

SAN FRANCISCO
MUNICIPAL TRANSPORTATION AGENCY

DIVISION: Central Subway Project

BRIEF DESCRIPTION:

Authorizing the award of Contract No. 1300, Third Street Light Rail Program, Phase 2 Central Subway – Stations, Surface, Track and Systems, with Tutor Perini Corporation, located at 15901 Olden Street, Sylmar, CA 91342, as the lowest responsive and responsible bidder, in the amount of \$839,676,400 for base contract work, for a term not to exceed 1700 calendar days, contingent upon no bidder submitting a timely protest challenging said award; further authorizing the Director of Transportation to exercise the options provided in the Contract for an amount not to exceed \$490,000; and, further authorizing the Director of Transportation to approve up to an aggregate of \$20 million in contract amendments for Contract No. 1300 before requiring SFMTA Board of Directors approval, in addition to the authority to exercise the contract options.

SUMMARY:

- On October 18, 2012, in accordance with the San Francisco Municipal Transportation Agency (SFMTA) Board of Director's Resolution No. 09-191 delegation of authority over contracting, a memorandum notification was submitted to the Board indicating that the Director of Transportation had authorized a bid call for SFMTA Contract No. 1300, Third Street Light Rail Program, Phase 2 Central Subway – Stations, Surface, Track and Systems.
- This Contract includes construction of (a) three underground stations (Chinatown, Union Square/Market Street, Yerba Buena/Moscone) and a high-level platform station at Fourth and Brannan Streets, and (b) 1.5 miles of light rail tracks and systems on the surface and through the subway.
- The Engineer's Estimate for this work ranged between \$720 Million to \$750 Million.
- Three bids were received and publicly opened on April 18, 2013. Staff recommends awarding Contract No. 1300 to Tutor Perini Corporation (Tutor) in the amount of \$839,676,400 and a term not to exceed 1700 calendar days, as the lowest responsive responsible bidder.
- Funding for construction services under this Contract is furnished from federal, state and local sources.

ENCLOSURES:

1. SFMTAB Resolution
2. Project Budget & Financial Plan

APPROVALS:

DATE:

DIRECTOR _____

May 17, 2013

SECRETARY _____

May 17, 2013

ASSIGNED SFMTAB CALENDAR DATE: May 21, 2013

PURPOSE

To award Contract No. 1300, Third Street Light Rail Program, Phase 2 Central Subway – Stations, Surface, Track and Systems (Contract No. 1300) to construct three underground stations, a surface high-level platform, tracks, and systems, contingent upon no bidder submitting a protest of said award. To authorize the Director of Transportation to exercise options provided in the Contract, and to authorize the Director to approve up to an aggregate of \$20 million in change orders for Contract No. 1300 before requiring SFMTA Board of Directors' approval.

GOAL

The Third Street Light Rail Program, Phase 2 Central Subway is a critical transportation improvement that links neighborhoods in the southeastern part of San Francisco with retail and employment centers in downtown and Chinatown, is consistent with the SFMTA Strategic Plan, and meets the following goals and objectives:

Strategic Plan Goal 3 – Improve the environment and quality of life in San Francisco
Objective 3.3 Allocate capital resources effectively

DESCRIPTION

Background:

The SFMTA's Third Street Light Rail Transit Project is the most significant capital investment in generations for the seventh largest transit system in the nation. Phase 1 of the 6.9-mile, two-phase project 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.

The Central Subway Project, Phase 2 of the Third Street Light Rail Transit Project, will provide rail service to the Financial District and Chinatown, the most densely developed area of San Francisco. The new light rail line will serve regional destinations, such as Union Square, Moscone Convention Center, Yerba Buena and AT&T Park, as well as connect directly to BART and Caltrain, the Bay Area's two largest regional commuter rail services.

During Preliminary Engineering the Central Subway Program developed and adopted a construction delivery methodology which recommended seven construction contracts for delivery of the Program.

