

MINI-MONTHLY REPORT OCTOBER 31, 2013

Central Subway Project
San Francisco Municipal Transportation Agency (SFMTA)
San Francisco, CA

Draft Report delivered to FTA November 6, 2013
Final Report delivered to FTA November 7, 2013

PMOC Contract No.: DTFT60-09-D-00015
Task Order No. 3
Project No.: DC-27-5139
Work Order Number: 006
OPs Referenced: 01, 20, and 25
CLIN 0002B

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EXECUTIVE SUMMARY CENTRAL SUBWAY

PROJECT DESCRIPTION

The Central Subway Project (CSP) will construct a modern, efficient light-rail line that will improve public transit in San Francisco. This new 1.7-mile extension of Muni's T Third Line will provide direct connections to major retail, sporting and cultural venues while efficiently transporting people to jobs, educational opportunities, and other amenities throughout the city. The CSP is Phase 2 of the San Francisco Municipal Transportation Agency's (SFMTA) Third Street Light Rail Transit Project. Phase 1 of the project constructed a 5.1-mile light-rail line along the densely populated 3rd Street corridor. It began revenue service in April 2007, restoring light-rail service to a high transit ridership area of San Francisco for the first time in 50 years. The CSP will extend the T Third Line from the 4th Street Caltrain Station to Chinatown, providing a direct, rapid transit link from the Bayshore and Mission Bay areas to SoMa, Union Square, and downtown.

Four new stations will be built along the 1.7-mile project alignment—an above-ground station at 4th and Brannan streets and three underground stations at Yerba Buena/Moscone Centers, Union Square, and Chinatown. Four light rail vehicles (LRVs) will be procured for the CSP. Ridership is projected at 43,521 Average Weekday Boardings in 2030.

PROJECT STATUS

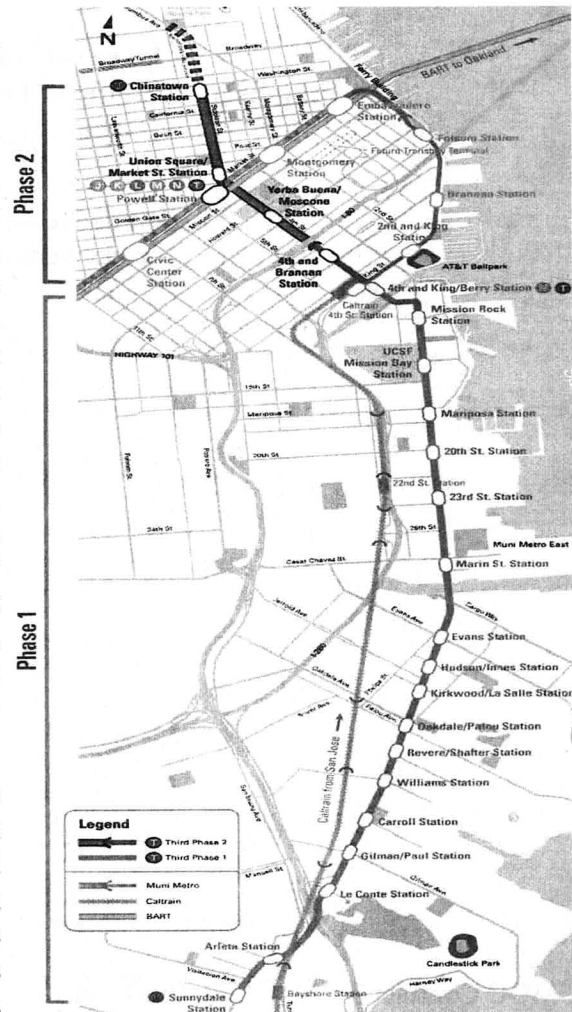
Full Funding Grant Agreement (FFGA)

The FFGA was signed on October 11, 2012.

Design and Construction

Design

- All designs are complete.



Construction

Contract 1250 [Utility Relocation (UR) #1].

- Work is complete. Closeout continues.

Contract 1251 (UR #2).

- Work is complete. Closeout continues.

Contract 1252 Tunnel.

- Work is 61 percent complete, based on Earned Value to date.

Contract 1300 Stations and Systems/Trackwork.

- Notice to Proceed (NTP) was issued on June 17, 2013. Early submittals and pre-construction activities continue. Demolition of the existing structures at both the Chinatown Station (CTS) and Yerba Buena/Moscone Station (YBM) headhouses will be complete by early November 2013.

Schedule

The Revenue Service Date (RSD) remains unchanged at December 26, 2018.

The May 2013 project schedule reflects 4.8 months of buffer float, which is below the minimum agreed to level of 8.0 months of Schedule Contingency at this phase of the project. The CSP is working to provide justification for the reduction in schedule contingency.

Cost

| | |
|---------------------------|---|
| Cost Estimate: | \$1.5783 billion |
| Total Contingency: | \$72.79 million (minimum contingency is \$140 million) |
| Total net incurred costs: | \$407.64 million (25.8 percent of the total project budget) |
| Current funding level: | \$785.41 million (50 percent of the total project budget) |

TOP ISSUES AND RECOMMENDATIONS

- The CSP is experiencing problems with the cost reporting information coming from the EcoSys Enterprise Planning and Controls (EPC) database. This is affecting the cost reporting and causing the staff to manually input data. A complete Cost Report has not been provided by the CSP since May 2013. The Project Management Oversight Contractor (PMOC) and the CSP have agreed to revise the format of the cost summary spreadsheet and provide details for the various cost changes.
- It is important that the CSP team highlight and identify changes from the previous cost report. This maintains a project cost narrative throughout the term of the project. The Federal Transit Administration (FTA) requires that project monthly cost reports be produced in the FTA standard cost category (SCC) format to allow comparisons to be made to assigned budget amounts and to show changes to these cost codes as the project develops through to completion. This could not be done with the recent changes made to the cost report and the previously stated issues with the EPC database.

- Major changes were made to the June schedule update with minor changes made to both July and August. The CSP has recently incorporated the Contract 1300 Bid Schedule into the project Master Project Schedule (MPS). This is merely a summary schedule, which was created months ago by the contractor. At this time, only the CTS and YBM activities have been submitted for the Contract 1300 Baseline Schedule. Remaining activities for construction of the Union Square/Market Street Station (UMS) and the Surface, Track, and Systems (STS) portions of the contract have not been submitted. It is nearly impossible to compare the latest schedule to the previous months' schedules.
- The current project schedule reflects 4.8 months of contingency, which is below the minimum agreed to Schedule Contingency level of 8.0 months. SFMTA submitted a "Contingency Management – Schedule 2012 Update" on May 22, 2013 and an updated report on October 11, 2013, based on the PMOC comments and new schedule modeling. The PMOC will provide a review report to FTA in mid-November 2013.
- Inspectors for Contract 1300 must still be hired. The PMOC recommends hiring the Inspectors as soon as possible. All Resident Engineers (REs) have now been hired.

Table 1 shows FTA core accountability items for the CSP.

| Table 1: Core Accountability Items | | | |
|---|---|---|--------------------------|
| Project Status: | | Original at FFGA: | Current Estimate: |
| Cost | Cost Estimate | \$1,578,300,000 | \$1,578,300,000 |
| Contingency | Unallocated Contingency | \$74,722,000 | \$10,851,366 |
| | Total Contingency (Allocated plus Unallocated) | \$185,500,000 | \$ 72,790,931 |
| Schedule | Revenue Service Date | 12/26/2018 | 12/26/2018 |
| Total Project Percent Complete | Based on Expenditures | 25.8% | |
| | Based on Earned Value | 28% | |
| Major Issues | Status | Comments/Planned Action | |
| Schedule Contingency | Project schedule contingency is currently at 4.8 months. | The minimum Schedule Contingency agreed to at this stage of the project is eight months. The CSP recently submitted justification to decrease the minimum required, but this has not been accepted. | |
| Cost Reporting | The CSP has agreed to revise the format of the cost summary spreadsheet and provide details for cost changes. The CSP is experiencing problems with the Cost Reporting information coming from the EcoSys EPC database. | The June summary cost report prepared by the CSP was found to have numerous unexplained changes. In addition, no summary cost report has been provided in three months. SFMTA must work with the EcoSys consultant to resolve this issue. | |
| Date of Next Quarterly Meeting: | | January 29, 2014 | |

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LIST OF ATTACHMENTS

- A. CSP PROJECT OVERVIEW AND MAP 10/2013
- B. CSP SAFETY AND SECURITY CHECKLIST 10/2013
- C. CSP CRITICAL PATH SCHEDULE AS OF 09/30/2013
- D. CSP THREE-MONTH LOOK-AHEAD 09/30/2013
- E. THE PMOC'S CSP POINTS OF ACTION FOR SFMTA 10/2013
- F. CSP COST AND SCHEDULE CONTINGENCY DRAWDOWNS AS OF 10/2013

CENTRAL SUBWAY**A. GRANTEE'S CAPABILITY AND APPROACH****1. Technical capacity and capability to conduct the project****Assessment Status.**

The Project provided a staffing plan on June 28, 2013, projecting staffing needs for the second half of 2013. An updated staffing plan, which was due at the end of September, has not been provided by the CSP.

Status of the following positions as of the end of October 2013:

| <u>Position</u> | <u>Status</u> |
|---|----------------------------------|
| Public Relations Manager | Selected |
| Program Delivery Manager | Requisition approved |
| Contract Admin. Manager | Hired in May |
| RE: UMS, CTS, YBM, Systems | UMS RE expected early Nov. |
| Assistant RE: UMS, CTS, YBM, Systems | All four hires in May and August |
| Office Engineer: UMS, CTS, YBM, Systems | Three hires in May |
| Inspector: UMS, CTS, YBM, Systems | Interviews late Oct. early Nov. |

The PMOC is monitoring the staffing needs and reviewing resumes of potential new hires.

PMOC Concern: The RE for UMS is expected to start in early November. None of the Inspectors for Contract 1300 have been hired. Although, limited physical work has just recently started with demolition activities, early submittals and other project related activities have begun. The PMOC recommends hiring Inspectors for Contract 1300 immediately.

2. Use of project controls for scope, quality, schedule, cost, risk, and safety

SFMTA is currently implementing a new Capital Program Control System in an effort to integrate existing systems with new software modules. The new system is comprised of Primavera P6, EcoSys EPC, Contract Management 13 (CM13), and SharePoint. The system went live on December 13, 2012.

PMOC Concern: The CSP is experiencing problems with the Cost Reporting information coming from the EcoSys EPC database. This is affecting the cost reporting and causing the staff to manually input data. A complete Cost Report has not been provided by the CSP since May 2013.

Refer to Sections D, E, and F for detailed discussion.

