

File No. 100067

Committee Item No. 4

Board Item No. \_\_\_\_\_

### COMMITTEE/BOARD OF SUPERVISORS

#### AGENDA PACKET CONTENTS LIST

Committee BUDGET AND FINANCE

Date 2/24/10

Board of Supervisors Meeting

Date \_\_\_\_\_

#### Cmte Board

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| <input type="checkbox"/>            | <input type="checkbox"/> | Motion                                       |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Resolution                                   |
| <input type="checkbox"/>            | <input type="checkbox"/> | Ordinance                                    |
| <input type="checkbox"/>            | <input type="checkbox"/> | Legislative Digest                           |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Budget Analyst Report                        |
| <input type="checkbox"/>            | <input type="checkbox"/> | Legislative Analyst Report                   |
| <input type="checkbox"/>            | <input type="checkbox"/> | Introduction Form (for hearings)             |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Department/Agency Cover Letter and/or Report |
| <input type="checkbox"/>            | <input type="checkbox"/> | MOU  |
| <input type="checkbox"/>            | <input type="checkbox"/> | Grant Information Form                       |
| <input type="checkbox"/>            | <input type="checkbox"/> | Grant Budget                                 |
| <input type="checkbox"/>            | <input type="checkbox"/> | Subcontract Budget                           |
| <input type="checkbox"/>            | <input type="checkbox"/> | Contract/Agreement                           |
| <input type="checkbox"/>            | <input type="checkbox"/> | Award Letter                                 |
| <input type="checkbox"/>            | <input type="checkbox"/> | Application                                  |
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#### OTHER

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|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <u>Contract for Central Subway*</u>       |
| <input type="checkbox"/> | <input type="checkbox"/> | <u>Appendix A to Contract*</u>            |
| <input type="checkbox"/> | <input type="checkbox"/> | <u>Appendices B, G, H, M to Contract*</u> |
| <input type="checkbox"/> | <input type="checkbox"/> | <u>Appendix N*</u>                        |
| <input type="checkbox"/> | <input type="checkbox"/> | _____                                     |

Completed by: Gail Johnson

Date 2/19/10

Completed by: \_\_\_\_\_

Date \_\_\_\_\_

\* An asterisked item represents the cover sheet to a document that exceeds 25 pages. The complete document is in the file.



1 [Approving Central Subway Final Design Contract Package No. 2 – Stations]

2  
3 **Resolution approving Municipal Transportation Agency Contract No. CS-149, Program**  
4 **Management and Construction Management Services for the Central Subway Project**  
5 **with, a Joint Venture of Parsons Brinkerhoff, Inc., in an amount not to exceed**  
6 **\$39,949,948 for a term not to exceed ten years with an option to extend the term an**  
7 **additional two years.**

8  
9 WHEREAS, Design and construction of the 1.75-mile Central Subway ("Central  
10 Subway Project") is Phase 2 of the Third Street Light Rail Project; and

11 WHEREAS, The San Francisco Municipal Transportation Agency ("SFMTA") Board of  
12 Directors adopted Resolution No. 02-144 on June 7, 2005, which selected the Fourth Street  
13 alignment as the Locally Preferred Alternative for the Central Subway Project, which  
14 alternative was carried through the Supplemental Environmental Impact  
15 Statement/Environmental Impact Report and the federal New Starts Process for the funding  
16 the Central Subway Project, and,

17 WHEREAS, The SFMTA Board of Directors adopted Resolution No. 08-029 on  
18 February 19, 2008, which selected the Central Subway Project Alternative 3B,  
19 Fourth/Stockton Alignment with semi-exclusive surface rail operations on Fourth Street, as the  
20 Locally Preferred Alternative; and,

21 WHEREAS, The San Francisco Planning Commission adopted Motion No. M-17668 on  
22 August 7, 2008, which certified completion of the Central Subway Final Supplemental  
23 Environmental Impact Report; and,

24 WHEREAS, The SFMTA Board of Directors adopted Resolution No. 08-150 on August  
25 19, 2008, which adopted the Central Subway Project Alternative 3B, Fourth/Stockton

1 Alignment with semi-exclusive surface rail operations on Fourth Street and a construction  
2 variant to extend the tunnel another 2,000 feet north of Jackson Street, the CEQA Findings  
3 and Statement of Overriding Considerations for the SEIS/SEIR and the Mitigation Monitoring  
4 and Reporting Plan; and,

5 WHEREAS, The SFMTA Board of Directors adopted Resolution No. 09-055 on April  
6 17, 2009, which authorized the Director of Transportation to issue a Request for Proposals  
7 ("RFP") for SFMTA Contract No. CS-155 for Professional Architectural and Engineering  
8 Services for the final Design and Construction of the Central Subway, evaluate proposals,  
9 select the highest ranking proposal, and negotiate a contract for Contract No. CS-155,  
10 Professional Architectural and Engineering Services for the Final Design and Construction  
11 Phases of the Central Subway Project; and,

12 WHEREAS, The anticipated complexity of the Central Subway Project, in proximity to  
13 sensitive urban structures and facilities, poses significant design and construction challenges  
14 to the City; and,

15 WHEREAS, The City does not have the specialized expertise or staff resources to  
16 design and support the construction a project of the size and intricacy of the Central Subway  
17 Project; and,

18 WHEREAS, the Central Subway Project will construct three new underground subway  
19 stations ("the Stations"): the Moscone Station located adjacent to the Moscone Convention  
20 Center; the Union Square Market Street Station located at Stockton Street and O'Farrell  
21 Streets; and, the Chinatown Station located at Stockton and Jackson Streets; each to be  
22 constructed by a combination of cut-and-cover and traditional mining techniques; and,

23 WHEREAS, The SFMTA subsequently amended the RFP to divide the final design  
24 work for the Central Subway into three packages: (1) Tunnels and Utility Relocation –  
25

1 Contract CS-155-1; (2) Stations – Contract CS 155-2; and, (3) Control Systems and  
2 Trackways – Contract CS-155-3; and,

3 WHEREAS, The SFMTA conducted a competitive selection process in which the  
4 proposal for design of the Stations submitted by the Central Subway Design Group, a joint  
5 venture partnership of Parsons Brinkerhoff, Inc., Michael Willis Architects, Inc., and Kwan  
6 Henmi Architecture and Planning, Inc., was the highest ranked of two responsible and  
7 responsive proposers for design of the Stations; and,

8 WHEREAS, Staff and the Central Subway Design Group engaged in a lengthy and  
9 detailed negotiations for Contract CS 155-2 to determine the costs and resources necessary  
10 to design the Stations; and,

11 WHEREAS, The City Engineer's estimate for the costs to design the Stations was  
12 \$ \_\_\_\_\_; and,

13 WHEREAS, The negotiated amount for the base contract work during the initial ten-  
14 year term is not to exceed \$35,059,252 for base contract work and \$4,890,707 for optional  
15 work (optional work to be exercised at the discretion of the SFMTA), for a total contract  
16 amount not to exceed \$39,949,948 and,

17 WHEREAS, On December 1, 2009, the SFMTA Board of Directors by Resolution No.  
18 09-202 authorized award of Contract CS-155-2 for final design of the Stations to the Central  
19 Subway Design Group, in a total amount not to exceed \$39,949,948 for base contract and  
20 optional services, for a term not to exceed ten years and an option to extend the term an  
21 additional two years; and,

22 WHEREAS, Services provided under this contract are subject to and contingent upon  
23 approval of the Civil Service Commission; now, therefore, be it

24 RESOLVED, That the Board of Supervisors approves San Francisco Municipal  
25 Transportation Agency Contract No. CS-155-2 for final design of the Moscone Station, the

1 Union Square Market Street Station, and the Chinatown Station for the Central Subway  
2 Project awarded to the Central Subway Design Group, a Joint Venture Partnership of Parsons  
3 Brinkerhoff, Inc., Michael Willis Architects, Inc., and Kwan Henmi Architecture and Planning,  
4 Inc., in an amount not to exceed \$39,949,948 for base contract work and optional services, for  
5 a term not to exceed ten years with an option to extend the term an additional two years, said  
6 option to be exercised by the SFMTA without further action by the Board of Supervisors.