- 1250 – Utility relocation package 1
- 1251 – Utility relocation package 2
- 1252 – TBM procurement and Tunnel construction
- 1253 – Union Square/Market Street Station
- 1254R – Chinatown Station
- 1255 – Yerba Buena/Moscone Station
- 1256 – Surface Track and Systems

This procurement approach was utilized to award the first three construction contracts - the two Utility Relocation contracts (1250 and 1251) and the Tunnel contract (1252). In August 2012 the construction delivery methodology was re-examined after bids received for the Chinatown Station were significantly higher than expected, and comments from bidders for the Chinatown and from prospective bidders for the Union Square/Market Street Stations indicated that splitting the Project into multiple contracts created significant risk and added transactional costs for contractors that were reflected in their bids. On August 21, 2012, SFMTA rejected all bids for Chinatown Station, and on October 15, 2012, SFMTA canceled the Union Square/Market Street Station contract to evaluate Central Subway Program costs and schedule.

Central Subway staff concluded that contractor and Agency risks and bid costs would likely be reduced by combining the four remaining construction packages (Chinatown Station, Union Square/Market Street Station, Yerba Buena/Moscone Station, and the Surface Track and Systems) into one contract. Staff determined that consolidating the construction work would reduce overall schedule and construction costs associated with work coordination, integration, and constraints between the individual construction packages, and the overall costs and risk to the SFMTA would be reduced as a consequence. The Program also engaged the services of specialist outreach and bonding assistance firms to further encourage and assist SBE participation in the revised Contract No. 1300.

Current Program Status:

The Central Subway will consist of a short portion of in-street, surface light rail in the southern portion of the system before it transitions into subway operation for the remainder of the 1.5 mile alignment. Twin bore tunnels are proposed for the subway, with three subway stations serving the Yerba Buena/Moscone, Union Square/Market Street and Chinatown areas. The Union Square/Market Street Station will interconnect with the existing BART/Muni Powell Street Station. The Yerba Buena/Moscone and Union Square/Market Street Stations will be constructed using traditional, top-down cut-and-cover construction. The Chinatown Station, located within a very constricted area, will be constructed using mined sequential excavation.

The first Central Subway Program construction contracts, 1250 and 1251, for utility relocation, have been finally completed and substantially completed, respectively. Preliminary work under the tunnel contract (1252) has begun, and tunneling is scheduled to begin in June 2013. The award of Contract 1300 will complete the implementation of the Central Subway Project. Central Subway construction began in 2010 and is scheduled to be completed in 2018.

Purpose and Scope of Contract:

The scope of work of SFMTA Contract No. 1300, Third Street Light Rail Program, Phase 2 Central Subway – Stations, Surface, Track and Systems includes:

1. Construction of a light rail station at 4th and Brannan Streets.
2. Construction of surface tracks, track beds, switches and wayside systems connecting the existing T Line to the twin bore tunnel portal located at 4th and Harrison Streets and within the tunnels.

3. Excavation, construction, finishing and furnishing three underground stations, located at Yerba Buena/Moscone, Union Square/Market Street, and in Chinatown (The Yerba Buena/Moscone and Union Square/Market Street Stations are to be constructed using cut and cover excavation; the Chinatown Station is to be constructed using sequential excavation methods).
4. Station work includes head houses and other station entrances, public artwork, as well as a concourse running from the existing BART/SFMTA Muni Powell Street Station to the new Union Square/Market Street Station.
5. Alteration to a portion of the Union Square Plaza and Garage to accommodate the head house for the Union Square/Market Street Station at the corner of Geary and Stockton Streets.
6. Surface work including: temporary traffic routing; utility demolition; new sewer, water distribution, and Auxiliary Water Supply System construction; Road and pavement demolition and restoration; temporary removal of Muni trolley coach Overhead Contact System (OCS);
7. Demobilization and site restoration activities.

Bids Received:

On April 18, 2013 the SFMTA received three bid proposals for Contract No. 1300. The Engineer's Estimate for the work ranged between \$720 Million and \$750 Million, based on the project budget established in 2009.

An analysis of the bids revealed minor mathematical errors by the apparent low bidder Tutor Perini Corporation (Tutor). The mathematical error was in the extension of unit price items and the bid was corrected during bid evaluation resulting in an increase of \$99,400 to the total bid price from \$840,067,000 to \$840,166,400, or roughly 12 percent above the engineers estimate within the overall Program budget established in 2009.

