$59,710,396 and increasing the authorized Construction Services Fixed Fee by \$2,089,864, under and in accordance with Contract No. 08-04-CMGC-000, Section 00 05 20, ¶5.01B. The award amount is for the construction services portion of a design-build contract for the Glass Curtain Walls and Skylights for the Transbay Transit Center. The design has been completed, and a fair and reasonable total cost for construction services has been developed, negotiated and agreed upon.

EXPLANATION:

The scope of TG08.11R includes six (6) different glazing systems in various locations throughout the Transit Center:

- W-2: Aluminum-framed insulated glass curtain wall system enclosing the majority of the Transit Center building including retail and office spaces on the first and second floors
- W-3: Glazed curtain wall system enclosing the Grand Hall and Beale Street Lobby
- W-4: Aluminum-framed curtain wall system at the light column from the Rooftop Park extending down through the Bus Deck above the Grand Hall
- W-6: Security ballistic resistant glazing at various sensitive security areas
- W-8: Glazed curtain wall system enclosing the escalators that access the Rooftop Park from the Bus Deck
- W-10: Skylights systems on the Rooftop Park (total of 3) including two elliptical grade-level skylights and one skylight at the top of the light column

Systems W-3, W-4, W-8, and W-10 were originally issued for bid under TG08.1R Glazing Design-Build Construction Services on November 7, 2013. On January 30, 2014, two bids for TG08.1R were received; both bids were substantially over the TJPA's budget, and thus were rejected. To mitigate cost increases and maintain the Transit Center schedule, the CM/GC determined, in conjunction with the TJPA, Construction Management Oversight consultant (CMO) and counsel, that a collaborative design-build procurement methodology would provide the best opportunity to procure the Glass Curtain Walls and Skylights with the greatest competition and at the best price.

Under the collaborative design-build procurement methodology (sometimes referred to in the construction industry as a design-assist procurement), bidders are required to submit a technical qualifications proposal and a price proposal for evaluation by the TJPA's selection committee

(consisting of representatives from the TJPA, CM/GC, design team, CMO, and Program Management/Program Controls (PMPC) consultant). The price proposal consists of the sum of (1) a fixed lump sum amount for design services; (2) a Construction Fee percentage multiplied by estimated construction costs (provided by TJPA); and (3) a Construction Overhead percentage multiplied by estimated construction costs. The solicitation identified those costs that should be included in the Construction Fee percentage and in the Construction Overhead percentage. The TJPA received concurrence from the FTA that this collaborative design-build approach was an acceptable procurement methodology under applicable FTA procurement principles.

Consistent with the above methodology, on November 10, 2014, the CM/GC added systems W-2 and W-6 to the scope and reissued the package as TG08.11R Glass Curtain Walls and Skylights Design-Build Services as a Request for Proposals (RFP), seeking proposals from qualified firms to provide design services as the design-builder of the Glass Curtain Walls and Skylights systems.

On February 12, 2015, the TJPA Board awarded the design services portion of the design-build contract for the Glass Curtain Walls and Skylights to CCI, the bidder offering the best value to the TJPA, in the amount of \$2,950,000. Along with the \$2,950,000 lump sum design services amount, CCI's price proposal included a Construction Fee of 18% and a Construction Overhead percentage of 12%. At the time of the award, the estimated construction cost as set forth in the solicitation for TG08.11R (exclusive of the Construction Fee and Construction Overhead) was \$23.5 million.

Upon award, CCI worked collaboratively with the entire TJPA team, including the TJPA's design professionals, the CM/GC, and other Trade Subcontractors, to provide approaches and alternatives for the design of the Glass Curtain Walls and Skylights systems consistent with the original design intent, certain performance specifications, and the TJPA's budget. Anticipated construction costs were reviewed and evaluated by the TJPA team on an "open book" basis, requiring CCI to submit cost estimates and proposals from its vendors and material suppliers to the TJPA for review. Working collaboratively, the TJPA team negotiated a Total Construction Cost with CCI in conformance with the detailed design schedule set forth in the solicitation. The Total Construction Cost includes all direct construction costs for the fabrication and installation of the Glass Curtain Walls and Skylights plus the Construction Fee (reduced by CCI from 18% per awarded design service contract to 13% as part of the negotiations) and Construction Overhead costs based on the percentages submitted in CCI's proposal.

The total cost of the construction phase services consist of the following items:

Glass Curtain Walls and Skylight Systems:

	Cost
Direct Construction Cost Total	\$48,368,318
Construction Overhead (12% x Direct Construction Costs)	\$5,804,197
Construction Fee (13%* x Direct Construction Costs)	\$6,287,881
Retention Reduction Savings (retention reduced to 2.5% and released at 50% completion)	(\$750,000)
Total Construction Cost	\$59,710,396

* Reduced from 18% submitted with CCI's proposal.