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**Item 4**  
**File 10-0007**

**Department(s):**  
Municipal Transportation Agency (MTA)

## EXECUTIVE SUMMARY

### Legislative Objective

- The proposed resolution would approve a not-to-exceed \$39,949,948 contract between the City and County of San Francisco, acting on behalf of the Municipal Transportation Agency (MTA), and Central Subway Design Group for Design Package #2 services for a not-to-exceed term of ten years with one optional two-year extension.

### Fiscal Impact

- The proposed not-to-exceed \$39,949,948 Design Package #2 contract would be awarded to Central Subway Design Group, a joint venture, to (a) provide the MTA with basic and optional final design services for the construction of the three underground subway stations in the Central Subway Project (Union Square/Powell/Market Street, Chinatown, and Moscone Center/Yerba Buena), and (b) integrate designs by City staff and the Central Subway contractor for Design Packages #1 and #3.
- The amount shown in the proposed resolution, \$39,949,948, is incorrect. The contract's correct not-to-exceed amount is \$39,949,959.
- The proposed \$39,949,959 Design Package #2 contract would be funded with (a) \$12,445,585 in 5309 Federal New Starts grant funds, (b) \$4,086,054 in State Traffic Congestion Relief Program funds (c) \$345,237 in State Regional Transportation Improvement Program funds, (d) \$9,013,481 in State Proposition 1B funds, (e) \$11,202,415 in San Francisco County Transportation Authority Proposition K (Sales Tax) funds and (f) \$2,857,187 in San Francisco Utility Reimbursement funds.
- The total estimated budget of \$66,449,959 for (a) Design Package #1, (b) the subject Design Package #2 and (c) Design Package #3 is \$25,322,959, or 61.6 percent higher than the MTA's original budget of \$41,127,000 because (a) the current estimated Year of Expenditure costs include not only basic, but also optional design costs, (b) the design contractors are now required to commit to Design to Budget Contract Provisions that their Central Subway Project designs will not exceed 105 percent of the construction budget, which increases the contractor's risk and, therefore, increases the design contractors' fixed fee to assume such risk, and (c) the MTA revised the Request for Proposal (RFP) during the solicitation from awarding one professional design contract to three professional design contracts to maximize the design contracting opportunities for Small Business Enterprises (SBEs), which resulted in an increased number of SBE subcontractors and an increase in administrative, management design integration risk expenses for each design contract. The additional \$25,322,959 will be funded from the Central Subway Project's Unallocated Contingency Fund, which has a current balance of \$213,744,000.

### Recommendations

- Amend the proposed resolution to state the contract's correct not-to-exceed amount is \$39,949,959 and not \$39,949,948.

- Given that there is no assurance the competitive bids for construction of the underground subway stations will result in costs to the MTA that are less than 105 percent of the construction budget, yet the proposed \$39,949,959 design contract provides a Fixed Fee of \$3,783,539 that includes the contractor's assumption of this risk, the Budget and Legislative Analyst considers approval of the proposed resolution, as amended, to be a policy matter for the Board of Supervisors.



**BACKGROUND/MANDATE STATEMENT****Background**

The MTA's proposed Central Subway Project will provide a new underground transit connection between Chinatown (Washington Street and Stockton Street) and the Caltrain Terminal/Muni T-Line (King Street and Fourth Street). The Central Subway Project will have three underground subway stations (Moscone Center/Yerba Buena, Union Square/Powell/Market Street, and Chinatown) and one surface station (Fourth Street and Brannon Street). In order to complete the Central Subway Project, tunneling, cut and cover mined-excavation<sup>1</sup> and construction under City streets and under BART and Muni lines will be required. Final Design work began on January 4, 2010, with completion of construction scheduled for 2018, or in approximately eight years. The estimated total cost for the Central Subway Project is \$1.578 billion.

As stated in the January 5, 2010 memorandum to the Board of Supervisors (Attachment I), from Mr. Nathaniel Ford, Executive Director/CEO of the MTA, the City does not have the specialized design expertise or staff resources to perform all services necessary for a project of this size and complexity. The professional design services required for the Central Subway Project is divided into three design packages: (a) Design Package #1 – Utilities Relocation and Tunnel Design<sup>2</sup>, (b) Design Package #2 – Stations Design<sup>3</sup> (subject of this request), and (c) Design Package #3 – System and Integration<sup>4</sup>. On April 7, 2009 the MTA issued a Request for Proposal (RFP) for Central Subway Professional Final Design Services. On July 21, 2009, the MTA received five proposals, which included one proposal for Design Package #1, two proposals for Design Package #2, and two proposals for Design Package #3.

On October 20, 2009, the MTA Board of Directors awarded Design Package #1 to PB Telamon, a joint venture of Parsons Brinckerhoff, Inc. and Telamon Engineering Consultants, Inc., private firms, for a five-year term, not-to-exceed \$6,500,000 (MTA Board of Directors Resolution No. 09-177). Since the Design Package #1 contract was under \$10,000,000 and did not exceed ten years, this contract was not subject to Board of Supervisors approval.

For Design Package #2 (subject of this request), the MTA received two written proposals from: (a) ARUP, and (b) the Central Subway Design Group, a joint venture of three private firms Parsons Brinckerhoff, Inc., Michael Willis Architects, Inc., and Kwain Henmi Architecture and Planning, Inc. The MTA Technical Selection Committee<sup>5</sup> evaluated and scored the written proposals and oral presentations for both firms. As shown in Table 1 below, the Central Subway

<sup>1</sup> Cut and cover mined-excavation is defined as removing soil utilizing traditional sequential excavation methods.

<sup>2</sup> Design Package #1 provides Central Subway Project final design and construction oversight services for the construction of tunnels and utility relocations.

<sup>3</sup> Design Package #2 provides final design and construction oversight services for the construction of the three underground subway stations and (b) integrates the designs created by City staff and the Central Subway contractor for Design Package #1.

<sup>4</sup> Design Package #3 provides final design and construction oversight services for controls, communications, traction power, trackway, and construction of one surface station and (b) integrates the designs created by City staff and the Central Subway contractors for Design Packages #1 and #2.

<sup>5</sup> The MTA Technical Selection Committee consisted of seven members from various MTA divisions, other City departments, and BART.

Design Group had the highest scored proposal with 45.61 out of a total possible score of 55.20 points.

**Table 1: Design Package #2 Proposals**

Bidders	Written Presentation Score	Oral Presentation Score	Total
<b>Total Possible Score</b>	<b>34.20</b>	<b>21</b>	<b>55.20</b>
ARUP	27.80	17.32	<b>45.21</b>
Central Subway Design Group	29.06	16.55	<b>45.61</b>

Source: MTA

The MTA entered into negotiations with the Central Subway Design Group on September 9, 2009. On December 1, 2009, the MTA Board of Directors authorized the MTA Executive Director to execute the subject not-to-exceed \$39,949,959 Design Package #2 contract with Central Subway Design Group, for a not-to-exceed ten years, estimated to commence on March 15, 2010 and end on March 14, 2020 with one two-year option to extend through March 14, 2022 (MTA Board of Directors Resolution No. 09-202). According to Mr. John Funghi, MTA Central Subway Program Manager, the MTA will issue a Notice to Proceed to commence the contract (a) after this proposed resolution is approved by the Board of Supervisors and (b) once the Controller's Office issues the certification of funds and the MTA receives the requested insurance and other related documents from the Central Subway Design Group.

