

CS Transmittal No. 2509

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From: John Funghi

Project No./Contract No.: M544.1, CSP

Task No./Title: Cost/Schedule Management

Project Phase: Construction

Date: December 20, 2017

Subject: Monthly Progress Report November 2017

Sent via:	<input type="checkbox"/> mail	<input type="checkbox"/> overnight	<input type="checkbox"/> messenger	<input type="checkbox"/> hand-delivered
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Item No.	Copies	Description	Rev. No.	Date
1	1	Monthly Progress Report (November 2017)	0	12/20/2017

If enclosures are not as noted, kindly notify us at once.

Remarks: This Monthly Progress Report includes cost and schedule details as appendices.


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central subway

Bring in the Rails

Both the north and southbound tracks are being placed between King and Bluxome ahead of track foundation work.



Progress Report

November 2017



SFMTA
Municipal
Transportation
Agency

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Cover photo: *With rails going into place along the first block of 4th street past King, workers are preparing to construct track foundation infrastructure. Crews will work with surveyors to assure exact track placement and elevation prior to pouring sections of the reinforced concrete track foundation slab along the surface portion of the alignment. More photos can be found starting on page 37.*

Above photos: *Looking toward the north end of the Chinatown Station platform cavern, the twin subway tunnels and north emergency egress shaft are clearly visible during the final stages of excavation there. Workers have since finished work excavating the north portion of the platform cavern and are finishing the south cavern.*

See the Appendix E final page for CS websites hyperlinks and public outreach on line resources. The Project main web site is at: <http://www.centralsubwaysf.com/>



A crew constructs massive reinforced concrete beams along the outer walls of the station box, as part of permanent structural reinforcing.

Executive Summary

Chinatown Station - Completed excavation and support for Platform Cavern North (PCN) Center Drift (top heading, bench, invert). Completed on Cross Over Cavern (COC) Left Side Drift. 50% completed COC Center Drift (top heading, bench, invert). Continued street work (minor), ongoing monitoring and surveying. 60% completed barrel vault installation for COC (through Reach 1, 2, and 3 of 7). Excavated and installed Level 6 Walers and Struts. Started compensation grouting.

Union Square/Market Street Station - Platform Station: Continued construction of wale encasements at Platform and Mezzanine levels. Commenced installation of “Scalloped Walls” at Platform Level. Emergency exit stairs 3 and 4: Continued F/R/P for walls, stairs, and landings. North Concourse: Continued HVAC shaft construction including wale encasement and wall construction at fan level. F/R/P permanent struts and deck slabs at Concourse level. South Concourse: Continued escalator ramp walls and slab transition. Ellis Street: Continued pavement restoration work at Ellis Street. Stockton Street: Implemented 2017 Holiday Moratorium Winter Walk.

Yerba Buena/Moscone Station - Continued to replace the force main and AWSS at 4th & Howard. Continued to investigate utility conflicts for 36” force main at Howard. Continued Stair 4 shoring and excavation. 80% completed on electrical rough-in on Mezzanine—Station box. Poured Middle Section East Side topping slab, Mezzanine—Station box. 60% completed on electrical rough-in on Concourse—Station Box. Poured CN102 and CN104 topping slab in Concourse-Station box. Began installing Pyrok, Platform level. Began Rough-in Fire Sprinkler (Headhouse Invert). Delivered electrical substation gear. 25% completed on electrical rough-in on Headhouse-Invert. Completed F/R/P Headhouse Concourse deck. Completed F/R/P Stair 5 & 6 at Headhouse-Concourse. Completed F/R/P Elevators 3 & 4 walls. Began F/R/P Headhouse-Concourse walls. Continued F/R/P Headhouse-Concourse columns. Began F/R/P Headhouse-Mezzanine deck.

Surface, Track and Systems— Continued 18”AWSS lateral installation on 4th/Brannan intersection. Completed 12” water line installation at 4th/Bryant. Continued OCS pole installation. Started installing track; completed section between King and Townsend, including 4th/Townsend intersection. Continued track plinth construction and track installation inside tunnels. Completed pavement renovation at 4th/Townsend intersection.