The three bid proposals received were as follows:

Bidder	Total Bid Price (including additive options)	Early Completion Credit	Daily Rate for Delay	Evaluated Bid Price
Tutor Perini Corporation	\$840,166,400	0	\$40,000	\$852,166,400
Amoroso/FCC /Southland JV	\$867,777,000	0	\$40,000	\$879,777,000
Skanska-Shimmick /Stacey and Witbeck, JV	\$945,881,700	0	\$33,333	\$955,881,600

Bidders are required by the California Subletting and Subcontracting Fair Practices Act (Public Contract Code section 4104) to list all subcontractors that will perform more than one-half of one percent of the value of the contract work. Tutor listed the following subcontractors:

Subcontractor	Status	Value
Quality Engineering	SBE	\$7,600,000
Frontier-Kemper		\$64,282,000
Becho, Inc		\$36,000,000
Ladazavo Brothers	SBE	\$7,677,000
Superior Gunitite		\$9,700,000
Desert Mechanical		\$33,600,000
Martinez Steel	SBE	\$21,690,000
Fisk Electric		\$10,341,000
Roadway Engineering Works	SBE	\$36,715,000
Abbett Electric	SBE	\$29,746,000
Layne Christensen		\$56,200,000
Valverde Construction	SBE	\$23,800,000
Conquest Construction	SBE	\$17,321,000
John Jackson Masonry	SBE	\$8,000,000
T&M		\$7,705,000
Waterproofing Experts	SBE	\$6,100,000
Sashco Inc.	SBE	\$17,041,000
Ironwood	SBE	\$7,884,000
Best		\$6,000,000
Top End Constructors	SBE	\$3,042,000
Schindler		\$22,155.00
Cosco Fire Protection		\$11,319,000
Wang Technologies	SBE	\$11,500,000
Viking Drillers	SBE	\$1,247,000
Meridan Precast	SBE	\$4,224,000

Section 6.20(b) of the San Francisco Administrative Code requires that a construction contract be awarded to “the responsible bidder submitting the lowest responsive bid,” which for Contract No. 1300 was calculated as an Evaluated Bid Price as the sum of the following:

- a) Total Bid Price (including additive options) stated in a Proposal
- b) Minus the (monetized) difference between the maximum number of Days to complete the Work compared with the Bid Days proposed by the Bidder to substantially complete the Work.
- c) Plus the product of the Established Daily Rate for Delay times 300 days.

The additive options are for (1) design and (2) construction of an elevator extension to the BART level of the Powell Street Station. The Agency may exercise either or both of these options within 30 and 450 calendar days, respectively, from Notice to Proceed. The options will be exercised if and when funded by BART.

Contract No. 1300 also contains optional deductive bid items which, if exercised, will enable the Agency to reduce the scope of work to keep the value of Contract No. 1300 within the Central Subway Program Budget or meet other Agency requirements. The optional deductive bid items are:

- 1) Elimination of Ellis Annex at Union Square/Market Street Station;
- 2) Modifications to the South concourse at Union Square/Market Street Station;
- 3) Modifications to the North concourse at Union Square/Market Street Station;
- 4) Modifications to the concourse level at Yerba Buena/Moscone Station; and
- 5) Elimination of track crossover No. 4 located near the corner of Fourth and Townsend Streets.

The Base Bid Price includes the work described in the five deductive bid items listed above. If required, the Central Subway Program will exercise these deductive bid options via change order (contract amendments) to remove the work from Contract No. 1300.

The Base Bid Price for base contract work provided by Tutor was \$839,676,400. Tutor Perini's bid for additive Optional Bid Item 1 was \$90,000 and for additive Optional Bid Item 2 was \$400,000. The Total Bid Price of \$840,166,400, including additive options, by Tutor Perini is within 12% of the high end of the engineer's estimate range for Total Bid Price.

Staff analysis indicates three factors significantly contributed to the final bid price exceeding the Engineer's Estimate:

1. **Market Conditions** – Currently there is great demand for qualified contractors for major infrastructure projects in California. That demand reduced the bid-pool for this Contract from seven contractors to the three who submitted bids.
2. **Contract Schedule** – The schedule for completion of the Project is aggressive. It is believed that contractors have included risk of delay in their bid prices to mitigate liquidated damages for late completion. That conclusion is supported by the fact that no bidders responded with bids that included reduced construction schedules.
3. **Site Conditions** – The tunnel contractor is currently completing ground support construction activities in the Union Square area. It is expected that bidders have assessed the congested site conditions and required construction tolerances as challenging, and have priced the significant amount of similar work in Contract 1300 to reflect that analysis.