3. Compliance with applicable statutes, regulations, guidance, and FTA agreements

FAR 52.247-64, Preference for Privately Owned U.S.-Flag Commercial Vessels requiring the use of U.S. flag vessels for at least 50 percent of the cargo from foreign ports. The tunnel contractor has provided documentation, including the ocean carrier's freighted bills of lading, to the U.S. Maritime Administration (MARAD). Barnard Impregilo Healy JV (BIH) has some issues to resolve with MARAD regarding how the gross tonnage is

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calculated. BIH had planned to use four separate shipments to send the two Tunnel Boring Machines (TBMs). Half would go on U.S. ships and half on non-U.S. ships. Apparently, they did not get 50 percent or more of the loads onto U.S. ships. MARAD is considering some type of corrective action by BIH.

B. PROJECT SCOPE

1. Status and quality of design/construction documents, bidding, and construction status

Design.

All designs are complete.

Construction.

Contract 1250 (UR #1). This contract relocates utilities within the footprint of the proposed YBM.

- Work is complete.

Contract 1251 (UR #2). This contract relocates utility lines within the footprint of the proposed UMS and temporarily reroutes existing trolley coach lines around the future construction zone.

- Work is complete.

Contract 1252 Tunnel.

- TBM #1 launched on July 22 and reached Sta. 151+86 on October 28, 2013. TBM #2 launched on October 25, 2013.
- YBM headwalls are complete.
- UMS headwalls: The south headwall was completed in early September 2013. Expected completion of the north headwall is October 31, 2013. Street restoration of Stockton Street should be complete by the middle of November.
- The Ellis Street shaft is complete and numerous compensation grout pipes have been installed.
- The North Beach retrieval shaft sitework and soundwalls began on September 25, 2013, after demolition of the Pagoda Theater.

Contract 1300 (Combination of UMS, CTS, YBM, and STS)

- Bid opening was April 18, 2013. NTP was issued on June 17, 2013.
- Demolition of the building at the CTS location should be completed by October 31, 2013.
- Demolition of the YBM site (former 76 Gas Station) began on October 14. The underground storage tank removals are scheduled for October 31, 2013.

Fire and Life Safety/ Safety and Security Issues.

- The Construction Specification Conformance Checklists have been completed and approved for all construction packages. In September, the California Public Utilities Commission (CPUC) staff began attending monthly as-built meetings to review the completed items.
- The San Francisco Fire Department (SFFD) regularly attends the now combined Fire and Life Safety Committee (FLSC) and Safety and Security Certification Review Committee (SSCRC) meetings. The SFFD will continue to coordinate with the Tunnel and Stations projects to identify issues of importance during construction.
- An updated Safety and Security Management Plan (SSMP) has been pending completion by the SFMTA since March 2013.

2. List and status of third-party agreements including utilities, railroads, other agencies, etc.**Bay Area Rapid Transit (BART).**

All of the Tunnel contract instrumentation and monitoring equipment has been installed. BART requested additional testing and monitoring of existing tunnel lining bolts. This equipment installation is now complete.

The Central Subway tunnels are expected to cross under the BART tunnels on December 3 for TBM #1 and December 31, 2013, for TBM#2. The Independent Review Panel (IRP) will convene on November 1, 2013, to discuss the status of Central Subway tunneling operations and any issues related to the upcoming crossings. The PMOC will inform FTA of the IRP findings when available.

Caltrans.

No updates to report.

CPUC Communications.

The CPUC was invited to and is participating in the various safety meetings, including the SSCRC and FLSC meetings. Representatives of the CPUC also regularly attend the SFMTA/FTA Quarterly Progress Review Meetings (QPRMs). The last QPRM was held on October 30, 2013.

San Francisco Public Utilities Commission (SFPUC)

The CSP has been negotiating with the SFPUC on a Memorandum of Understanding (MOU) regarding additional sewer work to be undertaken south of the 4th Street portal. This additional sewer work will be covered as a Design-Build portion of Contract 1300.

San Francisco Parks and Recreation Department

The MOU for the Union Square Garage with the Parks and Recreation Department has been completed.

Private Property Owners

The Project is trying to reach agreement with the owner and homeowners association of 950 Stockton (Mandarin Tower) to monitor and install grout pipes to protect the property. Condemnation was filed on July 8, 2013, and possession is expected in April 2014.

For 1455 Stockton (Bank of America), the Project has negotiated an agreement to construct a compensation grouting shaft. The agreement was received on September 18, 2013.

For 19 Stockton, the owner has been unresponsive. Condemnation was filed in February 2013. Pre-judgment possession granted October 3, 2013. Possession is expected on November 6, 2013.

Negotiations continue for all other property agreements required for the project. These agreements will allow SFMTA to install settlement monitoring equipment at sensitive buildings adjacent to the project. There are now 370 total licenses (ten were added to address the potential Pagoda retrieval shaft) and property agreements.

PMOC Concern: Delays to the possession of these properties could impact construction activities. The PMOC will assess these potential delays based upon the latest schedule update from the project office.

3. Selection of delivery method, description of contract packages, construction sequencing, contract terms and conditions

The CSP construction is to be contracted by a traditional Design-Bid-Build methodology.

The CSP developed and adopted a construction delivery methodology during the Preliminary Engineering (PE) phase of the project, which recommended seven construction contracts for delivery of the Program.

In mid-September 2012, this strategy was changed to combine the remaining three stations and the systems contracts into one contract (Contract 1300). This contract was awarded in May 2013.

4. Vehicle status of design, procurement, approvals by state safety board, testing, etc.

SFMTA issued a Request for Proposals on September 30, 2013, for the procurement of 260 LRVs. This follows a Request for Qualifications, which was issued on March 29, 2013. Three car builders were deemed to be in the competitive range and were requested to submit proposals. Bids are due on December 10, 2013.

5. Real Estate

The CSP is in possession of all three subsurface easements required to construct the tunnels and both fee acquisitions required to construct the YBM and CTS stations.

Relocation

All project commercial and residential relocations are complete.

6. Labor Relations and Policies

The Small Business Enterprise (SBE) goal for the new Contract 1300 was established at 20 percent. The winning contractor has bid the contract with nearly 25 percent SBE participation.

C. PROJECT MANAGEMENT PLAN AND SUB-PLANS IMPLEMENTATION

1. Project Management Plan (PMP)

The PMOC received an updated PMP Revision 3 on May 20, 2013, which addressed many of the previous PMP comments. FTA accepted PMP Revision 3, dated May 1, 2013.

2. Risk and Contingency Management Plan (RCMP)

An updated RCMP Revision 3 was received by the PMOC on April 30, 2013. The PMOC provided its final Spot Report to FTA on July 19, 2013.

SFMTA submitted a CSP "Contingency Management – Schedule 2012 Update" on May 22, 2013. The PMOC provided a review of this document and cannot recommend that FTA accept any modification to schedule contingency minimum levels based on the current documentation provided. On October 11, 2013, the CSP provided an updated report with justification in the form of schedule modeling that incorporated new and current risks. The PMOC will review the updated report and provide a recommendation to FTA by mid-November.

3. SSMP

The SSMP was projected to be updated by the end of March 2013 but has not yet been completed.

4. Environmental Assessment / Mitigation Plan/Archaeological Plans

The PMOC received the Third Quarter 2013 Mitigation Monitoring Reporting Program (MMRP) update from SFMTA on September 27, 2013, and provided a Spot Report to FTA on October 28.

It is the PMOC's opinion that the grantee is sufficiently managing to ensure that the mitigation measures identified in the MMRP will be carried out during the course of the project.

Contract Specifications have been prepared to address construction operations and potential archaeological discoveries. SFMTA and the contractors are required to retain the services of a qualified archaeologist to carry out these provisions.

5. Quality Assurance/Quality Control (QA/QC) Program Plan

QA/QC Plan Implementation.

Since the beginning of this project, Project QA has logged, tracked, addressed, and closed-out each recommendation/finding made by the PMOC, identifying them as a Corrective Action item and then using the overall project Corrective Action Log.

The Quality Manager continues to conduct training for all new members of the project team as they are mobilized.

The following procedures were updated and submitted to FTA/the PMOC on September 16, 2013, and again on September 23, 2013, based on the Project QA recommendations and from the Contract Modification (CMod) Task Force findings:

- CM1101 Change Order Request (COR) and Claims Processing, Revision 1
- CM1102 Proposed Contract Change, Revision 2
- CM1103 Change Order and Contract Modification, Revision 1
- CM1105 Differing Site Condition, Revision 1
- CM1107 Force Account Work, Revision 1
- PCP 01, Configuration Management, Revision 2

6. Fleet Management Plan and Service Plan

SFMTA submitted a Rail Systems / Operations Capacity Analysis to test and assess the Phase 1 + Phase 2 CSP Service Integration Plan. The PMOC reviewed the report and provided comments to FTA on June 27, 2013. Additionally, an updated Transit Fleet Management Plan (TFMP) was expected from SFMTA at the end of September. **PMOC Concern: There are several assumptions and simplifications in the model that, if addressed, could potentially change the results of the simulation in a negative way. The magnitude of potential changes cannot be estimated without further analysis, and the PMOC cannot offer a strong opinion on the validity of the simulation results based on the information provided. SFMTA responded to the comments in the PMOC's report on September 20, 2013. The responses will be reviewed in conjunction with the TFMP.**

7. Real Estate Acquisition Management Plan (RAMP)

The last updated RAMP, Revision 1, was dated June 20, 2012. SFMTA was expected to provide Revision 2 in September 2013.

D. PROJECT SCHEDULE STATUS

| Table 2: Schedule Milestones | |
|---|----------------------------|
| PE: | Authorized in July 2002 |
| Record of Decision: | Issued November 26, 2008 |
| Final Design (FD): | Authorized in January 2010 |
| FFGA Request: | Submitted September 2011 |
| FFGA Executed: | October 11, 2012 |
| Ground Breaking: (Utility Relocation Contract) | February 9, 2010 |
| RSD: | December 26, 2018 |

Major changes were made to the June schedule update with minor changes made in the months that followed. The latest schedules have been revised and interface points have been used to link the Tunnel contractor's detailed schedule to the current MPS.

The CSP has recently incorporated the Contract 1300 "Bid Schedule" into the project MPS. This is merely a summary schedule, which was created months ago by the contractor. It contains minimal details of roughly a dozen or so activities for each of the underground stations. **PMOC Concern: At this time the Contract 1300 Baseline Schedule has only been submitted in pieces by the contractor. The CSP is in an awkward position of not knowing what activities are planned in the coming months, which does not allow the Project to properly plan their resources or inform the community or other interested parties.**

The assembly, testing, and commissioning of both TBMs have not progressed as planned. The second TBM (northbound) was expected to launch on October 4 (zero days float), but did not launch until October 25, 2013, which was 15 days behind schedule.