Mr. Funghi advises that the MTA is in the final stages of awarding the contract for Design Package #3, such that the contract is expected to be approved by the MTA Board of Directors on February 16, 2010. According to Mr. Funghi, the contract for Design Package #3 will be an estimated \$20,000,000, which would be subject to future Board of Supervisors approval.

### **Mandate Statement**

In accordance with Charter Section 9.118(b), any contracts or agreements exceeding ten years and/or greater than \$10,000,000 is subject to Board of Supervisors approval.

## **DETAILS OF PROPOSED LEGISLATION**

The proposed resolution would approve a not-to-exceed \$39,949,959 contract between the City and County of San Francisco, acting on behalf of the MTA, and the Central Subway Design Group, a joint venture, for Design Package #2 Station Design services for up to ten years, with one optional two-year extension.

Under the proposed Design Package #2 contract, the Central Subway Design Group will conduct architectural, engineering and other design services for three underground Central Subway stations (i) Union Square/Powell/Market Street, (ii) Chinatown, and (iii) Moscone Center/Yerba Buena), which includes (a) verifying costs and schedules for each construction contract, (b) preparing construction contract documents for the three underground Central Subway stations, (c) providing as-needed professional and geotechnical engineering support during construction, (e) reviewing and responding to technical submittals from contractors, (f) preparing plans and

specifications, and (g) implementing a quality control program in performing final design services.

As stated in the proposed Design Package #2 contract, the contract's actual not-to-exceed amount is \$39,949,959, which is \$11 more than the proposed not-to-exceed contract amount of \$39,949,948, listed in the proposed resolution. According to Mr. Funghi, the amount shown on the proposed resolution is incorrect. The Budget and Legislative Analyst recommends amending the proposed resolution to state the contract's correct not-to-exceed amount of \$39,949,959.

The funding sources for the proposed \$39,949,959 Design Package #2 contract are shown in Table 2 below and further detailed in Attachment II, provided by Mr. Lewis Ames, Central Subway New Starts Manager of MTA.

**Table 2: Source of Funds for Design Package #2 Contract**

	Percent	Total
5309 Federal New Starts grant funds <sup>6</sup>	31.2%	\$12,445,585
State Traffic Congestion Relief Program (TCRP) funds <sup>7</sup>	10.2%	4,086,054
State Regional Transportation Improvement Program (RTIP) funds <sup>8</sup>	0.9%	345,237
State Proposition 1B funds <sup>9</sup>	22.6%	9,013,481
San Francisco County Transportation Authority Proposition K (Sales Tax) funds <sup>10</sup>	28.0%	11,202,415
San Francisco Utility Reimbursement funds <sup>11</sup>	7.1%	2,857,187
<b>Total</b>	<b>100.0%</b>	<b>\$39,949,959</b>

Source: MTA

Of the total proposed \$39,949,959 contract funding sources, the MTA has previously received \$24,316,253. According to Mr. Ames, the MTA Board of Directors approved accept and expend resolutions for \$9,013,481 of State Proposition 1B funds on September 1, 2009 (MTA Board of Directors Resolution No. 09-146) and \$12,445,585 of 5309 Federal New Starts grant funds on September 19, 2006 and August 5, 2008 (MTA Board of Directors Resolution Nos. 06-112 and 08-128) and the MTA has collected \$2,857,187 of San Francisco Utility Reimbursement funds. Of the balance needed of \$15,633,706, Mr. Ames advises that MTA anticipates receiving approval for \$4,086,054 of State TCRP funds at the Transportation Authority Board meeting on March 23, 2010. Mr. Ames also advises that the MTA anticipates receiving \$345,237 State RTIP funds in FY 2015-2016. According to Mr. Ames, the San Francisco County Transportation

<sup>6</sup> 5309 Federal New Starts funds (49 U.S.C. 5309) provide capital assistance for: (a) new and replacement buses and facilities, (b) modernization of existing rail systems, and (c) new fixed guideway systems (New Starts).

<sup>7</sup> The State Traffic Congestion Relief Program provides funding for (a) congestion relief projects within the State, (b) the State Transportation Improvement Program (a multi-year capital improvement program of transportation projects), (c) local streets and roads improvements, and (d) the Public Transportation Account (a trust fund for transportation planning and mass transportation projects).

<sup>8</sup> The State Regional Transportation Improvement Program provides funding for regional transit, State highway, local road, bicycle and pedestrian projects.

<sup>9</sup> The State Proposition 1B funds provide improvements to transportation facilities to reduce local traffic congestion and further deterioration, improve traffic flows, or increase traffic safety.

<sup>10</sup> On November 4, 2003, San Francisco voters approved Proposition K to (a) collect a ½ percent Sales Tax to finance transportation projects for the City and (b) approve a new 30-year Transportation Expenditure Plan.

<sup>11</sup> San Francisco Utility Reimbursement funds are fees that the City charges utility companies (electric, phone, cable) to allow placement of utility equipment on City property (buildings, roads, underground). Utility Reimbursement funds can be used by the City to pay for managing and relocating utility equipment.

Authority will provide \$11,202,415 of Proposition K (Sales Tax) funds on a reimbursement basis.

**FISCAL ANALYSIS**

**Breakdown of Design Package #2 Contract Budget**

The proposed Design Package #2 contract’s not-to-exceed budget of \$39,949,959, for the Central Subway Project design work related to the three underground subway stations ((a) Union Square/Powell/Market Street, (b) Chinatown, and (c) Moscone Center/Yerba Buena), is summarized in Table 3 below and detailed on page 5 of Attachment I.

**Table 3: Central Subway Design Group Design Package #2 Contract Budget**

Tasks	Basic Service* Year of Expenditure** Costs	Optional Service Year of Expenditure Costs	Total
Labor Costs	\$30,849,234	\$4,379,386	\$35,228,620
Fixed Fees for the unreimbursed costs, profit and assumption of risk for guaranteeing the construction cost limits	3,308,718	474,821	3,783,539
Other Direct Costs (Reimbursable Expenses)	901,300	36,500	937,800
<b>Total</b>	<b>\$35,059,252</b>	<b>\$4,890,707</b>	<b>\$39,949,959</b>

Source: MTA

\* As shown in Attachment I, the basic services are divided into the following 16 tasks: (1) Project Management and Control, (2) Design and Project Integration, (3) Geotechnical Investigations, (4) Surveying and Right-of-Way, (5) Traffic Engineering, (6) Utility Design Coordination, (7) Drainage, (8) Permits, (9) Contract Specifications, (10) Cost Estimate and Scheduling, (11) Quality Control, (12) Drawings and Documents, (13) Construction Packaging and Schedules, (14) Outreach Support, (15) Bid Support Services, and (16) Design Services during Construction.

\*\* Calculating the Year of Expenditure (YOE) costs is a Federal Transit Administration requirement. An annual escalation factor is added to the first-year cost estimate and is applied to each year of the project budget.