The scope of work under this package includes designing and constructing the Glass Curtain Walls and Skylights to meet the specified performance requirements and design criteria and intent for the negotiated Total Construction Cost of \$59,710,396.

The scope of work recommended for award today is for all construction services related to the Glass Curtain Walls and Skylights, including all labor, materials, equipment, tools, transportation, disposal fees, incidentals and any other costs/fees necessary to complete the fabrication and installation of the Glass Curtain Walls and Skylights in accordance with the Contract Documents. All necessary work from mobilization to handover to the next Trade Subcontractor will be included in this scope of work.

The TG08.11R trade package has a Small Business Enterprise (SBE) utilization goal of 5 percent, which applies to the construction services portion of the package. CCI currently has a commitment of 4% SBE participation utilizing 2 SBE firms but will continue to look for other opportunities during the construction phase.

TJPA's current budget for the construction phase services of TG08.11R is \$26,810,288, and the CM/GC's estimate is \$40,466,000. The Total Construction Cost for TG08.11R is \$32,900,108 above the TJPA's budget and \$19,244,396 above the CM/GC's estimate.

In light of the significant cost differential between the Total Construction Cost and the CM/GC's estimate, the TJPA instructed the CM/GC to provide an analysis and explanation of the cost differential. The CM/GC's written analysis and explanation, attached hereto as Exhibit A, identified the following key factors causing the increase in cost:

1. Incorporating permanent glazing systems in lieu of the temporary partitions for retail store fronts assumed at the time of the estimate. (\$2.7 million)
2. Additional cost to comply with Design Guidance Criteria loads over and above a more typical blast design system. (\$3.8 million)
3. Additional cost for glazing systems to satisfy the structural requirements of the building resulting from the transfer of DGC blast loads. (\$2.5 million)
4. Limited availability of suppliers able to meet the compressed schedule. (\$1.5 million)
5. Other factors. (\$8.7 million)
 - Projected overall demand on workforce
 - Inefficiencies resulting from time compression
 - A greater than 20% increase in cost of glass

W/O's analysis concludes that the negotiated Total Construction Cost is fair and reasonable. W/O also concludes that terminating the Trade Work Subcontract and competitively bidding the fabrication and installation of the Glass Curtain Walls and Skylights systems based on the final design prepared by CCI as allowed under the design services contract, will not result in a better price and that any delays associated with competitively bidding the fabrication and installation will result in schedule impacts and additional costs to the project.

Based on the CM/GC's analysis and determination that the negotiated Total Construction Cost is fair and reasonable and that TG0.811R is a schedule-critical trade package, it is recommended to

fund the \$32,900,108 balance between the award amount and the current TG0.811R budget with funding previously reserved for remaining trade packages. The funding for the remaining trade packages shall then be replenished when the Phase 1 Program budget is revised in September 2015.

The initial work under this Trade Work Subcontract is anticipated to be funded by bridge loan and land sales proceeds.

RECOMMENDATION:

TJPA staff recommends that the TJPA Board authorize amending Contract No. 08-04-CMGC-000, authorizing the CM/GC to modify the Trade Work Subcontract with Crown Corr, Inc., in the amount of \$59,710,396 for the construction services for TG08.11R: Glass Curtain Walls and Skylights, thereby increasing the authorized Direct Costs by \$59,710,396 and increasing the authorized Construction Services Fixed Fee by \$2,089,864, under and in accordance with Contract No. 08-04-CMGC-000, Section 00 05 20, ¶5.01B.

ENCLOSURES:

1. Resolution
2. Exhibit A, Analysis and Explanation of Cost Differential between CM/GC Estimate and Negotiated Construction Cost for TG08.11R
3. Contract Modification

**TRANSBAY JOINT POWERS AUTHORITY
BOARD OF DIRECTORS**

Resolution No. _____

WHEREAS, On March 12, 2009, the Transbay Joint Powers Authority (TJPA) awarded a contract to Webcor/Obayashi Joint Venture as Construction Manager/General Contractor (the CM/GC) for the Transbay Transit Center Building and Related Structures (Contract No. 08-04-CMGC-000 or the Contract). Under the Contract, the CM/GC must competitively procure Trade Subcontractors. The Contract provides for the incorporation of Trade Packages by amendment to (a) authorize award of a Trade Work Subcontract; (b) authorize the associated increase in allowable Direct Costs under the Contract; and (c) authorize the CM/GC to charge a Construction Services Fixed Fee invoiced at a rate of 3.5% of Direct Costs (Contract, Section 00 05 20, ¶5.01); and