The demolition of the Pagoda Theater to allow for construction of the new TBM retrieval shaft was contracted out to MH Construction, a local small business. The demolition work started on July 16 and was expected to be completed by August 23, but was not finished until September 27, 2013. Due to delay of Theater demolition, the 1252 contractor did not start retrieval shaft construction on September 9, 2013, as originally scheduled.

The current schedule reflects 4.8 months of buffer float, which is the same as last month. Overall the buffer float is still down from 14.8, which was reflected in August of 2012. The minimum contingency required is eight months.

As of September 30, 2013, the RSD for the project is December 26, 2018, which was the date approved in the baseline schedule.

The critical path summary of the project is:

- CTS Submittals, Permits & Perform Environmental Soil Borings
- CTS Building Demolition
- CTS Install Guidewalls, Slurry Walls and Install Surface Deck
- CTS Excavate Headhouse & Bracing

- CTS SEM & Install Supports
- CTS Headhouse Structural Concrete/Remove Bracing
- CTS Install M/E/P
- STS Start Up & Testing
- CTS P-1254R Commissioning Complete
- BUF0017 STS Buffer Float
- STS Safety and Security Certification / Pre-Revenue Activities
- BUF0018 Muni Float
- RSD on December 26, 2018

PMOC Concern: At this point in time it is nearly impossible to compare the latest schedule to the previous months. There have been numerous revisions to the milestones, buffer float activities, and the Contract 1300 schedules that are being deleted and added to the MPS. The intent of the MPS was to reflect the summary activities for each of the construction contracts, and therefore, reflect an overall critical path for the project.

In reviewing the critical path report in the monthly progress report, most of the activities are summary activities. There are only 12 activities indicated from June 17, 2013, to December 26, 2018. Two of those are buffer float activities. The MPS schedule requires greater detail from the stations contractor to fully evaluate the validity of the interfaces between contracts and to develop the critical path of the project.

See Attachment D, which is a three-month look-ahead of all CSP activities.

E. PROJECT COST STATUS

The Project Cost Reporting monthly update for September was received by the PMOC on October 25, 2013. The PMOC and the CSP have had numerous discussions over the past couple of months regarding the cost reporting by the project.

It is important that the CSP team highlight and identify changes from the previous month's report. This maintains a project cost narrative throughout the term of the project. FTA requires that project monthly cost reports are produced in the FTA SCC format to allow comparisons to be made to assigned budget amounts and to show changes to these cost codes as the project develops through to completion. This could not be done with the recent changes made to the cost report.

PMOC Concern: The recent monthly cost reports prepared by the CSP were found to have numerous unexplained changes. SFMTA is having problems with the reporting coming out of the EcoSys EPC database, which is affecting the cost reporting for the CSP. The PMOC has notified CSP to make corrections and provide details for cost changes. Numerous discussions have taken place and the CSP has determined that they will revise the format of the Cost Reporting Summary sheet to improve overall reporting. The PMOC understands that the CSP will provide two new spreadsheets to report on costs, changes, and contingencies as required by FTA.

The Current Cost Estimate for the CSP is \$1.5783 billion in Year of Expenditure dollars and is the basis of the total project cost as presented in the 2011 New Starts Report submittal. This

capital cost projection incorporates allocated and unallocated contingencies to cover the various risks associated with completion of the project.

Total net incurred costs for the project are \$407.64 million. This figure reflects expenditures through FAMIS 786 Report (\$381.58 million) plus the utilities joint trench Form B reimbursement payment (\$8.28 million) and estimates of outstanding pay requests (\$17.78 million). This incurred amount equals 25.80 percent of the total project budget of \$1.5783 billion.

The current funding level to date is \$785.41 million, which represents 50 percent of the total project budget. The total funding includes the previously funded amount of \$643.635 million plus \$141.77 million from the FY2013 New Starts Grant approved by FTA at the end of September 2013.

Change Order Control.

The Contract 1252 RE Trend Log dated September 20, 2013, had the following activities:

- One-hundred-twenty-three (17 added this past quarter): Total identified changes including both contractor and owner-generated changes.
- Two CMods were processed in July (16 and 17) and CMod 18 was processed in August 2013.
- The average number of days from COR submission by the contractor to CMod execution is 126. There has been an improvement of 36 days since the process was first tracked in March 2013.
- The average number of days from Configuration Management Board (CMB) approval to CMod execution is more than 53.8.

PMOC Concern: The execution of CMods 20-24 were delayed pending legal approval of CMod 19. The PMOC has requested that CMods are not assigned a number until legal approval is established. The Project made a change to Procedure CM 1103 so that this situation does not occur in the future.

Funding and Expenditures.

Federal, state, and local project funding and expenditures are shown in Table 3.

Table 3: Project Funding (x1000)

| | Committed | Awarded | Expenditures Billed to date | % of Expenditure by Source |
|-----------------------------------|----------------|----------------|--------------------------------|----------------------------------|
| <u>Federal</u> | | | | |
| New Starts | 942,200 | 319,185 | 176,187 | 18.7% |
| Congestion Mitigation | 41,025 | 41,025 | 41,025 | 100% |
| <i>Federal Subtotal</i> | <i>983,225</i> | <i>360,210</i> | <i>217,212</i> | <i>22.1%</i> |
| <u>State</u> | | | | |
| Traffic Congestion Relief Program | 14,000 | 14,000 | 14,000 | 100% |
| State Transportation Improvement | 88,000 | 0 | 0 | 0.0% |
| Prop. 1B / PTMISEA | 307,792 | 225,912 | 71,167 | 23.1% |
| Prop. 1A / High Speed Rail | 61,308 | 61,308 | 8,028 | 13.1% |

| | Committed | Awarded | Expenditures Billed to date | % of Expenditure by Source |
|-----------------------|------------------|----------------|--------------------------------|----------------------------------|
| <i>State Subtotal</i> | <i>471,100</i> | <i>301,220</i> | <i>93,195</i> | <i>19.8%</i> |
| Local | | | | |
| Prop. K Sales Tax | 123,975 | 123,975 | 97,234 | 78.4% |
| <i>Local Subtotal</i> | <i>123,975</i> | <i>123,975</i> | <i>97,234</i> | <i>78.4%</i> |
| Project Total: | 1,578,300 | 785,405 | 407,641 | 25.8% |

Earned Value Analysis.

May 2013 was the first monthly report in which the CSP has provided Appendix B, Earned Value Analysis. The project baseline for the MPS is set as the current schedule, which computes the planned values based on the budget at completion multiplied by the schedule percentage complete (baseline). Once the baseline is established, following the efforts to detail soft costs and accept the baseline for Contract 1300, the planned values will be reestablished. Contract 1252 is using the original approved baseline schedule to calculate Earned Value.

As of the end of September, the following information is reported:

September Earned Value Analysis:

- Overall Budgeted Cost: \$1,578,300,000
- Planned Value: \$ 471,278,300
- Earned Value: \$ 445,889,886
- Actual Cost: \$ 407,641,360
- Schedule Performance Index (SPI): 0.95
- Cost Performance Index (CPI): 1.09
- Percent Complete: 28

F. PROJECT RISK, RISK MANAGEMENT AND RISK MITIGATION

The monthly Risk Mitigation Meeting was held on October 8, 2013. The PMOC attended the meeting.

The PMOC has requested that the Project provide updated mitigation efforts for risks B, U, 202, 205, 210, 212, 213, and 215. The mitigations for these risks have either not been developed or have not been updated in quite some time. Updated Risk Mitigation Status sheets were submitted to the PMOC on October 11, 2013.

Cost Contingency.

On June 17, 2013, Cost Contingency Hold Point 2, Commence UMS/CTS was obtained with the NTP for Contract 1300. This reduced the recommended cost schedule contingency from \$160 to \$140 million. The current Total Project Contingency is \$72.79 million, which is a \$67.21 unfavorable balance against the current FTA recommended minimum contingency level of \$140 million.

PMOC Concern: The award of Contract 1300 reduced project cost contingency by approximately \$120 million, to a level significantly below the FTA recommendation.

On April 26, 2011, SFMTA obtained a commitment from the San Francisco County Transportation Authority for \$150 million of (State) Regional Improvement Program funds to the project to be accessed in the event project costs increase above \$1.5783 billion.

See Attachment F for cost contingency drawdown graph.

Schedule Contingency.

The September 2012 project schedule reflected 5.2 months of buffer float, which was a significant change from the previous month's reported float of 14.8 months. Float has also been reduced due to delays in awarding Contract 1300. CTS and UMS had been planned for NTP in the summer and fall of 2012, respectively, but were delayed significantly to be packaged together with YBM and STS.

On June 17, 2013, Schedule Contingency Hold Point 2, Commence UMS/CTS was obtained with the NTP for Contract 1300. This reduced the FTA recommended schedule contingency from ten to eight months. The current schedule reflects 4.8 months of buffer float. **PMOC Concern: In accordance with FTA guidelines, a minimum of eight months of Schedule Contingency is recommended at this phase of the project.**

On May 22, 2013, the CSP submitted a document titled, "Contingency (Schedule) Management –Update 2012," to justify the decrease in minimum schedule contingency based on risk. The PMOC provided preliminary comments to the CSP. On October 11, 2013, the CSP provided an updated Contingency (Schedule) Management report, which suggests modifications to the schedule contingency minimum levels recommended by FTA based on schedule modeling performed by the CSP. The PMOC will provide a summary report to FTA in mid-November.

See Attachment F for schedule contingency drawdown graph.

G. ACTION ITEMS AND CONCERNS

Action Items are included in Attachment E

APPENDIX A. THREE-MONTH LOOK-AHEAD (November 2013 to January 2014)**SFMTA Management:**

- Prepare Monthly Progress Reports.
- Hire REs, Inspectors, and support staff for Contract 1300 construction.
- Update SSMP.
- Prepare quarterly staffing plan.

SFMTA Construction Activities:

- 1252 Tunnel. Both TBMs should continue to mine. The construction of the newly located North Beach retrieval shaft has begun. Completion of the UMS headwalls and street restoration is expected in November. Tunnel liner segments will continue to be shipped and production will continue.
- 1300 Stations Trackwork and Systems. Process early submittals and prepare for the beginning stages of construction. Demolition of the CTS and YBM existing buildings will complete. Potholing of existing utilities will continue.
- The San Francisco Holiday Moratorium between Thanksgiving and New Year's Day will halt most street level construction activities.