As shown on page 1 of Attachment I, the optional services, which must be approved by the MTA Executive Director, are divided into the following five tasks: (1) Design and Project Integration, (2) Traffic Engineering, (3) Drainage, (4) Drawing and Documents and (5) Design Services during Construction. According to Mr. Funghi, such optional design service costs will only be incurred if (a) City in-house staff are unable to initiate or complete the work, or (b) additional services are required to complete the prescribed tasks.

The \$3,783,539 in Fixed Fees shown in Table 3 above is approximately 9.47 percent of the total Design Package #2 contract cost of \$39,949,959. Fixed Fees would cover unreimbursed costs<sup>12</sup>, assumption of risk<sup>13</sup> and profit.

Mr. Funghi advises that the \$937,800 in Other Direct Costs, as shown in Table 3 above, includes \$559,500 for basic travel expenses, \$341,800 for other basic expenses and \$36,500 for optional other expenses. According to Mr. Funghi, basic travel expenses of \$559,500 would cover the air,

<sup>12</sup> According to Mr. Funghi, unreimbursed costs are costs expended during the course of completing the contract work, but not considered a Federal reimbursable expense (i.e. travel expenses beyond the Federal reimbursement rate, non-specialty computers and software costs, etc.).

<sup>13</sup> Mr. Funghi advises that potential risks for Design Package #2 include the contractor working additional hours to redo a prescribed task in order to comply with the contracts design to budget provisions.

hotel and per diem travel costs of outside peer reviewers and other short-term specialty consultants, and the relocation costs of permanent full-time consultants transferred from other locations in the country. According to Mr. Funghi, other basic expenses include (a) the cost to hire outside peer reviewers and other short-term specialty consultants, (b) reimbursements to third-party vendors, such as BART-required safety monitors, (c) specialty software and/or equipment needed to complete the contract work and (d) other reimbursable non-travel expenses.

### Total Design Contract Costs for the Central Subway Project

The MTA originally estimated that the basic design of the Central Subway Project would cost approximately \$41,127,000. As shown in Table 4 below, the MTA's current budgeted \$66,449,959 for the three Central Subway Project design contracts is \$25,322,959, or 61.6 percent higher than the original estimated amount. Of the \$66,449,959 budgeted, \$16,363,782 was appropriated by the Board of Supervisors in the MTA's FY 2009-2010 budget, which will cover approximately \$9,200,358 of the Design Package #2 contract (\$4,983,728 is appropriated for Design Package #1 contract and \$2,179,696 is appropriated for Design Package #3 contract). The remaining \$50,086,177 (\$66,449,959 less \$16,363,782) of the \$66,449,959 design contract costs would be subject to future Board of Supervisors appropriation approval.

**Table 4: Central Subway Design Project Budget**

	<b>Amount</b>
<u>Original Budget Estimate</u>	
Design Contract	\$41,127,000
<b>Original Budget Total (A)</b>	<b>\$41,127,000</b>
<u>Current Budget Estimate</u>	
Design Package #1	\$6,500,000
Design Package #2 (subject of this request)	39,949,959
Design Package #3	20,000,000*
<b>New Budget Total (B)</b>	<b>\$66,449,959</b>
<b>Increase over Original Budget (B) less (A)</b>	<b>\$25,322,959</b>

Source: MTA

\* Design Package #3 is an estimated \$20,000,000. The MTA is in the final stages of awarding the contract, which will be subject to future Board of Supervisors approval.

According to Mr. Funghi, the \$25,322,959 increase is because the (a) current estimates include basic as well as optional design costs, (b) the design contractors are required to commit to Design to Budget Contract Provisions that their Central Subway designs will not exceed 105 percent of the construction budget, which increases the consultant's risk and, therefore, increases the consultant's fixed fee to assume such risk, (see Central Subway Station Design Construction Cost Limits in Policy Analysis section below), and (c) the MTA revised the RFP from awarding one design contract to three design contracts to maximize the design contracting opportunities for Small Business Enterprises (SBE), which increased the number of SBE subcontractors under Design Package #1 and Design Package #2 and also, which resulted in an increased number of SBE subcontractors and an increase in administrative, management and design integration risk expenses for each design contract (see Small Business Enterprise Requirements in Policy Analysis section below).

According to Mr. Funghi, in the fall of 2009, the Federal Transit Administration (FTA) was aware of the increase in design costs and approved the MTA entering into Final Design on January 7, 2010 for the Central Subway Project. According to Mr. Funghi, the additional

\$25,322,959 will be allocated from the Central Subway Project Unallocated Contingency Fund, which currently has a balance of approximately \$213,744,000. This Fund receives its monies from Federal, State and/or local funding sources<sup>14</sup>.

## **POLICY ANALYSIS**

### **Subway Station Design Experience of the Central Subway Design Group**

According to Mr. Funghi, although the Central Subway Design Group joint venture was not involved in the design of MTA's existing underground subway stations, the Central Subway Design Group has previous subway station design experience in basic subway station design, in areas prone to seismic activity and for a population with high Americans with Disabilities Act (ADA) ridership, including: Valley Metro in Phoenix, Gold line extension in Los Angeles, Sound Transit Central Link in Seattle and Number 7 Line Subway Extension in New York City.

### **Central Subway Station Design Construction Cost Limits**

According to Mr. Funghi, prior to competitively bidding the three design packages, the MTA established the following construction budgets (without contingency amounts) for the three underground subway stations: (a) \$167,325,527 for the Union Square/Powell/Market Street Station, (b) \$140,498,396 for the Chinatown Station and (c) \$86,396,116 for the Moscone Center/Yerba Buena Station.

As stated in the February 18, 2010 memorandum (Attachment III), from Mr. Funghi, the design contractor, Central Subway Design Group joint venture, is contracted to ensure that the station construction cost will not exceed 105 percent of the above-noted construction budget amounts. The February 18, 2010 memorandum states that the Central Subway Design Group joint venture has absorbed the additional risk to satisfy the above design to budget contract provisions within the fixed fee contract amount. As stated in the February 18, 2010 memorandum, the total negotiated fixed fee amount of \$3,783,539 for this proposed contract is comparable to other design contracts of this size and complexity, which is in the 10 percent range. The Fixed Fee is approximately 9.47 percent of the Design Package #2 contract total maximum amount of \$39,949,959, which includes the risk and guarantee that the construction costs would not exceed 105 percent of the construction budget prior to competitive bidding, unreimbursed expenses and profit.

As stated in the February 18, 2010 memorandum, the MTA and the Program Central Subway Project Management and Construction Management (PMCM) contractor<sup>15</sup> will review the design and estimated construction costs estimates based on the plans for each station when the design work is (a) 65 percent, (b) 90 percent and (c) 100 percent completed. According to Mr. Funghi,

<sup>14</sup> According to Mr. Funghi, the Unallocated Contingency Fund would be funded by Federal, State and/or local funding depending on when funds are needed and what funds the MTA has received. Federal, State and local funding includes (a) 5309 Federal New Starts funds, (b) Federal Congestion Mitigation and Air Quality funds, (c) State Regional Transportation Improvement Program funds, (d) State Traffic Congestion Relief Program funds, (e) State Proposition 1B funds and (f) San Francisco County Transportation Authority Proposition K (Sales Tax) funds.

<sup>15</sup> On January 16, 2009, the Board of Supervisors awarded the Program Management and Construction Management contract to a joint venture of AECOM USA, Inc. and EPC Consultants, private firms, for a five-year term, not-to-exceed \$147,375,171 (File No. 08-1454).

the MTA and PMCM contractor would consider the market conditions, the current costs of labor and supplies and the existing bidding climate when estimating the construction costs. The February 18, 2010 memorandum states that if the design plans result in construction costs exceeding the prescribed station budget amounts by 105 percent during the design stage, the MTA would request that the Central Subway Station Design Group joint venture redesign the stations at no additional cost to the MTA.