No Bid Protests Have Been Submitted:

As of the time the agenda for May 21, 2013 meeting of the SFMTA Board of Directors was prepared, no bidder had submitted a protest to the SFMTA challenging the award of Contract No. 1300. The bid protest period will expire at 5:00 PM on May 21, 2013. The award of Contract No. 1300 is contingent upon no bidder submitting a timely protest of the award the contract to Tutor. If the SFMTA receives a protest prior the expiration of the protest period, the award of Contract No. 1300 will be deemed void, and the SFMTA will investigate and respond to the protest in accordance with the Agency's established Protest Procedures for Bidding and Award of Federally Assisted Third Party Contracts, as provided in the bid documents.

Small Business Enterprise and Workforce Development Opportunities:

The Contract Compliance Office established a 20 percent small business enterprise (SBE) participation goal for the Central Subway Project, and a 20 percent goal for Contract No. 1300. Additionally, Contract No. 1300 includes a 50 percent set-aside program for SBE off-haul truckers. The SBE set-aside participation under this program is separate from and in addition to, the 20 percent SBE participation goal. The bid proposed for award included SBE participation of 24.9 percent.

Contract 1300 also includes various Workforce Development opportunities, including;

- Socially and economically disadvantaged employment - \$1.5m set aside
- Construction management trainee program positions - 40,000 hours required
- City Build Program new hire goal - 50% new hire goal for each trade

Director of Transportation's Authority to Approve Contract Modifications.

The Director of Transportation's current authority to approve contract amendments (change orders) for a contract of greater than \$50 million is limited to a total value of \$5 million; contract modifications with a total cumulative value over \$5 million require approval of the SFMTA Board of Directors.

The proposed resolution authorizes the Director of Transportation to approve contract amendments for Contract No. 1300 up to a cumulative total of \$20 million, but with the restriction that the Director's cumulative authority to approve contract amendments to any single construction package (1253, 1254R, 1255, 1256) within Contract No. 1300 would be limited to \$5 million. Change orders for any one of those packages that exceeds a cumulative value of \$5 million would require SFMTA Board of Directors' approval, in the same manner as if the four packages had been let as separate contracts. This \$20 million authority would be in addition to the authority granted to the Director of Transportation to approve the contract modifications necessary to exercise either or both of the additive options to Contract 1300.

The requested increase in the Director of Transportation's approval authority will facilitate construction by enhancing the SFMTA's ability to execute change orders in a timely manner.

ALTERNATIVES CONSIDERED

Numerous alternative routes and construction methodologies were considered during Preliminary and Final Design of the Central Subway Project. The selected route of the Central Subway right-of-way and the construction methodologies specified in the Project's design will deliver the highest value to the City and public transit riders. As discussed above, alternate contracting approaches were considered and attempted; staff believes that the consolidation of the work under Contract 1300 is the most efficient and economical approach.

FUNDING IMPACT

The \$1.58 billion FTA New Starts Project funding for the Central Subway Project includes this contract amount, and is funded by a combination of federal, state and local monies. The Project Budget & Financial Plan is set forth in Enclosure 2. Although Tutor's bid is between \$90 and \$120 million over the Engineer's Estimate, the Central Subway Program, if required can utilize contingency funds, deductive bid options, and cost savings from design and professional services contracts to stay within the \$1.578 billion Program budget. The cost of this contract award is within the Central Subway Program budget and available funding. Implementation of the option(s) to extend the elevator to BART platform level would be fully funded by BART. The San Francisco Public Utilities Commission will partially fund the construction of a new sewer and force main along 4th Street south of Bryant Street.

OTHER APPROVALS RECEIVED OR STILL REQUIRED

No other approvals are required to award this contract.

The Contract Compliance Office (CCO) has reviewed the bid proposals received for Contract No. 1300 and confirmed that Tutor Perini will meet the Small Business Enterprise (SBE) participation goal of 20 percent established for this contract.

The City Attorney's Office has reviewed this calendar item.

RECOMMENDATION

Staff recommends that the SFMTA Board of Directors award San Francisco Municipal Transportation Agency Contract No. 1300, Third Street Light Rail Program, Phase 2 Central Subway – Stations, Surface, Track and Systems, to Tutor Perini Corporation, as the lowest responsive and responsible bidder in the amount of \$839,676,400 for the base contract work and \$490,000 for optional contract work, for a total amount not to exceed \$840,166,400 and a term not to exceed 1700 calendar days. The award of the contract is contingent upon no bidder submitting a protest challenging the award prior to the expiration of the bid protest period.