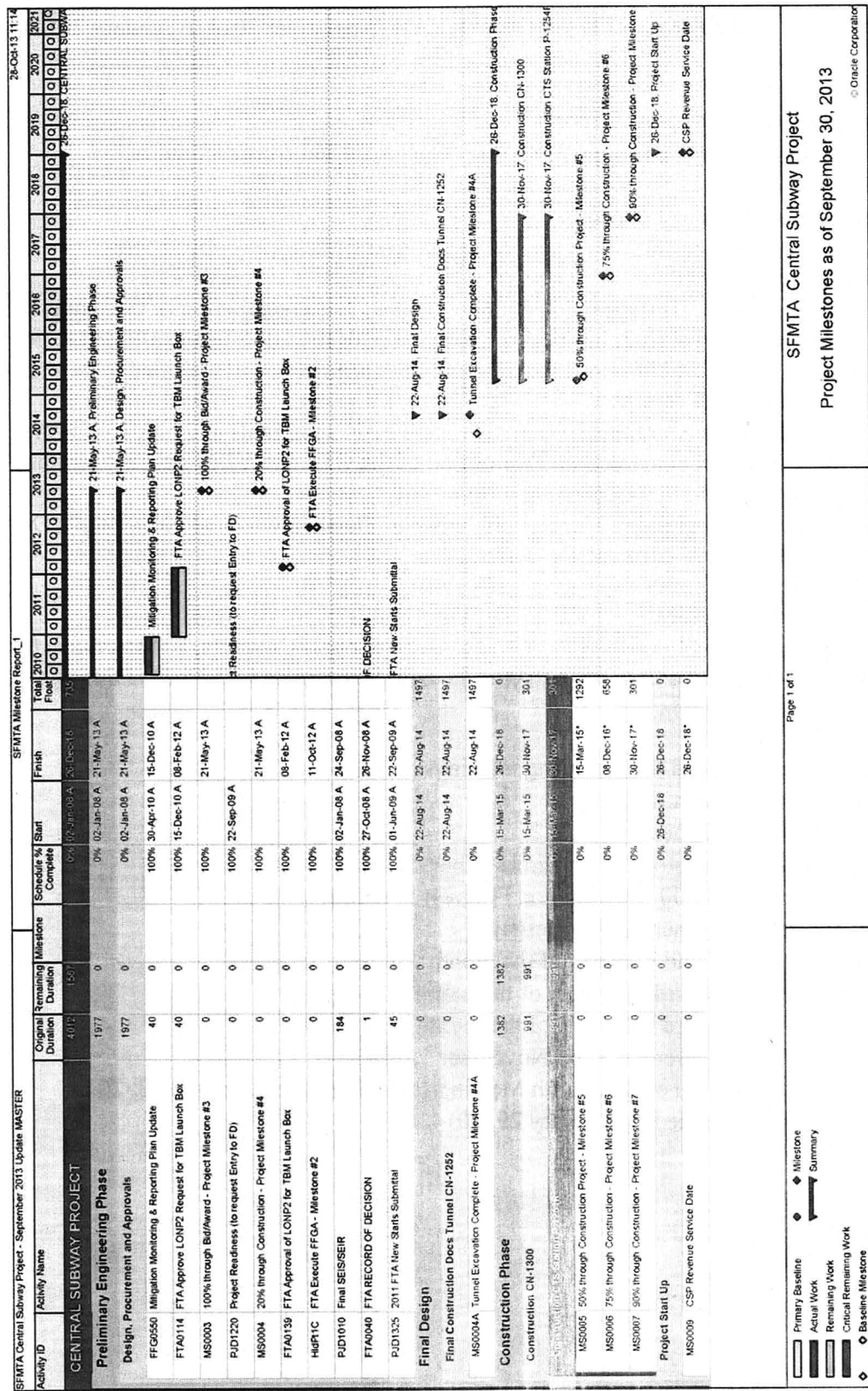
SFMTA Real Estate Activities:

- The Project will continue to work with property managers, owners, and attorneys to acquire all the needed property agreements. Some properties will proceed through condemnation.

The PMOC expects to attend the following meetings:

- Weekly Management (Monday)
- Weekly CMB (Wednesday)
- Weekly Tunnel Construction Progress (Thursday)
- Weekly Contract 1300 Construction Progress (Tuesday)
- Real Estate every other week (Tuesday)
- Monthly Risk (second Tuesday of the month)
- Monthly SSCRC (third Thursday of the month)
- Quarterly FLSC (third Thursday of the month)
- IRP for BART undercrossing on November 1, 2013.
- The next PMOC End of the Month Meeting with Grantee is December 3, 2013.
- FTA/QPRM scheduled for January 29, 2014.

APPENDIX B. CSP SCHEDULE UPDATE



| SFMTA Milestone Comparison | | | | |
|---|----------------------------|------------------------------|---------------------|---------------------|
| Baseline/Last Month/Current Month 9/30/2013 | | | | |
| Activity ID | Activity | Approved Baseline 5/31/09 | Update 8/31/2013 | Update 9/30/2013 |
| MS0001 | FTA Approval to Enter FD | 10/19/2009 | 1/07/2010A | 1/07/2010A |
| MS0002 | FTA Execute FFGA | 6/13/2011 | 10/11/2012A | 10/11/2012A |
| MS0003 | 100% Through Bid/Award | 12/28/2011 | 5/21/2013A | 5/21/2013A |
| MS0004 | 20% Through Construction | 11/29/2012 | 5/21/2013A | 5/21/2013A |
| MS0004A | Tunnel Excavation Complete | 2/19/2013 | 4/25/2014 | 8/22/2014 |
| MS0005 | 50% Through Construction | 1/8/2014 | 4/10/2015 | 3/15/2015 |
| MS0006 | 75% Through Construction | 6/20/2014 | 12/13/2016 | 12/13/2016 |
| MS0007 | 90% Through Construction | 7/20/2016 | 12/6/2017 | 12/6/2017 |
| MS0008 | Construction Complete | 1/17/2018 | 5/11/2018 | 5/11/2018 |
| MS0009 | CSP Revenue Operations | 12/26/2018 | 12/26/2018 | 12/26/2018 |
| MS0010 | CSP Complete | 4/27/2022 | 12/30/2020 | 12/30/2020 |

APPENDIX C. LESSONS LEARNED

| LL# | Date | Phase | Category | Subject | Lesson Learned |
|-----|----------|-------|------------|-------------------------------------|---|
| 1 | 09-30-10 | FD | Management | Consultant Contracts | The Project must have a full understanding of the agency and other approving governmental authorities to avoid delay of contract approval and consequential delay of the MPS. |
| 2 | 09-30-10 | FD | Cost | Staffing Plan | The project staffing plan needs to be formatted during PE and updated at least quarterly during FD to manage SCC 80 costs and monitor design production. |
| 3 | 09-30-10 | FD | Scope | Letter of No Prejudice (LONPs) | A defined scope of grantee and PMOC responsibilities needs to be provided for content and acceptability of LONP requests. |
| 4 | 09-30-10 | FD | Management | SSMP | FD consultants should be trained, shortly after mobilization, in the format and their responsibility regarding the System Safety Consultant. |
| 5 | 10-30-10 | FD | Cost | Baseline Cost Estimate (BCE) Update | The BCE should be updated with current costs as soon as they are known by the Project to allow mitigation of cost contingency usage. |
| 6 | 02-21-12 | FD | Management | Program Controls | Program Controls system/software selected for use for the duration of the project should be in place and functional prior to approval to enter FD. Doing so will avoid a transition during FD that could create a lag in timely reporting of cost and schedule status. |
| 7 | 02-21-12 | FD | Management | Risk Mitigation | Oversight Procedure (OP) 40 needs to be revised to establish minimum requirements for secondary mitigation at different phases of the project, similar to those for cost and schedule contingency. The PMOC recommends five percent of project cost at Entry into FD and three percent at execution of an FFGA. |
| 8 | 02-21-12 | FD | Scope | Third Party Agreements | All third party agreements need to be identified as soon as possible, but no |

| LL# | Date | Phase | Category | Subject | Lesson Learned |
|-----|----------|-------|---------------------------|------------------------------|--|
| | | | | | later than 65% design completion. This includes leases, both temporary and permanent; MOUs; and licenses, specifically for preconstruction property surveys and settlement monitoring instruments (especially important for underground construction). These third party agreements need to be secured no later than the advertisement date of the construction that they affect. Third party agreements need to be tracked by the project continuously, reported monthly, and updated in a third party agreement matrix submitted quarterly to FTA. |
| 9 | 02-21-12 | FD | Cost | Cost Estimating Procedures | During the preliminary design phase, the Project should establish the cost estimating procedures, format, and software to be used by all estimating entities for the entire duration of the project. |
| 10 | 02-21-12 | FD | Cost | Allocated Cost Contingency | In the BCE submitted to FTA for Entry into FD, the Project should identify percentages of allocated cost contingency contained in the BCE that are apportioned for design risk, market risk, and construction risk. |
| 11 | 02-28-12 | FD | QA | Design Management Action Log | Design Management should develop a matrix as a tracking tool to document, track, and close out known elements that are missing from design submission packages. |
| 12 | 08-15-12 | FD | Environmental Mitigations | MMRP | Numerous mitigations identified in the MMRP are to be handled by incorporating specific design details and/or statements in the contract drawings and technical specifications. The grantee should note on the MMRP the relevant drawings and/or technical specifications. |

| LL# | Date | Phase | Category | Subject | Lesson Learned |
|-----|----------|--------|------------|---|---|
| 13 | 08-31-12 | FD | Management | Risk Contingency Levels and Hold Points | It became apparent, during the monitoring of the cost contingency drawdown curve for the project that the contingency levels and hold points no longer represented the current stage of project development and risk reduction/contingency usage related to project development. The project advanced through 100 percent project design; however, the project did not receive credit for the cost contingency usage established by the risk model. The PMOC recognized this deficiency and participated with the grantee in developing a cost contingency drawdown that reflects current project development and reduced risk. |
| 14 | 06-30-13 | Const. | Management | Change Order Process | Perform an audit of the Project's procedures related to Change Orders and processing. The Project should train staff and inform contractor of their obligations in the process. |

APPENDIX D. CONTRACT STATUS

The following sections provide the status of ongoing contracts associated with the CSP.