The February 18, 2010 memorandum also states that MTA recognizes that there is no guarantee that engineering estimates will prevent construction bids coming in over budget, but “believes that the ‘Design to Budget’ provision imposes fiscal obligations on the Consultant [Central Subway Design Group joint venture] for non-performance that will make it more likely that the construction bids will be at or below 105 percent of the construction budget.”

As stated in the February 18, 2010 memorandum, “according to the City Attorney, similar ‘Design to Budget’ contract provisions have been previously utilized in the following City of San Francisco sponsored projects: General Hospital and Cruise Terminal project.” For example, on October 2, 2008, the Board of Supervisors approved an architectural and engineering design services contract between the City and Fong & Chan Architects for a total of \$9,750,000, which has ‘Design to Budget’ contract provisions (File No. 08-0797). According to Mr. Judson True, Communications Manager for the MTA, the MTA will provide a list of City contracts that have ‘Design to Budget’ contract provisions and has been submitted to the Board of Supervisor for approval to the Budget and Finance Committee on February 24, 2010.

Given that there is no assurance the competitive bids for construction of the underground subway stations will result in costs to the MTA that are less than 105 percent of the construction budget, yet the proposed \$39,949,959 design contract provides a Fixed Fee of \$3,783,539 that includes the contractor’s assumption of this risk, the Budget and Legislative Analyst considers approval of the proposed resolution to be a policy matter for the Board of Supervisors.

### **Small Business Enterprise Requirements**

As stated on page 3 of Attachment I from Mr. Ford, the Design RFP was originally written for MTA to award one contract with a goal of reaching a 30 percent Small Business Enterprise<sup>16</sup> (SBE) participation. The attached memorandum from Mr. Ford states that during the proposal period, the public and professional engineering community was concerned that SBEs would be unable to serve in key leadership roles under the original RFP. In order to ensure that (a) design contracting opportunities for Small Business Enterprises were maximized and (b) such businesses had meaningful leadership roles in the design contracts, the MTA staff revised the RFP to divide the original design contract into the three separate design packages: (a) Design Package #1 – Utilities Relocation and Tunnel Design, (b) Design Package #2 – Stations Design, design of the three underground subway station (subject of this request) and (c) Design Package #3 – System and Integration.

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<sup>16</sup> As stated in the Design Package #2 contract, Small Business Enterprises are for-profit, small businesses that (a) have a three-year average gross revenue not exceeding \$12 million and (b) are certified by the State of California’s Small Business Program with the Department of General Services, the City and County of San Francisco’s Local Business Enterprise (LBE) Program, or the California Unified Certification Program.

As a result of the revised RFP, Design Package #1 has (a) a 32 percent overall SBE participation (18 SBE firms and non-SBE firms<sup>17</sup>) and (b) one SBE firm in a key leadership role. Design Package #2 has (a) a 36.6 percent overall SBE participation (21 SBE firms<sup>18</sup>) and (b) one Disadvantaged Business Enterprise<sup>19</sup> (DBE) firm, Kwan Henmi Architecture Planning, Inc., in a key leadership role.

According to Mr. Funghi, dividing the design contract into three separate design contracts provided SBEs with a greater opportunity to become joint venture partners and subcontractors. However, according to Mr. Funghi, this has resulted in increased design and coordination expenses. Mr. Funghi advises that the design cost increased because (a) there are additional administrative costs from having 18 SBE and non-SBE subcontractors in Design Package #1 and 20 SBE subcontractors in Design Package #2 (see Footnote No. 17), and (b) there were increases in the joint venture partners' management and risk costs to ensure that all subcontractors' designs are properly integrated and managed and all subcontractors are completing their specific tasks.

### **MTA's Design and Construction Cost Controls**

Mr. Funghi advises that in addition to the design review and cost estimate check points stated above, the MTA established a Configuration Management Board<sup>20</sup> to (a) review and approve or disapprove any proposed changes to the design and/or construction plans and budget, (b) ensure that any changes meet the criteria and thresholds defined by the Configuration Management System<sup>21</sup> and (b) monitor the cost and progress of the design and construction of the Central Subway Project.

According to Mr. Funghi, any proposed design or construction changes include City-generated, contractor-generated or site condition-generated changes. City-generated changes could be requested by the MTA or other City departments and may or may not affect the cost of the budget and would require approval from the MTA Configuration Management Board. Contractor-generated changes could include unanticipated changes to the design and/or construction plan. Condition-generated changes would be unanticipated environmental changes, which the MTA and the design and/or construction contractor could not have anticipated, such as encountering unexpected soil conditions during drilling. Both contractor-generated changes and site condition-generated changes may or may not affect the cost of the budget and would require approval from the MTA Configuration Management Board.

According to Mr. Funghi, the Configuration Management Board would review all proposed City-generated, contractor-generated or site condition-generated changes in accordance with the

<sup>17</sup> Non-SBE firms are firms that do not have SBE status.

<sup>18</sup> SBE firms include the joint venture partner, Kwan Henmi Architecture Planning, Inc., and 21 SBE subcontractors, (a) AR Sanchez-Corea & Associates, Inc., (b) Carey & Co., Inc., (c) CHS Consulting, (d) Cornerstone Transportation Consulting Inc., (e) Creegan + D'Angelo Engineers, (f) F.E. Jordan Associates, Inc., (g) F.W. Associates, Inc., (h) Fong Brothers Printing, Inc., (i) Forell/Elsesser Engineers, Inc., (j) HortScience, Inc., (k) Martin M. Ron Associates, (l) Robin Chaing & Company, (m) SC Solutions, Inc., (n) Silverman & Light, Inc., (o) S.J. Engineers, (p) Stevens & Associates, (q) Telamon Engineering, (r) Timmons Design Engineers, (s) Trans Pacific Geotechnical Consultants, Inc., and (t) YEI Engineers, Inc.

<sup>19</sup> Professional, architect, and/or engineering business are Disadvantaged Business Enterprises if (a) located in San Francisco and (b) have average gross annual receipts in the last three fiscal years that do not exceed \$2,500,000.

<sup>20</sup> The Configuration Management Board consists of seven voting MTA staff and six non-voting MTA staff.

<sup>21</sup> The Configuration Management System is the system that coordinates, controls, tracks, records, approves, and implements changes to the Central Subway Project baseline configuration, which include drawings, specification, criteria manuals, procedures, cost estimates, schedules and quality objectives that were approved by the Configuration Management Board.



approved Central Subway Change Control Process. The Central Subway Change Control Process is a guideline that details the process and responsibilities of the MTA staff, contractors and the Configuration Management Board when a proposed change to the design plan or budget is requested. According to Mr. Funghi, the Configuration Management Board not only determines whether a proposed change to the design and/or construction would affect the cost of the budget, but also, whether it affects the quality of the design and/or construction plans.

### **Civil Service Commission Review for the Design Package #2 Contract**

As stated in the proposed resolution, the professional design services provided under the proposed Design Package #2 contract are subject to and contingent upon approval by the Civil Service Commission to verify that the work provided by the Central Subway Design Group cannot be performed by existing City staff. Mr. Funghi advises that the proposed Design Package #2 contract was approved by the Civil Service Commission on December 21, 2009.