Staff further recommends that the Board of Directors authorize the Director of Transportation to exercise at his or her discretion any of the contract options stated in Contract No. 1300. The options to extend elevator service to BART platform at the Powell Street Station are contingent on BART's fully funding that work.

Staff further recommend that the Board of Directors authorize the Director of Transportation to approve up to an aggregate of \$20 million in change orders above the original contract amount

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(not to exceed \$5 million for each of the four packages included in Contract No. 1300) before requiring approval of the Board of Directors, in the same manner as if the four packages had been let as separate contracts. This \$20 million authority is in addition to the authority granted to the Director to approve contract modification(s) to exercise the Contract's additive options.

SAN FRANCISCO
MUNICIPAL TRANSPORTATION AGENCY
BOARD OF DIRECTORS

RESOLUTION No. _____

WHEREAS, Design and construction of the 1.5-mile Central Subway ("Central Subway Program") is Phase 2 of the Third Street Light Rail Transit Project; and,

WHEREAS, During Preliminary Engineering the Central Subway Program developed and adopted a construction delivery methodology that divided the work into seven construction contracts:

- 1250 – Utility relocation package 1
- 1251 – Utility relocation package 2
- 1252 – TBM procurement and Tunnel construction
- 1253 – Union Square/Market Street Station
- 1254R – Chinatown Station
- 1255 – Yerba Buena/Moscone Station
- 1256 – Surface Track and Systems; and,

WHEREAS, That procurement approach was utilized to award the first three construction contracts; the two Utility Relocation contracts (Nos. 1250 and 1251) and the Tunnel contract (No. 1252); and,

WHEREAS, Under the current authority granted to the Director of Transportation under SFMTA Board Resolution No. 10-008, adopted by the SFMTA Board of Directors on January 5, 2010, where an original contract value is equal to or greater than \$50 million, all changes that increase the contract value require SFMTA Board of Directors' approval when the cumulative value of contract amendments value exceeds \$5 million; and,

WHEREAS, In August 2012, SFMTA staff re-examined the construction delivery methodology for the Project after the receipt of contract bids for the construction Chinatown Station and the numerous questions from prospective bidders for the construction contract for the Union Square/Market Street Station indicated that the division of the Project into multiple contracts would likely result in significantly higher construction costs and risks to the City; and,

WHEREAS, On August 21, 2012, the SFMTA rejected all bids for Chinatown Station and planned to re-advertise that contract; and,

WHEREAS, For the Union Square/Market Street Station contract, over 200 questions and comments from the bidders were received, and despite clarification provided in nine addenda, the Central Subway Program anticipated that bids would be significantly higher than the Engineer's Estimate of \$210 million; and,

WHEREAS, On October 15, 2012, the SFMTA canceled the Union Square/Market Street Station contract to evaluate Project cost and schedule; and,

WHEREAS, The Central Subway Program determined that it would be beneficial for the SFMTA to combine the four remaining construction packages, including Chinatown Station, Union Square/Market Street Station, Yerba Buena/Moscone Station, and the Surface Track and Systems into one contract to greatly reduce costs associated with coordination and integration of the work and site constraints between the individual construction packages, thereby reducing the overall schedule and construction cost risk to the City; and,

WHEREAS, On October 18, 2012, in accordance with the San Francisco Municipal Transportation Agency Board of Director's Resolution No. 09-191, delegation of authority over contracting, a memorandum notification was submitted to the Board indicating that the Director of Transportation had authorized a bid call for SFMTA Contract No. 1300, Third Street Light Rail Program, Phase 2 Central Subway – Stations, Surface, Track and Systems (Contract No. 1300); and,

WHEREAS, On April 18, 2013 three bids were received for Contract No. 1300 and publicly opened; and,

WHEREAS, The Engineer's Estimate for Contract No. 1300 ranged between \$720 Million to \$750 Million; and,

WHEREAS, The lowest Total Bid Price of \$840,166,400, including additive options, was submitted by Tutor Perini Corporation, and that bid price is within 12 percent of the high end of the range of the Engineer's Estimate; and,

WHEREAS, Staff analysis indicates that three factors substantially caused bid prices to exceed the Engineer's Estimate, which factors included: Market Conditions, Contract Schedule, and Site Conditions; and