| | |
|------------------------------|--|
| Contract No. | 1250 |
| Contract Description: | UR #1 (YBM) |
| Status: | Completed June 2011. |
| Cost: | Original Contract Value \$9,273,939 |
| | Approved Change Orders \$2,694,211 |
| | Current Contract Value \$11,968,150 |
| | Expended to Date \$11,968,150 |
| | % Expended 100 |
| | DBE Participation |
| Schedule: | Completed June 2011 |
| Issues or Concerns: | Final claim by contractor for delays caused by archaeological discoveries has not been resolved. |

| | |
|------------------------------|--|
| Contract No. | 1251 |
| Contract Description: | UR #2 (UMS) |
| Status: | Work is complete. Project closeout continues |
| Cost: | Original Contract Value \$16,832,550 |
| | Approved Change Orders \$3,962,031 |
| | Current Contract Value \$20,794,581 |
| | Expended to Date \$20,794,581 |
| | % Expended 100 |
| | DBE Participation |
| Schedule: | Substantial completion in August 2012 |
| Issues or Concerns: | Final claim by contractor has not been resolved. |

| | |
|------------------------------|--|
| Contract No. | 1252 |
| Contract Description: | Tunnels |
| Status: | NTP 1 was January 2012. TBM #1 and TBM #2 currently tunneling. |
| Cost: | Original Contract Value \$233,584,015 |
| | Approved Change Orders (\$2,631,680) |
| | Current Contract Value \$230,952,335 |
| | Expended to Date \$145,346,521 |
| | % Expended 62.2% |
| | DBE Participation |
| Schedule: | Substantial completion expected April 2015. Total contract days are 1,150. |
| Issues or Concerns: | |
| Contract No. | 1300 |
| Contract Description: | Three subway stations (YBM, UMS, and CTS) and STS. |
| Status: | Contract awarded. Four contracts have been combined into one. |
| Cost: | Original Contract Value 839,676,400 |
| | Approved Change Orders NA |
| | Current Contract Value NA |
| | Expended to Date NA |
| | % Expended NA |
| | DBE Participation Contract states 20%. Low bidder at 25% |
| Schedule: | NTP issued June 17, 2013. |
| Issues or Concerns: | |

| | | |
|------------------------------|---|---|
| Contract No. | CS-155-1 | |
| Contract Description: | Design Package 1 for Contracts 1250, 1251, and 1252. PB/ Telemon | |
| Status: | Design is complete. Construction support is ongoing for Contract 1252. | |
| Cost: | Original Contract Value | \$5,795,000 (includes exercised options) |
| | Approved Change Orders | \$ 1,697,245 |
| | Current Contract Value | \$7,492,245 |
| | Expended to Date | \$7,072,142 |
| | % Expended | 94.39% |
| | DBE Participation | 31.5% |
| Schedule: | | |
| Issues or Concerns: | | |
| | | |
| Contract No. | CS-155-2 | |
| Contract Description: | Design Package 2 for UMS, CTS, and YBM. CSDG prime | |
| Status: | Designs are complete for all of the station contracts. Construction support of Contract 1300 is underway. | |
| Cost: | Original Contract Value | \$35,059,252 (includes exercised options) |
| | Approved Change Orders | \$1,460,360 |
| | Current Contract Value | \$36,519,612 |
| | Expended to Date | \$26,430,685 |
| | % Expended | 72.37% |
| | DBE Participation | 43.4% |
| Schedule: | | |
| Issues or Concerns: | | |
| | | |

| | | |
|------------------------------|--|--------------|
| Contract No. | CS-155-3 | |
| Contract Description: | Design Package 3 for STS. HNTB-B&C Prime | |
| Status: | Design is complete. Construction support of Contract 1300 is underway. | |
| Cost: | Original Contract Value | \$16,822,238 |
| | Approved Change Orders | \$313,014 |
| | Current Contract Value | \$17,135,252 |
| | Expended to Date | \$11,541,632 |
| | % Expended | 67.35% |
| | DBE Participation | 30.0% |
| Schedule: | | |
| Issues or Concerns: | | |

| | | |
|------------------------------|---|---------------------|
| Contract No. | CS-149 | |
| Contract Description: | Central Subway Partnership (Project Manager/Construction Manager). | |
| Status: | On-going | |
| Cost: | Original Contract Value | \$85,139,092 |
| | Approved Change Orders | 0 |
| | Current Contract Value | \$85,139,092 |
| | Expended to Date | \$36,400,000 (est.) |
| | % Expended | 42.75% |
| | DBE Participation | 37.15% |
| Schedule: | | |
| Issues or Concerns: | Expended to date figure is only an estimate. | |

| | | |
|------------------------------|--|--------------------|
| Contract No. | CS 156 | |
| Contract Description: | Project Controls Consultant. | |
| Status: | On-going. | |
| Cost: | Original Contract Value | \$17,112,873 |
| | Approved Change Orders | 0 |
| | Current Contract Value | \$17,112,873 |
| | Expended to Date | \$5,963,668 (est.) |
| | % Expended | 34.85% |
| | DBE Participation | 24.31% |
| Schedule: | | |
| Issues or Concerns: | Expended to date figure is only an estimate. | |

APPENDIX E. LIST OF ACRONYMS

| | |
|-------|--|
| BART | Bay Area Rapid Transit |
| BCE | Baseline Cost Estimate |
| BIH | Barnard Impregilo Healy JV |
| CMB | Configuration Management Board |
| CMod | Contract Modification |
| COR | Change Order Request |
| CPUC | California Public Utilities Commission |
| CSP | Central Subway Project |
| CTS | Chinatown Station |
| EPC | Enterprise Planning and Controls |
| FD | Final Design |
| FFGA | Full Funding Grant Agreement |
| FLSC | Fire and Life Safety Committee |
| FTA | Federal Transit Administration |
| IRP | Independent Review Panel |
| LONP | Letter of No Prejudice |
| LRV | Light Rail Vehicle |
| MARAD | U.S. Maritime Administration |
| MMRP | Mitigation Monitoring Reporting Program |
| MOU | Memorandum of Understanding |
| MPS | Master Project Schedule |
| NTP | Notice to Proceed |
| OP | Oversight Procedure |
| PE | Preliminary Engineering |
| PMOC | Project Management Oversight Contractor |
| PMP | Project Management Plan |
| QA/QC | Quality Assurance/Quality Control |
| QPRM | Quarterly Progress Review Meeting |
| RAMP | Real Estate Acquisition Management Plan |
| RCMP | Risk and Contingency Management Plan |
| RE | Resident Engineer |
| RSD | Revenue Service Date |
| SBE | Small Business Enterprise |
| SCC | Standard Cost Category |
| SFFD | San Francisco Fire Department |
| SFMTA | San Francisco Municipal Transportation Agency |
| SFPUC | San Francisco Public Utilities Commission |
| SSCRC | Safety and Security Certification Review Committee |
| SSMP | Safety and Security Management Plan |
| STS | Surface, Track, and Systems |
| TBM | Tunnel Boring Machine |
| TFMP | Transit Fleet Management Plan |
| UMS | Union Square/Market Street Station |
| UR | Utility Relocation |
| YBM | Yerba Buena/Moscone Station |

ATTACHMENT A
CENTRAL SUBWAY PROJECT: Project Overview and Map

| | |
|----------------------------------|--|
| Date: | October 31, 2013 |
| Project Name: | Central Subway Project (CSP) New Starts Light Rail Transit |
| Grantee: | San Francisco Municipal Transportation Agency (SFMTA) |
| FTA Regional contact: | Mr. Jeffrey S. Davis |
| FTA Headquarters contact: | Ms. Kim Nguyen |

Scope

Description: The CSP would extend the Third Street Light Rail line from the Caltrain station at Fourth and King Streets to Chinatown. It was incorporated in the FEIS/FEIR on the Third Street Light Rail project published in December 1998, but FTA did not include the CSP in the Record of Decision (ROD) issued in March 1999. An ROD for the CSP, however, was issued by FTA on November 26, 2008, and the U.S. Department of Transportation and FTA determined that the requirements of the National Environmental Policy Act (NEPA) of 1969 were satisfied for the CSP. The environmental record for the CSP is included in the Final Supplemental Environmental Impact Statement (SEIS), Volume II, dated July 11, 2008 and the Final SEIS, Volume I, dated September 23, 2008. These documents present the detailed statement required by NEPA and U.S.C. 5324 (b). SFMTA requested authority to enter Preliminary Engineering (PE) in March 2002 and submitted a Project Management Plan (PMP) in June 2002. FTA approved entry into PE in July 2002. Approval to enter Final Design (FD) was granted by FTA on January 7, 2010. The Full Funding Grant Agreement (FFGA) was signed on October 11, 2012

Guideway: The length of the CSP would be 1.7 miles of double-tracked line.

Stations: The CSP includes three subway stations and one surface station.

Additional Facilities: The CSP does not include any ancillary facilities.

Vehicles: The CSP Service Plan dated October 2009 clarified that approximately four vehicles will be required.

Ridership: 43,521 Average Weekday Boardings are projected in 2030.

Schedule

| | | | |
|----------|--|------|----------------------------------|
| 07/02 | Approval Entry to PE | 2016 | Estimated Rev Ops at Entry to PE |
| 01/10 | Approval Entry to FD | 2018 | Estimated Rev Ops at Entry to FD |
| 10/11/12 | FFGA | 2018 | Estimated Rev Ops at FFGA |
| 12/18 | Revenue Operations Date at date of this report | | |

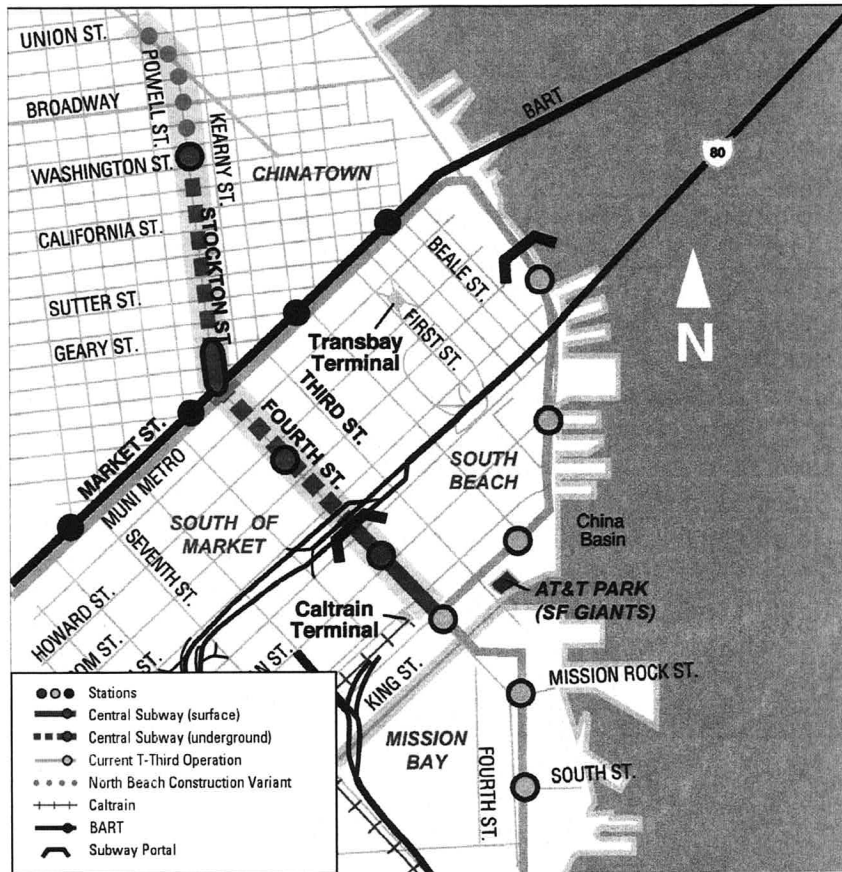
17% *Percent Complete Construction (October 2013 data)*