### **RECOMMENDATIONS**

1. Amend the proposed resolution to state that the contract's correct not-to-exceed amount is \$39,949,959 and not \$39,949,948.
2. Given that there is no assurance the competitive bids for construction of the underground subway stations will result in costs to the MTA that are less than 105 percent of the construction budget, yet the proposed \$39,949,959 design contract provides a Fixed Fee of \$3,783,539 that includes the contractor's assumption of this risk, the Budget and Legislative Analyst considers approval of the proposed resolution, as amended, to be a policy matter for the Board of Supervisors.



Municipal Transportation Agency

CS Letter No. 0399

Gavin Newsom | Mayor

Tom Nolan | Chairman

Dr. James McCray Jr. | Vice-Chairman

Cameron Beach | Director

Shirley Breyer Black | Director

Malcolm Heinicke | Director

Jerry Lee | Director

Bruce Oka | Director

Nathaniel P. Ford Sr. | Executive Director/CEO

**Date:** January 5, 2010**To:** Honorable Members of the Board of Supervisors**From:** Nathaniel P. Ford Sr.  
Executive Director/CEO

**Subject:** Request for Approval of Contract CS-155-2 between the SFMTA and Central Subway Design Group for Professional Underground Station Design Services for the Central Subway.

The San Francisco Municipal Transportation Agency (SFMTA) requests approval of Contract CS-155-2 between the SFMTA and Central Subway Design Group for Professional Underground Station Design Services for the Central Subway for a total amount not to exceed \$39,949,959 and for a term not to exceed ten years, with an option to extend the term an additional two years. The purpose of the contract is to secure station architectural, engineering and other design services during the Central Subway design and construction phases.

### Background

The Third Street Light Rail Transit (LRT) Project is the most significant capital investment in generations for the SFMTA. Phase 1 of the 6.9-mile two-phase project, the T Third line, began revenue service in April 2007, restoring light rail service to the heavily transit-dependent Third Street corridor in eastern San Francisco for the first time in 50 years.

Phase 2, the Central Subway Project, will extend the new Third Street line by constructing three new subway stations and one surface station to provide rail service to the Financial District and Chinatown. The extended light rail line will serve regional destinations such as Union Square, the Moscone Convention Center, Yerba Buena and AT&T Park, and will connect directly to BART and Caltrain, the Bay Area's two largest regional-commuter rail services.

The primary purpose of the Third Street LRT Project is to provide residents with faster, more reliable and more comfortable transit service. Chinatown and the Financial District are two of the most congested and heavily developed areas in San Francisco. The Planning Department projects that by 2030, the population along the corridor of the Third Street Line and the proposed Central Subway alignment will increase

San Francisco Municipal Transportation Agency

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26 percent and employment will increase 61 percent, factors that are larger than the growth in population and employment anticipated for the City as a whole. The SFMTA estimates that the Central Subway will serve 56,000 riders in its first year of operation in 2016, increasing to 76,000 daily riders projected for 2030.

### **Project Design and Construction**

The Central Subway design consists of a short portion of in-street surface light rail in the southern portion of the system that transitions into subway operation for most of the alignment. Twin bore tunnels are proposed for the subway, with three new subway stations serving the Moscone/Yerba Buena, Union Square/Market Street and Chinatown areas. The Union Square/Market Street Station will interconnect with the existing BART/Muni Powell Street Station. The Project anticipates Federal Transit Administration (FTA) approval to begin the Final Design engineering work in January 2010. Construction is scheduled to begin in early 2010. The start of revenue operation is scheduled for 2018.

The SFMTA plans to construct the tunnels using a deep tunneling approach with Tunnel Boring Machines (TBMs), which compared to other tunneling methods will reduce surface disruption during construction, allow for a more direct alignment and shorten the construction period. The Central Subway tunnels will pass under the existing BART/Muni Market Street subway tunnels over 100 feet below the existing ground surface. Most of the alignment will be located under existing street right-of-way. Because the tunnels will follow public street right-of-ways, the City will only need to obtain a limited number of easements from property owners along the alignment.

Subway station construction methods will vary. The Moscone/Yerba Buena Station will be constructed using traditional top-down cut-and-cover construction. The Union Square/Market Street Station is located in a very constricted area, and will most likely be constructed using a combination of cut and cover and mined sequential excavation methods. Chinatown Station, also located in a very constricted area, will be constructed using mined sequential excavation. The subway stations will have center-platforms with passenger end-loading and are designed to accommodate high-floor, two-car trains. Whenever feasible, off-street properties have been identified for primary station access. The Moscone/Yerba Buena and Chinatown Stations may present Transit Oriented Development opportunities above the station entrance.

### **Purpose, Scope and Services Provided Under the Contract**

The Project poses significant and complex design and construction management and coordination challenges to the City. Design Package #2 will include tunneling, mined excavation and cut-and-cover construction in proximity to sensitive urban structures and facilities. The City does not have the specialized expertise or staff resources to perform all services necessary for the Project. Given the substantial capital

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investment in the Central Subway and the target project completion schedule of 2018, it is in the best interest of the City to engage a qualified consultant with specific experience and expertise in the design of underground stations to insure the successful delivery of the Central Subway phase of the Third Street LRT Project.

The Request for Proposal (RFP) for Professional Design Services was originally written to be evaluated, selected and awarded as a single design contract. It contained a 30 percent Small Business Enterprise (SBE) participation goal. During the proposal period the public and the professional engineering services community communicated their concerns that SBE's participate in the Project in key, meaningful and leadership roles.

Upon further analysis, staff revised the RFP to divide the scope of services into three separate design packages to maximize competition and opportunities for small and local businesses. The three design contracts are: Design Package #1 – Utilities Relocation and Tunnel Design, Design Package #2 – Stations Design and Design Package #3 – Systems and Integration. The revised RFP also encouraged prime proposers to place SBEs with local expertise in key roles by awarding up to two additional points for each firm placed in a key role based on the firm's status as an SBE and/or demonstrated local business expertise.

Under the SFMTA SBE program, SBE participation goals may be met by firms certified under any one of the three programs: the federal Disadvantaged Business Enterprise program, the California Department of General Services SBE program or the City and County of San Francisco's Local Business Enterprise (LBE) program. The recently awarded Design Package #1 (Utilities Relocation and Tunnel Design) contract has a 32 percent overall SBE participation, including 28 percent LBE participation. In addition, ten firms certified as LBEs or recently graduated from the LBE program are slated to perform key meaningful roles in the design work. In fact, one of the joint venture partners, Telamon Engineering Consultants, Inc., is a certified LBE.

The purpose of Design Package #2 is to secure architectural, engineering and other design services during the Central Subway design and construction phases for the new subway stations.

The Design Package #2 consultant will provide the following services:

- Verify cost and schedule for each construction contract;
- Prepare construction contract documents for
  - Moscone Station Contract
  - Union Square/Market Street Station Contract
  - Chinatown Station Contract;
- Furnish professional engineering services as necessary for final design;

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- Provide engineering support during construction;
- Provide as-needed geotechnical engineering support during construction;
- Review and respond to technical submittals from contractors;
- Prepare conformed plans and specifications upon contract completion;
- Implement a quality control program in performing final design services.

The initial ten-year term of the contract will focus on initial preparation of the design documents and specifications (that the SFMTA will use to competitively bid construction of the stations) and design services required during construction. The SFMTA may elect to extend the contract up to two years for warranty inspection and surveys that may be required during start-up testing and commissioning of the Central Subway.

To avoid conflicts of interest, the consultant and its key personnel and sub-consultants will be precluded from participating in any subsequent contracts for final design, project controls, construction and procurement services for the Central Subway Project.