WHEREAS, On November 10, 2014, the CM/GC issued a Request for Proposals (RFP) for TG08.11R: Glass Curtain Walls and Skylights (TG08.11R) for the Transbay Transit Center Program to design and potentially construct the complete Glass Curtain Walls and Skylights systems (W-2, W-3, W-4, W-6, W-8, and W-10) in accordance with the Contract Documents; and

WHEREAS, Under TG08.11R, the Trade Subcontractor will perform all Glass Curtain Walls and Skylights design and potentially construction-related activities for the Transbay Transit Center Program; and

WHEREAS, On June 30, 2105, negotiations for the construction services under TG08.11R were successfully completed with Crown Corr, Inc.; and

WHEREAS, Funds for the initial work under this Trade Work Subcontract are available from bridge loan and land sales proceeds; now, therefore, be it

RESOLVED, That the TJPA Board of Directors authorizes the CM/GC to modify the Trade Work Subcontract with Crown Corr, Inc., for construction services for the Glass Curtain Walls and Skylights systems (W-2, W-3, W-4, W-6, W-8, and W-10) as set forth in TG08.11R in an amount of \$59,710,396; and be it

FURTHER RESOLVED, That upon modification of the Trade Work Subcontract with Crown Corr, Inc., the Trade Work Subcontract shall be deemed part of the Contract Documents under Contract No. 08-04-CMGC-000; and be it

FURTHER RESOLVED, That Contract No. 08-04-CMGC-000 is hereby modified to incorporate the authorized amount of the Trade Work Subcontract to Crown Corr, Inc., for TG08.11R by increasing the authorized Direct Costs by \$59,710,396, and increasing the authorized Construction Services Fixed Fee by \$2,089,864 (Direct Costs of \$59,710,396 multiplied by the Construction Services Fee of 3.5%) under and in accordance with Contract No. 08-04-CMGC-000, Section 00 05 20, ¶5.01B.

I hereby certify that the foregoing resolution was adopted by the Transbay Joint Powers Authority Board of Directors at its meeting of July 9, 2015.

Secretary, Transbay Joint Powers Authority

EXHIBIT A



July 6, 2015

Mark Zabaneh
Transbay Joint Powers Authority
201 Mission Street, Suite 2100
San Francisco, CA 94105

RE: Transbay Transit Center – 30100.01
SUBJ: TG08.11R – Glass Curtain Walls and Skylights - Construction Change Order Recommendation – July 2015 Board Meeting

Dear Mark,

On February 12, 2015, Crown Corr Inc. was awarded a contract for design of the W-2, W-3, W-4, W-6, W-8, and W-10 glazing systems. Since award of the design there have been numerous design coordination meetings where the glazing system design details were refined in collaboration with TJPA, PCPA, PMPC, Turner and the RVA consultants. The glazing systems have now been fully designed, engineered and priced and they are ready to proceed with construction.

Crown Corr's proposed cost for the glazing systems is \$59.71 Million. WOJV's 100% CD estimate in February, 2014 for the glazing systems is \$40.5 Million. The costs submitted by Crown Corr have been reviewed and compared, on a system by system basis, to the CM/GC 100% CD Estimate. Crown Corr has submitted detailed back-up documentation to support their pricing. WOJV and the project team have reviewed the pricing and determined that is appropriate for the scope of work.

The key factors causing the increase in cost are:

- Addition of permanent glazed "pop-outs" at retail entrances instead of temporary partitions
- RVA loading criteria
- Design coordination of the glazing systems with the already designed structure
- Compressed schedule requires work simultaneously in multiple areas
- Limited availability of manpower
- Limited availability of suppliers due to market conditions and the short procurement times necessary to meet the schedule

These items are further discussed below.

The project design incorporates temporary pop-outs at the retail entrances, consisting of light metal framing and gypsum board. It was planned that the retail tenants would remove the temporary walls and install permanent glazed partitions when the retail spaces are built out. During the design of the glazing system, it was recognized that the RVA loading criteria at these areas results in a specialized curtain wall design that would be very difficult to install later. It is far more efficient to eliminate the

temporary partitions and install the permanent glazing now. This results in an added initial cost of \$2.7 Million for the glazing systems that will be offset by lower costs later to develop the retail spaces.

In the development of the glazing system design, there were numerous meetings with the design team and RVA consultants to develop the loading criteria for the glazing systems. The blast criteria calls for pressure and impulse requirements in both directions on the system with a balanced design. It was several weeks into the design process before the cumulative effects of the RVA requirements were fully understood and engineered into the glazing system. The additional cost to comply with the RVA loading criteria over and above a more typical blast design is \$3.8 Million.

The building structure has been fully designed and is under construction. As the curtain wall system design was developed, it became clear that there were limitations on how the loads from the glazing system could be transferred to the structure. This has resulted in much larger embeds and internal support members than is typical for a curtain wall system. The additional cost for the glazing systems to satisfy the structural requirements of the building are \$2.5 Million.