Cost

| | |
|-------------------|---|
| \$764 million | Total Project Cost (\$YOE) at Approval Entry to PE |
| \$1,578 million | Total Project Cost (\$YOE) at Approval Entry to FD |
| \$1,578 million | Total Project Cost (\$YOE) at FFGA signed |
| \$TBD million | Total Project Cost (\$YOE) at Revenue Operations |
| \$1,578 million | Total Project Cost (\$YOE) at date of this report including \$0.00 in Finance Charges |
| \$407.641 million | Amount of Expenditures at date of this report from Total Project Budget of \$1,578 million |
| 25.8% | Percent Complete based on Expenditures at date of this report |
| \$10.85 million | Unallocated Contingency remaining |
| \$72.79 million | Total Project Contingency (allocated and unallocated contingency as reported by CSP) |
| \$140 million | Minimum Total Project Contingency revised on September 5, 2012 PMOC review of Contingency Management Plan |

| | AT HOLD POINTS | QTR | Minimum Contingency Levels | Revised Levels |
|--|---|------|----------------------------------|-------------------|
| | | | | |
| 1A | Hold Point 1a – Tunnels 100% designed February 2011 (Actual) | 1Q11 | 280 | 280 |
| 1B | Hold Point 1b – CTS 100% designed June 2012 (Actual) | 4Q11 | 250 | 240 |
| 1C | Hold Point 1c – 40% Bid (Tunnel and CTS) | 2Q12 | 225 | 200 |
| 1D | Hold Point 1d – FFGA Award. October 2012 (Actual) | 3Q12 | - | 180 |
| 2 | Hold Point 2 – Commence CTS / UMS construction. Expected June 2013 (Actual June 17, 2013) | 2Q13 | 160 | 160 |
| 3 | Hold Point 3 – Demobilize Tunnels Expected June 2014 | 2Q14 | 140 | 140 |
| 4 | Hold Point 4 – Stations to platform levels (CTS/MOS) January 2017 | 1Q17 | 60 | 60 |
| 5 | Hold Point 5 – Complete CTS / Tunnels systems inst. July 2018 | 3Q18 | 25 | 25 |
| RSD | PMOC / FTA RSD | 4Q18 | | |
| CURRENT TOTAL CONTINGENCY \$72.79 Million | | | | |

Project Map



ATTACHMENT B: SAFETY AND SECURITY CHECKLIST

| | | | |
|--|--------------------|--------------------------|--|
| Central Subway Project Overview | | | |
| Project mode (Rail, Bus, BRT, Multimode) | Light Rail Transit | | |
| Project phase (Preliminary Engineering, Design, Construction, or Start-up) | Construction | | |
| Project Delivery Method (Design/Build, Design/Build/Operate/Maintain, CM/GC, etc.) | Design-Bid-Build | | |
| Project Plans | <i>Version</i> | <i>Review by FTA/FRA</i> | Status |
| Safety and Security Management Plan | 2011 | 2011 | Update submitted to FTA 02/25/2011. Not submitted to FRA. |
| Safety and Security Certification Plan (SSCP) | 2011 | | SSCP was revised 10/2011. Revision 1 was developed in November 2011. Not submitted to FRA. |
| System Safety Program Plan (SSPP) | 2009 | 2009 | SSPP dated 03/13/2009 submitted to FTA 07/31/2009. Not submitted to FRA. |
| System Security Plan (SSP) or Security and Emergency Preparedness Plan (SEPP) | 2009 | | Not submitted to FTA. Not submitted to FRA. |
| Construction Safety and Security Plan | 2012 | | Health and Safety Construction Safety Standards Revision 3, June 27, 2012 |
| Safety and Security Authority | <i>Y/N</i> | | Notes/Status |
| Is the grantee subject to 49 CFR Part 659 state safety oversight requirements? | Y | | |
| Has the state designated an oversight agency as per Part 659.9? | Y | | California Public Utilities Commission (CPUC) Consumer Protection & Safety Division 505 Van Ness Avenue San Francisco, CA 94102 (415) 703-1017 phone (415) 703-1758 fax Point of contact: Arun Mehta |

| | | |
|---|-----|--|
| Has the oversight agency reviewed and approved the grantee's SSPP as per Part 659.17? | Y | SFMTA currently operates its LRT system in compliance with a SSPP approved by the CPUC. These plans will be revised, as required to incorporate the addition of the CSP, during the late construction and early testing phase and submitted to the CPUC for approval prior to the planned start of revenue operations. |
| Has the oversight agency reviewed and approved the grantee's Security Plan or SEPP as per Part 659.21? | Y | See above. |
| Did the oversight agency participate in the last Quarterly Program Review Meeting? | Y | |
| Has the grantee submitted its safety certification plan (SCP) to the oversight agency? | Y | SFMTA submitted the SSCP to CPUC staff for review and Commission approval during the preliminary engineering phase. The plan was approved in March 2009. The SSCP revised in November 2011 will be submitted to the CPUC for approval. |
| Has the grantee implemented security directives issues by the Department Homeland Security, Transportation Security Administration? | N/A | Currently, there are no TSA directives or programs applicable to the project. If any arise during the course of the project, the activities to comply will be developed and shown on a revision of the project safety and security activities schedule. |
| SSMP Monitoring | | |
| Is the SSMP project-specific, clearly demonstrating the scope of safety and security activities for this project? | Y | The PMOC reviewed the CSP SSMP and provided a spot report to FTA in May 2011. FTA approved the CSP SSMP on May 16, 2011. A follow-up Adherence Audit was conducted September 14-16, 2011. The audit found that CSP is conducting its activities in accordance with the SSMP. |
| Grantee reviews the SSMP and related project plans to determine if updates are necessary? | Y | Grantee plans to update the SSMP in September 2013. |

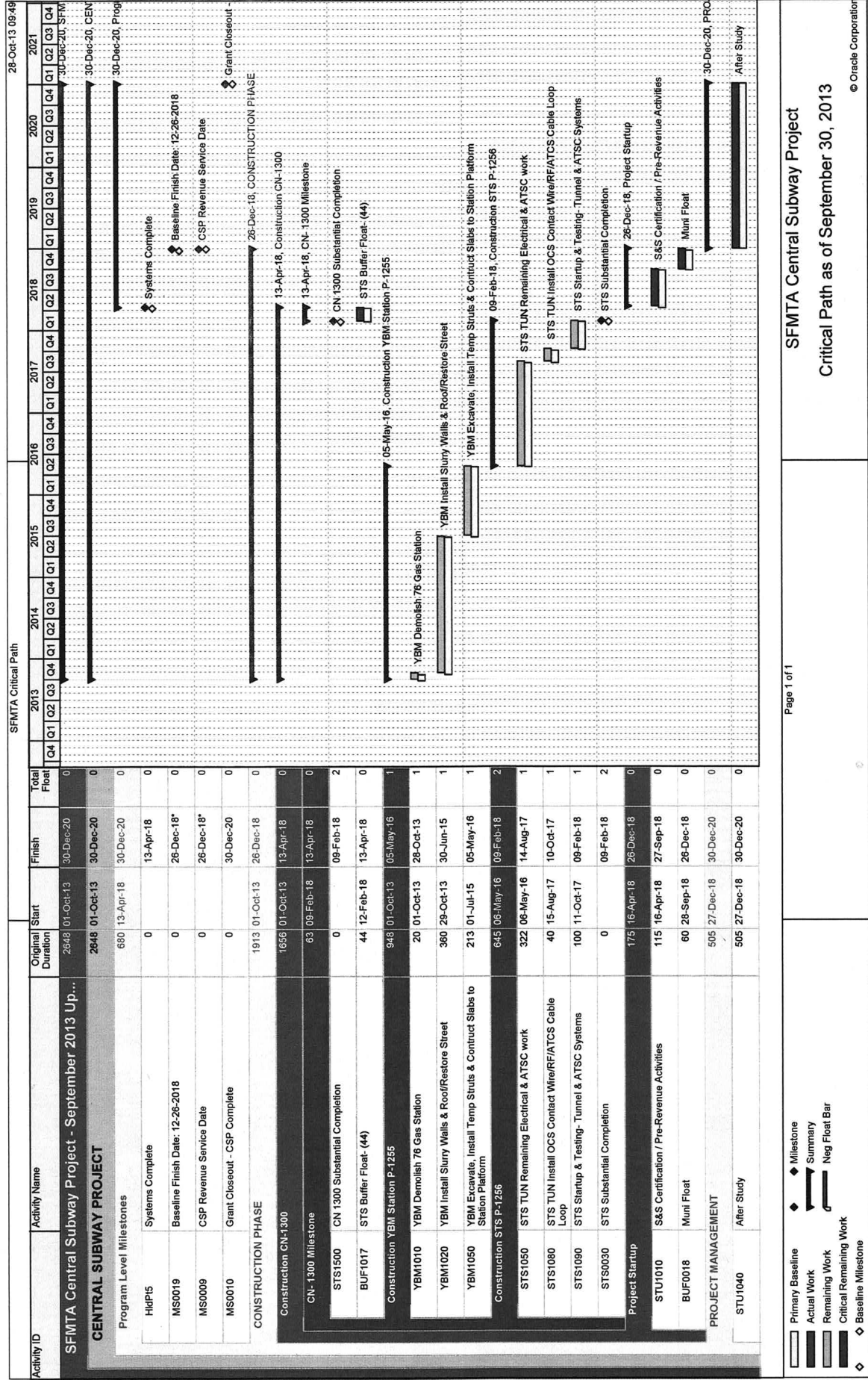
| | | |
|---|---|---|
| Does the grantee implement a process through which the Designated Function (DF) for Safety and DF for Security are integrated into the overall project management team? Please specify. | Y | Safety and security are under the direction of the SFMTA Safety and Security Manager and supplemented by Project Management / Construction Management consultant staff, including a Safety and Security Certification professional who has been dedicated to supervise project Safety and Security Certification. |
| Does the grantee maintain a regularly scheduled report on the status of safety and security activities? | Y | Construction activities are reported in the weekly construction progress meetings and the CSP Monthly Progress Report. |
| Has the grantee established staffing requirements, procedures and authority for safety and security activities throughout all project phases? | Y | |
| Does the grantee update the safety and security responsibility matrix/organizational chart as necessary? | Y | The PMOC found the revised matrix in the SSMP, rev. 1, 02/08/11, to be compliant. |
| Has the grantee allocated sufficient resources to oversee or carry out safety and security activities? | Y | |
| Has the grantee developed hazard and vulnerability analysis techniques, including specific types of analysis to be performed during different project phases? | Y | CSP has prepared a Preliminary Hazard Analysis Report, Rev. 0, April 23, 2009. Corrective actions and analysis for different project phases have been identified in the report. |
| Does the grantee implement regularly scheduled meetings to track to resolution any identified hazards and/or vulnerabilities? | Y | |
| Does the grantee monitor the progress of safety and security activities throughout all project phases? Please describe briefly. | Y | Safety & Security is an ongoing agenda item on the current construction contracts (1252 and 1300). |
| Does the grantee ensure the conduct of preliminary hazard and vulnerability analyses? Please specify analyses conducted. | Y | |