#### **RFP Process and Contract Negotiation**

The SFMTA Board of Directors adopted Resolution No. 09-055 on April 7, 2009 authorizing the Executive Director/CEO to issue an RFP, receive and evaluate proposals, select the highest ranking proposal, and negotiate a contract for Contract No. CS-155, Professional Architectural and Engineering Services for the Final Design and Construction Phases of Central Subway.

Two pre-proposal conferences were held on April 28, 2009 and June 11, 2009. On July 21, 2009, four proposers submitted a total of five proposals for the three design packages. All proposals contained significant levels of participation for small businesses, including local business enterprises. Proposals for Design Package #2 were received from ARUP and from Central Subway Design Group, a joint venture of Parsons Brinckerhoff, Inc., Michael Willis Architects, Inc., and Kwan Hemni Architecture and Planning, Inc. Both proposals were evaluated by a technical selection committee comprised of members from various SFMTA divisions, other City Departments and BART. Central Subway Design Group was selected as the most qualified proposer for Design Package #2.

Negotiations with Central Subway Design Group have been underway since September 9, 2009. The negotiations have focused on clarifying the scope of work and determining reasonable compensation to ensure that the SFMTA and City are obtaining high quality and cost-effective services.

After completing these negotiations, SFMTA management recommended the award of the contract to Central Subway Design Group for Design Package #2. SFMTA successfully negotiated a contract with the Consultant for a total amount of

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\$39,949,959. The base contract for Final Design Package #2 (final design of the three subway stations) and construction support services within the initial ten year term is \$35,059,252. Options to provide additional related services have been negotiated for an amount not to exceed \$4,890,707.

The SFMTA Board of Directors adopted Resolution No. 09-202 on December 1, 2009 authorizing the Executive Director/CEO to execute Contract CS-155-2, Architectural and Engineering services for the Final Design and Construction of the Central Subway Project – Station Design, with Central Subway Design Group, for an amount not to exceed \$39,949,959 for all base and optional work to complete the final design of the Central Subway Stations, and for a term not to exceed ten years, with an option to extend the term for an additional two years.

The work breakdown (Hours and Year of Expenditure (YOE)\* Cost) for the Project is as follows:

Task #	Title	Base Hours	Base YOE Cost \$	Option Hours	Options YOE Cost \$
1.0	Program Management and Control	27,180	3,692,573	0	0
2.0	Design and Project Integration	4,160	648,941	1080	148,092
3.0	Geotechnical Investigations	10,140	1,410,477	0	0
4.0	Surveying and Right-Of-Way	1,280	139,113	0	0
5.0	Traffic Engineering	240	32,960	2880	388,462
6.0	Utility Design Coordination	1,716	201,202	0	0
7.0	Drainage	240	34,342	940	141,945
8.0	Permits	1,200	193,587	0	0
9.0	Contract Specifications	2,560	380,918	0	0
10.0	Cost Estimate and Scheduling	3,160	447,615	0	0
11.0	Quality Control	2,140	284,879	0	0
12.0	Drawings and Documents	139,680	15,771,911	25,784	3,009,757
13.0	Construction Packaging and Schedules	1,320	154,964	0	0
14.0	Outreach Support	1,000	114,691	0	0
15.0	Bid Support Services	1,800	260,561	0	0
16.0	Design Services During Construction	53,731	7,080,497	5,098	691,130
	Direct Labor Costs:	251,542	\$30,849,234	35,782	\$4,379,386
	Fixed Fees		\$3,308,718		\$474,821
	Other Direct Costs (Reimbursable Expenses)		\$901,300		\$36,500
	<b>Total:</b>	<b>251,542</b>	<b>\$35,059,252</b>	<b>35,782</b>	<b>\$4,890,707</b>

\* YOE Costs applies an escalation factor to a current year cost estimate, applied over an estimated project cash flow expenditure plan.

This contract solicitation ensured contracting opportunities for the small, local minority and woman business community and maximized opportunities for small, local businesses to have meaningful leadership roles for the program, while complying with the federal funding requirements. As a result of the solicitation and selection process this contract will be awarded to a Joint Venture that includes a small business

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establishment as a partner and is comprised of 31 professional services firms that will participate in the work, including 25 locally based businesses. Twenty-eight of the firms will perform in subprime roles with 21 of those firms being small business establishments. Overall this equates to an sbe participation level of 36.56 percent, which exceeds the established goal of 30 percent.

Optional professional services identified under this agreement include design and project integration, traffic engineering, drainage and design services during construction. The optional work category has been established to provide professional engineering and construction management support services for the duration of the Central Subway Program delivery if required. Optional services beyond the scope identified as base services shall be authorized upon the approval of the Executive Director/CEO.

**Recommendation**

The SFMTA requests that the Board of Supervisors approve Contract CS-155-2 to Central Subway Design Group, a joint venture of Parsons Brinckerhoff, Kwan Hemni Architecture and Michael Willis Architecture for an amount not to exceed \$39,949,959 for a term not to exceed ten years, with an option to extend the term an additional two years.

Attachment II

**Central Subway Project DP #2 Funding Sources by Year**

	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	FY 14/15	FY 15/16	FY 16/17	Total
<b>SOURCES</b>	<b>9,200,358</b>	<b>21,894,332</b>	<b>328,073</b>	<b>1,968,436</b>	<b>1,968,436</b>	<b>1,968,436</b>	<b>1,968,439</b>	<b>653,449</b>	<b>39,949,959</b>
Federal New Starts	2,270,030	4,060,476	292,180	1,344,515	1,116,744	1,384,303	1,323,888	653,449	12,445,585
State TCRP	4,086,054	-	-	-	-	-	-	-	4,086,054
State RTIP/Backstop	-	-	-	-	-	-	345,237	-	345,237
State PROP1B	2,844,274	5,346,593	-	180,367	367,400	230,717	44,130	-	9,013,481
Local PROP K	-	10,897,474	35,892	269,049	-	-	-	-	11,202,415
Local Utility Reimbursement	-	1,589,789	-	174,505	484,292	353,416	255,185	-	2,857,187

← Design Tasks 2010 thru 2012 | Design Field Support Construction Tasks thru 2017 →

**CS Project DP #2 Funding Sources Summary**

<b>SOURCES</b>	<b>39,949,959</b>
Federal New Starts	12,445,585
State TCRP	4,086,054
State RTIP/Backstop	345,237
State PROP1B	9,013,481
Local PROP K	11,202,415
Local Utility Reimbursement	2,857,187




Connecting people. Connecting communities.

CS Memorandum No. 0338

**Date:** February 18, 2010

**To:** Mirthala Santizo  
Board of Supervisors Budget Analyst Office

**From:** John Funghi   
Program Manager

**Subject:** Request for Approval of Contract CS-155-2

This memo provides additional clarification on the agencies desire to incorporate "Design to Budget" provisions within the subject agreement terms and conditions.

Designing the Central Subway Project's three underground subway stations poses complex design coordination challenges to the City. Given the substantial capital investment in the Central Subway, the City is about to engage with a qualified consultant with specific experience and expertise in the design of underground stations for Valley Metro in Phoenix, Gold Line extension in Los Angeles, Sound Transit Central Link in Seattle and Number 7 Line Subway Extension in New York City.