WHEREAS, The Contract Compliance Office reviewed the bid proposals and confirmed that Tutor Perini Corporation's bid appears to meet the Small Business Enterprise (SBE) participation goal of 20 percent established for Contract No. 1300; and,

WHEREAS, The funding for work under Contract No. 1300 is to be furnished from federal, state and local sources; and,

WHEREAS, Had the remaining four contracts (1253, 1254R, 1255, and 1256) been bid and awarded separately, the Director of Transportation's authority would have applied to each of the four separate contracts, so that any contract amendment exceeding a cumulative value of \$5 million limit for any one of the contracts would have required SFMTA Board of Directors' approval, but the Director of Transportation's cumulative authority for all four contracts would have been \$20 million; and,

WHEREAS, Under the Director of Transportation's current authority under SFMTA Board Resolution No. 10-008 , all contract modifications that increase the contract amount require SFMTA Board approval when the cumulative value of contract modifications exceed \$5 million; and,

WHEREAS, No bid protests have been submitted challenging the award of Contract No. 1300, and the bid protest period will expire on May 21, 2013 at 5:00 PM; and

WHEREAS, based on the information provided in its bid, as reviewed by SFMTA staff, Tutor Perini Corporation is the apparent responsible bidder that submitted the lowest responsive bid for Contract 1300; now, therefore, be it

RESOLVED, That the SFMTA Board of Directors awards Contract No. 1300, Third Street Light Rail Program, Phase 2 Central Subway – Stations, Surface, Track and System (Contract 1300) to Tutor Perini Corporation as the apparent responsible bidder that submitted the lowest responsive bid, in an amount not to exceed \$839,676,400 for the base contract, with a term not to exceed 1700 calendar days; and be it

FURTHER RESOLVED, That said award of Contract No. 1300 to Tutor Perini Corporation is contingent upon the SFMTA not receiving a protest to said award within the bid protest period, which expires at 5:00 PM on May 21, 2013, and should a protest be received by the SFMTA within said bid protest period, the award of the Contract shall be null and void, and the SFMTA shall investigate and respond to the protest in accordance with the SFMTA's established Protest Procedures for the Bidding and Award of Federally Assisted Third Party Contracts; and be it

FURTHER RESOLVED, That if and only if no protest to the award of Contract 1300 is submitted to the SFMTA within the bid protest period, the San Francisco Municipal Transportation's Agency Board of Directors authorizes the Director of Transportation to execute Contract 1300 with Tutor Perini Corporation; and be it

FURTHER RESOLVED, That assuming the award approved by this resolution is not deemed null and void by the submission of a protest, the San Francisco Municipal Transportation Agency Board of Directors further authorizes the Director of Transportation to exercise in his or her discretion any of the options described in the Contract Documents and to approve contract modifications to Contract No. 1300 with a cumulative value not to exceed \$20 million above the original contract amount of Contract No. 1300, with the limitation that contract amendments with a cumulative value of more than \$5 million in any one of the four constituent construction packages (that were originally to be let as Contracts Nos. 1253, 1254R, 1255, 1256) shall require SFMTA Board of Directors' approval, and said \$20 million authority is in addition to the Director of Transportation's authority to approve contract amendments required to exercise options described in the Contract Documents.

I certify that the foregoing resolution was adopted by the San Francisco Municipal Transportation Agency Board of Directors at its meeting of May 21, 2013.

Secretary to the Board of Directors
San Francisco Municipal Transportation Agency

ENCLOSURE 2
THIRD STREET LIGHT RAIL PROJECT
CENTRAL SUBWAY

San Francisco Municipal Railway Contract No. 1300

Project Budget and Financial Plan

Cost	(\$Millions)
Conceptual and Preliminary Engineering	46.22
Program Management & Construction Management	177.00
Final Design	75.72
Construction Contracts	1114.26
Vehicles	24.11
Contingency	67.40
Right-of-Way	36.38
Other Professional Services	37.21
Total Central Subway Cost	\$1,578.30

Funding	(\$Millions)
Federal 5309 New Starts	942.20
Federal CMAQ	41.03
State RTIP Grant	88.00
State TCRP Grant	14.00
State Proposition 1A - High Speed Rail	61.31
State Proposition 1B - PTMISEA	307.78
Proposition K Sales Tax Funds	123.98
Total Central Subway Funding	\$ 1,578.30