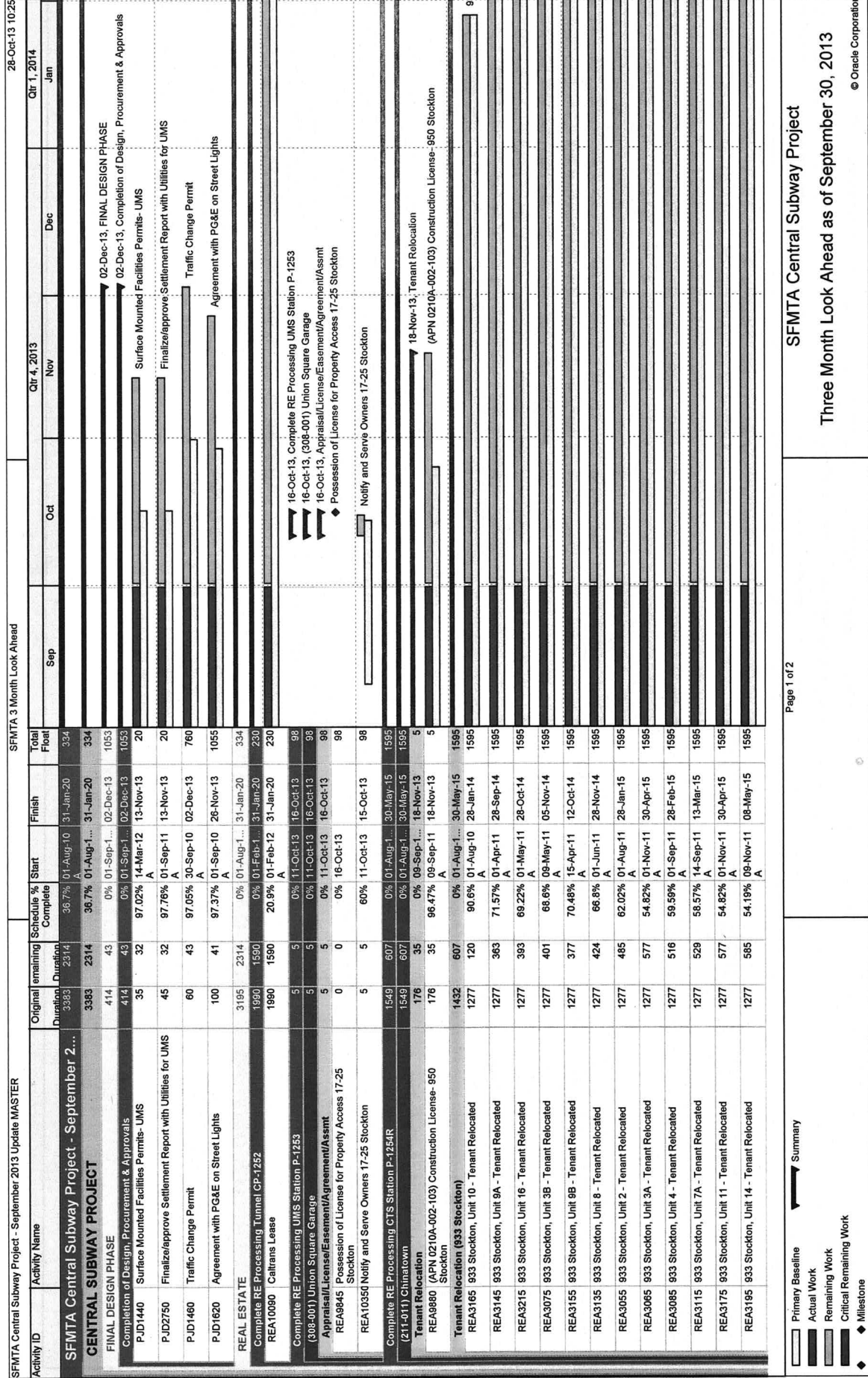
| | | |
|--|-----|---|
| Has the grantee ensured the development of safety design criteria? | Y | |
| Has the grantee ensured the development of security design criteria? | Y | |
| Has the grantee ensured conformance with safety and security requirements in design? | Y | Certification checklists are developed and certified. |
| Has the grantee verified conformance with safety and security requirements in equipment and materials procurement? | Y | Safety and Security Conformance checklists have been prepared for each of the construction contracts. |
| Has the grantee verified construction specification conformance? | Y | |
| Has the grantee identified safety and security critical tests to be performed prior to passenger operations? | N | Currently being developed. |
| Has the grantee verified conformance with safety and security requirements during testing, inspection and start-up phases? | N | Project is in early stages of construction. |
| Does the grantee evaluate change orders, design waivers, or test variances for potential hazards and /or vulnerabilities? | Y | |
| Has the grantee ensured the performance of safety and security analyses for proposed work-arounds? | N/A | |

| | | |
|---|-----|---|
| Has the grantee demonstrated through meetings or other methods, the integration of safety and security in the following: <input type="checkbox"/> Activation Plan and Procedures <input type="checkbox"/> Integrated Test Plan and Procedures <input type="checkbox"/> Operations and Maintenance Plan <input type="checkbox"/> Emergency Operations Plan | N/A | Currently being developed. An Integration Matrix has been implemented for all disciplines including safety and security concerns. |
| Has the grantee issued final safety and security certification? | N | Project is in early construction phase. |
| Has the grantee issued the final safety and security verification report? | N | Project is in early construction phase. |
| Construction Safety | | |
| Does the grantee have a documented/ implemented Contractor Safety Program with which it expects contractors to comply? | Y | Health and Safety Construction Safety Standards Revision 3, June 27, 2012 |
| Does the grantee's contractor(s) have a documented companywide safety and security program plan? | Y | |
| Does the grantee's contractor(s) have a site-specific safety and security program plan? | Y | There is currently one contractor that has a plan. Contract documents require that the contractor develops an Environmental Health and Safety Program, specific to the contract work. |
| Provide the grantee's OSHA statistics compared to the national average for the same type of work? | Y | Provided in the Central Subway Monthly Progress Report |
| If the comparison is not favorable, what actions are being taken by the grantee to improve its safety record? | N/A | Statistics are favorable. No action is needed. |

| | | |
|--|-----|---|
| Does the grantee conduct site audits of the contractor's performance versus required safety/security procedures? | Y | |
| Federal Railroad Administration | | |
| If shared track: has grantee submitted its waiver request application to FRA? (Please identify specific regulations for which waivers are being requested) | N/A | No shared track. No waivers are anticipated. |
| If shared corridor: has grantee specified specific measures to address shared corridor safety concerns? | N/A | |
| Is the CHA underway? | N/A | |
| Other FRA required Hazard Analysis – Fencing, etc.? | N/A | |
| Does the project have Quiet Zones? | N | |
| Does FRA attend the Quarterly Review Meetings? | N | |

N/A = Not applicable.





SFMTA Central Subway Project - September 2013 Update MASTER

SFMTA 3 Month Look Ahead

28-Oct-13 10:25

| Activity ID | Activity Name | Original Duration | Remaining Duration | Schedule % Complete | Start | Finish | Total | Sep | Oct | Nov | Dec | Qtr 1, 2014 |
|-----------------------------------|--|-------------------|--------------------|---------------------|-------------|-----------|-------|-----|-----|-----|-----|-------------|
| REA3225 | 933 Stockton, Unit 17 - Tenant Relocated | 1277 | 534 | 58.18% | 19-Sep-11 | 18-Mar-15 | 1995 | | | | | Qtr 1, 2014 |
| REA3605 | 933 Stockton, Unit 1 - Tenant Relocated | 1277 | 607 | 52.47% | 01-Dec-11 | 30-May-15 | 1995 | | | | | Jan |
| LRV1400 | VEHICLES | 273 | 112 | 36.7% | 15-Apr-1... | 14-Mar-14 | 238 | | | | | |
| LRV1400 | LRV Vendor Selection | 273 | 112 | 51.3% | 15-Apr-13 | 14-Mar-14 | 238 | | | | | |
| CONSTRUCTION PHASE | | | | | | | | | | | | |
| Construction Tunnels CN-1252 | | 844 | 724 | 0% | 01-Apr-1... | 24-Sep-15 | 96 | | | | | |
| Interface Points and Buffer Float | | 0 | 0 | 0% | 28-Oct-13 | 28-Oct-13 | 8 | | | | | |
| TUN9850 | UMS Headwalls Complete- CN 1252 & Master Schedule Interface | 0 | 0 | 0% | 28-Oct-13 | 28-Oct-13 | 8 | | | | | |
| Construction CN-1300 | | 830 | 724 | 0% | 17-Jun-1... | 24-Sep-15 | 96 | | | | | |
| CTS2120 | CN 1300- CTS Req'd - Tunnel Interface Complete (450 CD from NTP) | 450 | 344 | 23.56% | 17-Jun-13 | 09-Sep-14 | 231 | | | | | |
| UMS2100 | CN 1300- UMS & YBM Req'd - Tunnel Interface Complete (620 CD from NTP) | 620 | 514 | 17.1% | 17-Jun-13 | 26-Feb-15 | 104 | | | | | |
| STS10020 | CN 1300- STS Req'd Tunnel Portal Completion (830 CD from NTP) | 830 | 724 | 12.77% | 17-Jun-13 | 24-Sep-15 | 96 | | | | | |
| Construction UMS Station P-1263 | | 211 | 97 | 0% | 17-Jun-1... | 13-Jan-14 | 8 | | | | | |
| UMS2020 | UMS Tunnel Interface Finish UMS Head Walls (Req'd Sep 14, 2013) | 0 | 0 | 0% | 17-Jun-13 | 28-Oct-13 | 8 | | | | | |
| UMS1010 | UMS Preliminary Street Work | 20 | 20 | 0% | 29-Oct-13 | 13-Jan-14 | 6 | | | | | |
| UMS1000 | UMS Submittals and Mobilize | 100 | 26 | 74% | 17-Jun-13 | 13-Nov-13 | 20 | | | | | |
| Construction CTS Station P-1254R | | 115 | 41 | 0% | 17-Jun-1... | 02-Dec-13 | 4 | | | | | |
| CTS1000 | CTS Submittals, Permits, & Perform Environmental Soil Borings | 115 | 41 | 64.35% | 17-Jun-13 | 02-Dec-13 | 4 | | | | | |
| Construction YBM Station P-1265 | | 380 | 380 | 0% | 01-Oct-13 | 30-Jun-15 | 1 | | | | | |
| YBM1010 | YBM Demolish 76 Gas Station | 20 | 20 | 0% | 01-Oct-13 | 28-Oct-13 | 1 | | | | | |
| YBM1020 | YBM Install Slurry Walls & Roof/Restore Street | 360 | 360 | 0% | 29-Oct-13 | 30-Jun-15 | 1 | | | | | |
| Construction STS P-1256 | | 370 | 358 | 0% | 15-Aug-1... | 11-Mar-15 | 203 | | | | | |
| STS1010 | STS 4th Street Utility Work | 370 | 358 | 8.65% | 15-Aug-13 | 11-Mar-15 | 203 | | | | | |
| Fare Collection | | 92 | 92 | 0% | 01-Oct-13 | 31-Dec-13 | 238 | | | | | |
| FC3312 | Draft, Finalize and Route Change Order | 92 | 92 | 0% | 01-Oct-13 | 31-Dec-13 | 238 | | | | | |
| SF Arts Commission (SFAC) | | 251 | 123 | 0% | 01-Apr-1... | 31-Mar-14 | 6 | | | | | |
| SFAC002 | Art Work Design | 251 | 123 | 67.72% | 01-Apr-13 | 31-Mar-14 | 6 | | | | | |