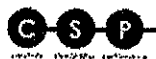
To ensure the successful delivery of the Central Subway within budget, the SFMTA has incorporated contract provisions that require that the selected Consultant design a comprehensive and complete Design Package that does not exceed more than five percent of the construction budget of each respective bid package. Construction cost estimates will be prepared for review upon completion of the 65 percent, 90 percent and 100 percent completion for each design package. In the event that cost estimates at the 100 percent design completion indicate that the construction cost will exceed 105 percent of any construction budget, the Consultant shall revise the design at no additional cost until the construction estimates are within budget. This contract provision provides for sound design management and ensures that the design prepared by the consultant at the interim design delivery points will comply with both the quality and budget limits of the program. The cost estimate unit prices shall be developed by the Program Management/Construction Management Consultant and the SFMTA at each interim design level to inform the SFMTA of the projected cost estimates.

According to the City Attorney, similar "Design to Budget" contract provisions have been previously utilized in the following City of San Francisco sponsored projects; General Hospital and Cruise Terminal project.

The Budget Analyst correctly recognizes that there is no guarantee that the engineering estimates triggered by the "Design to Budget" provision will automatically prevent construction bids from coming in over budget. The SFMTA shares this recognition but believes that the "Design to Budget" provision imposes fiscal obligations on the Consultant



Municipal Transportation Agency



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for non-performance that will make it more likely that the construction bids will be at or below 105 percent of the construction budget.

Additionally, this contract provision also extends to the Post Bid and Award phase of the program. If the City receives a low bid price that exceeds one hundred five percent of any construction budget, the Consultant shall revise the design and assist the City with negotiating or re-bidding of the Project at an additional cost without a fixed fee (without profit), until the construction cost does not exceed 105 percent of the construction budget.

The Consultant has absorbed the additional risk to satisfy the above "Design to Budget" contract provisions within the fixed fee contract amount (which includes the contractor's profit). The Budget Analyst has asked if the contractor is charging a "premium" for the "Design to Budget" provision. The provision was clearly part of the contract negotiation so by definition the SFMTA is paying for its inclusion. However, the total fixed fee amount of \$3,783,539 (9.47 percent) for this contract is comparable to other design contracts of this size and complexity (fixed fees are usually in the 10 percent range) and the SFMTA believes this provision to be an important component of the contract.

cc: File No. M544.1.5.0750

SAN FRANCISCO  
MUNICIPAL TRANSPORTATION AGENCY  
BOARD OF DIRECTORS

RESOLUTION No. 09-202

WHEREAS, Design and construction of the 1.75-mile Central Subway ("Central Subway Project") is Phase 2 of the Third Street Light Rail Transit Project; and,

WHEREAS, The San Francisco Municipal Transportation Agency (SFMTA) Board of Directors adopted Resolution No 02-144 on June 7, 2005, which selected the Fourth Street alignment as the Locally Preferred Alternative for the Central Subway Project, which alternative will be carried through the Supplemental Environmental Impact Statement/Environmental Impact Report ("SEIS/SEIR") and the federal New Starts Process; and,

WHEREAS, The SFMTA Board of Directors adopted Resolution No. 08-029 on February 19, 2008, selecting the Central Subway Project Alternative 3B, Fourth/Stockton Alignment with semi-exclusive surface rail operations on Fourth Street, as the Locally Preferred Alternative; and,

WHEREAS, The San Francisco Planning Commission adopted Motion No. M-17668 on August 7, 2008, certifying completion of the Central Subway Final Supplemental Environmental Impact Report; and,

WHEREAS, The SFMTA Board of Directors, adopted Resolution No. 08-150 on August 19, 2008 adopting Central Subway Project Alternative 3B, Fourth/Stockton Alignment with semi-exclusive surface rail operations on Fourth Street and a construction variant to extend the tunnel another 2,000 feet north of Jackson Street, the CEQA Findings and Statement of Overriding Considerations for the SEIS/SEIR and the Mitigation Monitoring and Reporting Plan; and,

WHEREAS, The SFMTA Board of Directors adopted Resolution No. 09-055 on April 7, 2009, authorizing the Executive Director/CEO to issue a Request for Proposals (RFP) for Contract No. CS-155 for Professional Architectural and Engineering Services for the Final Design and Construction of the Central Subway Project, evaluate proposals, select the highest-ranking proposal, and negotiate a contract for Contract No. CS-155, Professional Architectural and Engineering Services for the Final Design and Construction Phases of Central Subway.

WHEREAS, The anticipated complexity of the Central Subway Project, in proximity to sensitive urban structures and facilities, poses significant design, coordination, and construction challenges to the City; and,

WHEREAS, The City does not have the specialized expertise or staff resources to design and manage a project of this size and intricacy; and,

WHEREAS, The SFMTA conducted a competitive selection process, and Central Subway Design Group was selected as the most qualified proposer; and,

WHEREAS, Staff and Central Subway Partners have engaged in a detailed contract negotiation to determine the costs and resources necessary to provide the Central Subway Project comprehensive engineering, construction support and related services for station design; and,

WHEREAS, Execution of the contract is contingent upon approval of the Civil Service Commission and the Board of Supervisors; and,

WHEREAS, The Contract will assist SFMTA in meeting the objectives of Goal No. 1 of the Strategic Plan -- to provide safe, accessible, clean, environmentally sustainable service and encourage the use of auto-alternative modes through the Transit First policy; Goal No. 2 -- to improve transit reliability; Goal No. 3 --to improve economic vitality through improved regional transportation; and Goal No. 4 -- to ensure the efficient and effective use of resources; now, therefore, be it

RESOLVED, That the SFMTA Board of Directors authorizes the Executive Director/CEO to execute Contract CS-155-2, Architectural and Engineering services for the Final Design and Construction of the Central Subway Project -- Station Design, with Central Subway Design Group, a joint venture between Parsons Brinkerhoff, Inc. and Michael Willis Architecture, Inc. and Kwan Hemni Architecture, Inc., for an amount not to exceed \$39,949,959 for all base and optional contract work to complete the final design of the Central Subway Stations, and for a term not to exceed ten years, with an option to extend the term for an additional two years; all options to be exercised by the Agency by the approval of the Executive Director/CEO; and be it

FURTHER RESOLVED, That the SFMTA Board of Directors recommends Contract CS-155-2 to the Board of Supervisors for its approval.

I certify that the foregoing resolution was adopted by the San Francisco Municipal Transportation Agency Board of Directors at its meeting of DEC 01 2009.

R. Boomer  
Secretary to the Board of Directors  
San Francisco Municipal Transportation Agency

# CONTRACT FOR CENTRAL SUBWAY

## FINAL DESIGN PACKAGE # 2

### MOSCONE, UNION SQUARE & CHINATOWN STATIONS

11-12-09





**APPENDIX A**  
**SIGNED SCOPE OF SERVICES/SCOPE OF WORK**

**Central Subway Project - Design Package #2**  
**Contract No. CS-155-2**

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**APPENDIX B**  
**DIRECTORY OF SUBCONSULTANTS**

**Central Subway Project - Design Package #2**  
**Contract No. CS-155-2**

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**APPENDIX G**  
**SMALL BUSINESS ENTERPRISE (SBE) PROGRAM**

**Central Subway Project - Design Package #2**  
**Contract No. CS-155-2**





**APPENDIX H**  
**OVERHEAD RATES FOR FIELD AND HOME OFFICE PERSONNEL**

**Central Subway Project - Design Package #2**  
**Contract No. CS-155-2**

**APPENDIX M**  
**DESIGN SCHEDULE**

**Central Subway Project - Design Package #2**  
**Contract No. CS-155-2**

**APPENDIX N**  
**CONSTRUCTION CONTRACT PACKAGE DEFINITIONS**

**Central Subway Project - Design Package #2**

**Contract No. CS-155-2**