The schedule for completion of the project has been significantly compressed due to many factors. This will require Crown Corr to mobilize large crews and work in multiple areas simultaneously. There is limited availability of labor in the current market and it will be difficult to staff the project with a qualified workforce. This has been factored into the labor productivity costs and results in an increase cost of \$3.6 Million.

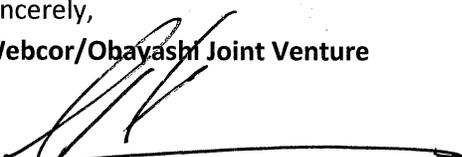
Due to current demands in the marketplace, the major curtain wall manufacturers are booked out an average of 14 to 16 months to fabricate and deliver curtain wall and skylight system components. As a result of the shortened procurement time necessary to meet the schedule, we are limited to only a few suppliers for the major components. This reduced competition is increasing the material costs by an estimated \$1.5 Million. The alternative is to delay completion of the project by as much as 6-9 months, further increasing the costs.

Furthermore, WOJV has seen cost escalation for glass greater than 20% since early 2014 on other projects.

The above factors account for most of the \$19.2 million difference between the 100% CD Estimate in February, 2014 and the proposed cost from Crown Corr. WOJV recommends that Crown Corr be awarded the contract for construction of the TG08.11R Glass Curtain Walls and Skylights. Failure to award the Glass Curtain Walls and Skylights at the July Board Meeting will result in significant delays to the project and increased costs.

Sincerely,

Webcor/Obayashi Joint Venture



Steve Humphreys

Vice President

Cc: Mark O'Dell, Ray Quesada - PMPC
Dennis Turchon, Eddie Phillips – TJPA
Jes Pedersen, Jeff Heath, Scott Onick – Webcor/Obayashi

COM3347

AGREEMENT
AMENDMENT NO. 58
BETWEEN
TRANSBAY JOINT POWERS AUTHORITY
AND
WEBCOR/OBAYASHI JOINT VENTURE

THIS AMENDMENT for AGREEMENT is entered into as of the 9th day of July, 2015, by and between the TRANSBAY JOINT POWERS AUTHORITY (TJPA) and Webcor/Obayashi Joint Venture (the CM/GC). By this Amendment No. 58 the TJPA and the CM/GC hereby modify the Agreement dated March 17, 2009 (the Agreement), only to the extent expressly provided in this Amendment No. 58. All other terms and conditions of the Agreement shall remain in full force and effect.

Recitals

A. On March 12, 2009, the TJPA Board awarded the Agreement to the CM/GC to perform pre-construction and construction services for the Transbay Transit Center Building and Related Structures Project (the Project).

B. As detailed in the Agreement, the CM/GC is required to procure construction services through the award of Trade Packages, at which time TJPA shall adjust the value of the Contract Sum to reflect the amount of the awarded Trade Work Subcontract plus the proportionate CM/GC's Construction Services Fixed Fee in accordance with Article 5.01 of the Agreement.

C. On February 12, 2015, the TJPA Board approved the award of Trade Work Subcontract TG08.11R to Crown Corr, Inc. for performance of Glass Curtain Walls and Skylights design services.

D. On June 30, 2015, successful negotiations were completed with Crown Corr, Inc. for the construction services portion of Trade Work Subcontract TG08.11R.

E. Based on the TJPA's staff recommendation, the CM/GC shall modify the Trade Work subcontract with Crown Corr, Inc. for glass curtain walls and skylights construction services, as set forth under TG08.11R, for an amount of \$59,710,396.

Terms and Conditions

1. By this Amendment, the TJPA authorizes an increase in the CM/GC's scope of work and the value of the Contract Sum by \$61,800,260 (Trade Package Direct Costs of \$59,710,396 and CM/GC Fixed Fee, calculated at 3.5 percent of Direct Costs, of \$2,089,864), and the modification of Trade Work subcontract No. TG08.11R with Crown Corr, Inc. for performance of Glass Curtain Walls and Skylights construction services.

2. The detailed scope of work and schedule incorporated by this Amendment is provided in the Contract Bid Documents dated June 16, 2014, and all associated Addenda.

IN WITNESS WHEREOF, the parties hereto have executed this contract Amendment No. 58 on the day first mentioned above.

TRANSBAY JOINT POWERS AUTHORITY

Maria Ayerdi-Kaplan
Executive Director

Transbay Joint Powers Authority
Board of Directors
Resolution No. _____
Adopted: _____
Attest:

Secretary, TJPA Board

Approved as to Form:

By: _____
TJPA Legal Counsel

WEBCOR/OBAYASHI, JOINT VENTURE

Authorized Signature

Printed Name

Title