▼ 28-Oct-13, Construction Tunnels CN-1252
 ▼ 28-Oct-13, Interface Points and Buffer Float
 I UMS Headwalls Complete- CN 1252 & Master Schedule Interface

◆ UMS Tunnel Interface Finish UMS Head Walls (Req'd Sep 14, 2013)
 UMS Preliminary

UMS Submittals and Mobilize
 02-Dec-13, Construction CTS Station P-1254R
 CTS Submittals, Permits, & Perform Environmental Soil Borings

YBM Demolish 76 Gas Station

31-Dec-13, Fare Collection Draft, Finalize and Route Change

ATTACHMENT E

The PMOC's Central Subway Points of Action for SFMTA

(Note: All closed items are removed a month after being closed. Changes to open items since last update are indicated in BLUE.)

| Category | NO. | ACTION | DATE OPENED | DUE DATE | DATE CLOSED | COMMENTS |
|----------|-----|---|-------------|----------------------------|-------------|--|
| SC | 126 | Provide Ship America compliance documents for the Tunnel contract | 11/21/12 | 30 days after ship loading | | The U.S. Maritime Administration (MARAD) is considering corrective action to BIH for non-compliance. |
| RA | 144 | Develop a Schedule Contingency Recovery Plan and Monte Carlo Risk Analysis | 06/17/13 | 09/30/13 | 10/11/13 | Workshops held on 8/13/13 and 8/29/13. CSP to supplement the May 2013 Contingency Management Report with the latest data. Report received on 10/11/13. Under review. Closed |
| C | 145 | Revise and resubmit June 2013 Cost Report. Revise the format of the cost summary spreadsheet and provide details for cost changes | 08/05/13 | 09/20/13 | | CSP expects to submit revised summary spreadsheets and narrative on cost reporting changes in the August MPR. This did not happen. Expected 11/06/13. |
| FMP | 146 | Respond to PMOC comments on the Central Subway Project Rail Systems/Operations Capacity Analysis review, dated June 27, 2013. | 07/01/13 | 09/30/13 | 9/20/13 | CSP Report, prepared by SYSTRA and dated April 24, 2013. This same action can also be found in Appendix B of the QPRM (Action #31). The PMOC received comments on 9/20/13. Under review. Closed. |

| Category | NO. | ACTION | DATE OPENED | DUE DATE | DATE CLOSED | COMMENTS |
|----------|-----|--|----------------|-------------|----------------|--|
| T | 148 | Provide new Staff Resumes. YBM and UMS RE's. | 09/03/13 | 09/04/13 | | Received YBM RE resume on 9/23/13. UMS RE resume received on 10/31/13. |
| T | 149 | Provide updated Staffing Plan and Organizational Chart | 09/16/13 | 09/28/13 | | Org chart provided on 10/30/13. Quarterly Staffing update still needed. |
| RA | 150 | Provide updated Risk Mitigation Status sheets for Risks B, U, 202, 205, 210, 212, 213, 215 | 09/16/13 | 10/08/13 | 10/11/13 | Closed. |
| CH | 151 | Provide corrective actions and or procedural changes to prevent CMod processing delays | 09/17/13 | | 10/24/13 | CMod 19 (PCC 6, Additional BART Instrumentation) was delayed, holding up the processing of CMods 20-24. Revised CM 1103 submitted on 10/24/13. |

Category Key:

C – Cost

FMP – Fleet Management Plan

IRP – Independent Review Panel

QA – Quality Assurance

RA – Risk

RE – Real Estate

S – Schedule

SC – Scope

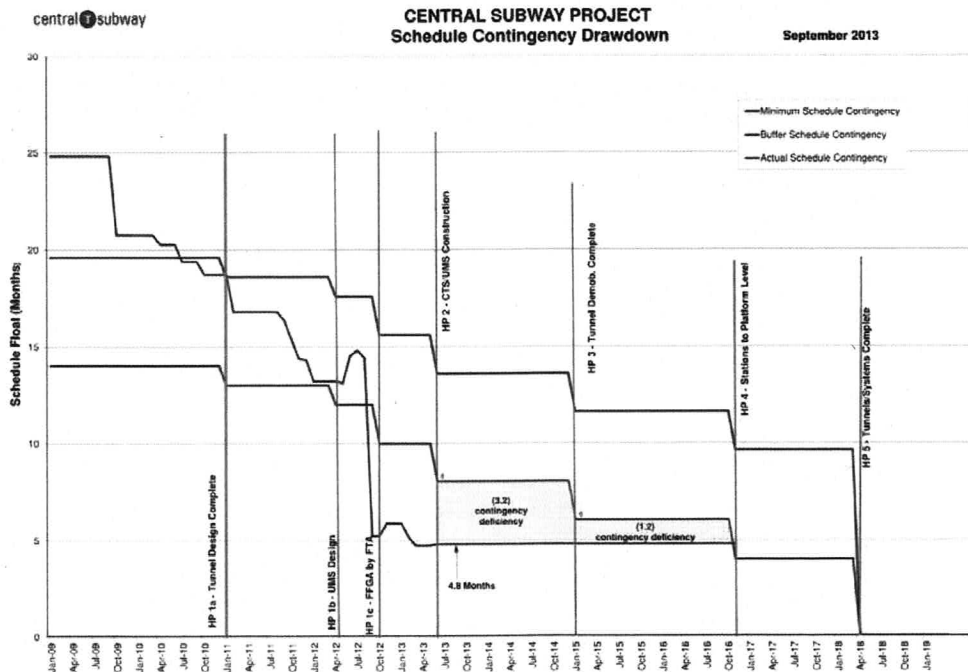
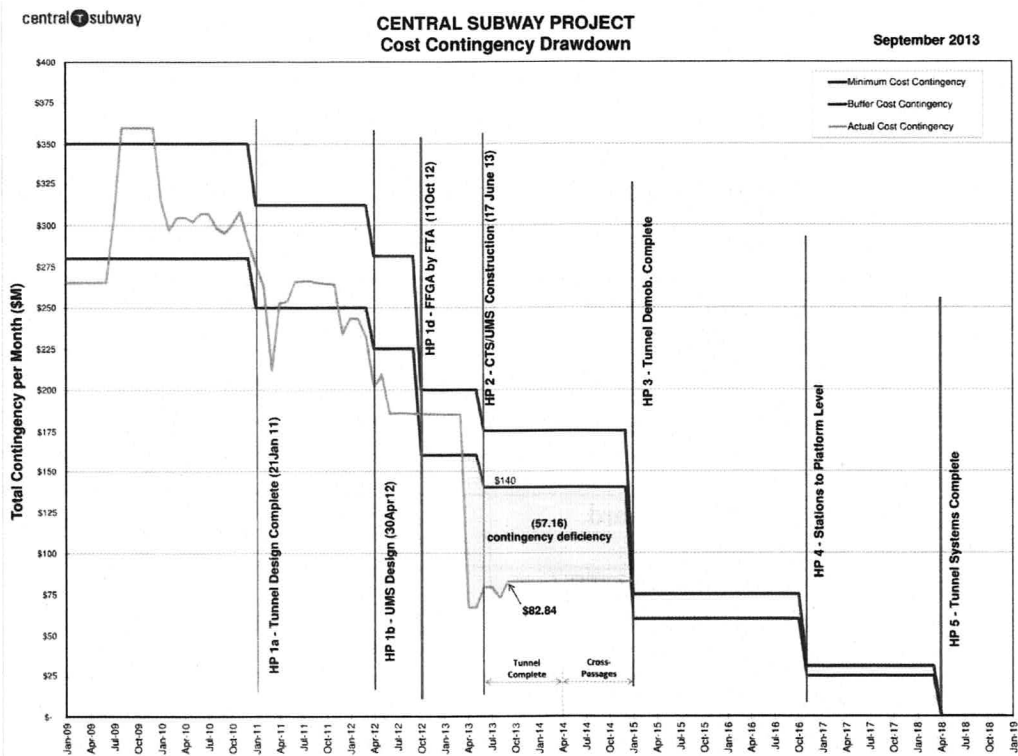
SS – Safety

T – Tech. Cap. & Cap.

CH – Change Mgmt.

ATTACHMENT F

CENTRAL SUBWAY PROJECT: Cost and Schedule Contingency Drawdowns – October 2013



| | AT HOLD POINTS | QTR | Minimum Contingency Levels | Revised Levels |
|--|---|------------|---|---------------------------|
| | | | | |
| 1A | Hold Point 1a – Tunnels 100% designed February 2011 (Actual) | 1Q11 | 280 | 280 |
| 1B | Hold Point 1b – CTS 100% designed June 2012 (Actual) | 4Q11 | 250 | 240 |
| 1C | Hold Point 1c – 40% Bid (Tunnel and CTS) | 2Q12 | 225 | 200 |
| 1D | Hold Point 1d – FFGA Award. October 2012 (Actual) | 3Q12 | - | 180 |
| 2 | Hold Point 2 – Commence CTS / UMS construction. Expected June 2013 (Actual June 17, 2013) | 2Q13 | 160 | 160 |
| 3 | Hold Point 3 – Demobilize Tunnels Expected June 2014 | 2Q14 | 140 | 140 |
| 4 | Hold Point 4 – Stations to platform levels (CTS/MOS) January 2017 | 1Q17 | 60 | 60 |
| 5 | Hold Point 5 – Complete CTS / Tunnels systems inst. July 2018 | 3Q18 | 25 | 25 |
| RSD | PMOC / FTA RSD | 4Q18 | | |
| CURRENT TOTAL CONTINGENCY \$72.79 Million | | | | |