Tunnel - Contract administrative closeout is ongoing.

Total project costs to date are \$1,151.24 million, an increase of \$11.72 million over last month. The total cost to date equals 72.94% of the total project budget of \$1.578 billion. The Master Project Schedule forecasts a Revenue Service Date of December 2019.

The Stations Contractors’ Safety Reports shows no recordable accident took place this month. The rates of work site accident incidents by the man hours worked continue to be below industry standards - see tables on page 32.

Key Milestones

Construction of the 2017 Winter Walk Holiday Plaza

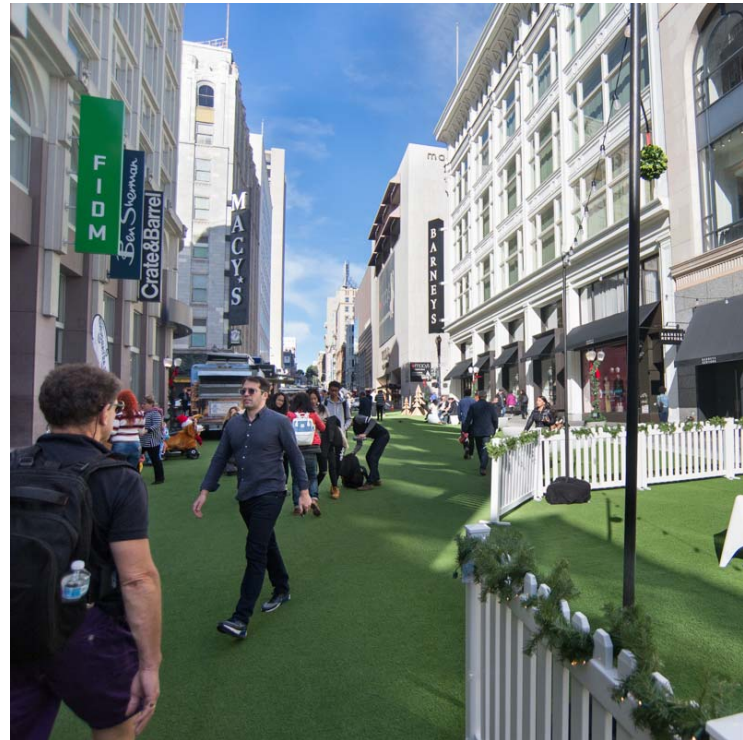


1 Equipment is removed, the site is graded, and utilities are installed

MILESTONE	DATE EXPECTED
General	
Revenue Service	December 2019
Contract 1300 Stations, Surface, Track, Systems	
Notice to Proceed (NTP 1)	June 17, 2013 (A)
Notice to Proceed (NTP 2)	January 12, 2014 (A)
Substantial Completion	February 28, 2018



2 The green turf is assembled along Stockton between Geary and Ellis



3 Benches, lighting, and safety barriers are installed. The site is open!

Costs and Schedule

Costs (See Appendix A for Details)

The Current Cost Estimate (CCE) for the Central Subway Project is **\$1.578 billion** in year of expenditure dollars (\$YOE). This total project cost is shown at the top of Report 7.1, Program Project Budget. This capital cost projection incorporates allocated and unallocated contingencies to cover the risks associated with the project completion.

Total net incurred costs for the project are \$1,151.24 million, a \$11.72 million increase over last month. The cost to date figure reflects expenditures through FAMIS 786 Report (\$1,097.45 million) plus the utilities joint trench Form B Reimbursement payment (\$11.27 million), invoices currently being processed (\$37.98 million) and estimates of outstanding pay requests (\$4.58 million). This incurred amount equals 72.94% of the total project budget of \$1.578 billion.

The current funding level to date is \$1,479.79 million. This represents 94% of the total project budget.

Earned Value Analysis

In November 2017 Report, the Preliminary Earned Value Analysis reports is based on the SFMTA November Schedule Update. The Planned Value, Earned Value, Actual Cost, Percent Complete and resulting indexes as follows:

Preliminary November Earned Value

Overall Budgeted Cost:	\$1,578,300,000
Planned Value:	\$1,468,383,718
Earned Value:	\$1,158,066,262
Actual Cost:	\$1,151,241,688
Schedule Performance Index (SPI):	0.79
Cost Performance Index (CPI):	1.01
Percent Complete:	73.3%

*November 2017 Notice: The City continues to transition from FAMIS to Financial System Project (FSP). During the transition, we are unable to provide accurate financial updates. Once FSP is updated and validated, we will reconcile our reports accordingly. We will be projecting current expenditures and anticipate the reconciled updates will be available early next year.

Please note that we continue to experience problems that are being caused by error and inaccuracy from the transition. The sources of error include errors resulting from mapping index codes in the old FAMIS system to translating chartfield accounts in the new Financial System Project as well as errors arising through processing such as abatements and adjustments being assigned to the incorrect account. As we continue to address these data quality problems through data cleaning, you will continue to see monthly fluctuations as we detect and remove errors and inconsistencies from data in order to improve on the quality of data so that we will be able to report accurate data.

Schedule Highlights

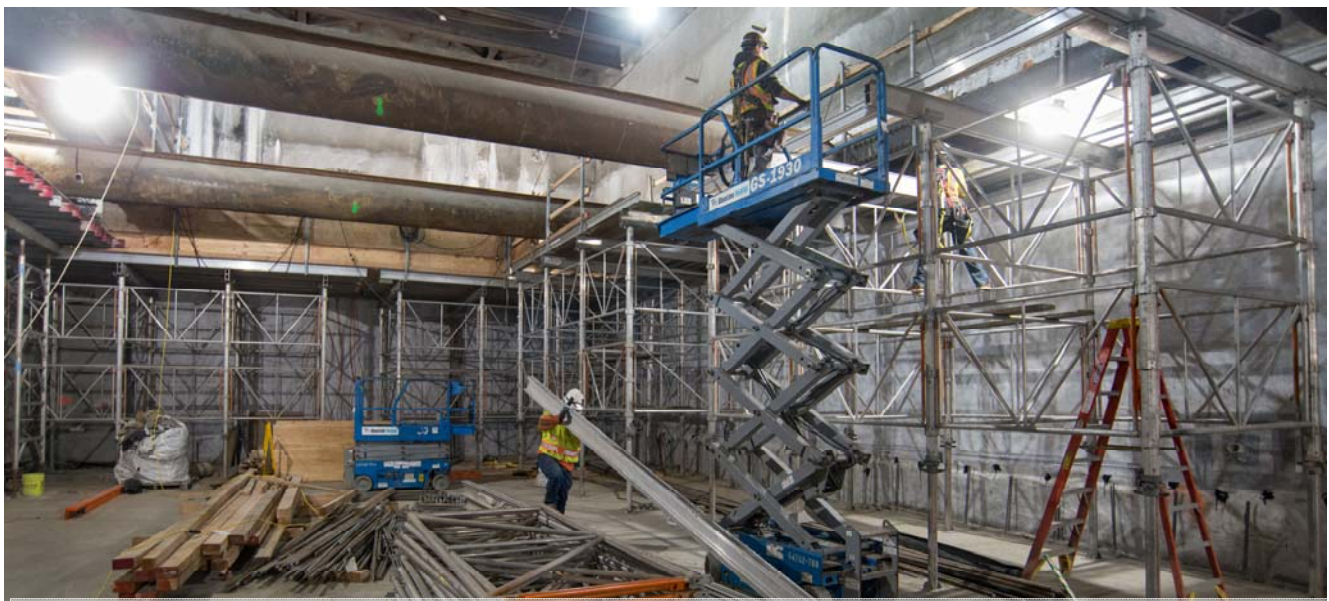
The Master Project Schedule (MPS) below includes progress through November 2017. The November 2017 Schedule Update submittal from Contract 1300 Contractor was not submitted as the CN1300 Contractor has not provided the updated corrections to their June, through September 2017 Schedule Updates. The Contract 1300 schedule represented in this report is based on the SFMTA November 2017 Schedule Update.

The MPS shows a forecast Revenue Service Date of December 2019.

The controlling critical (longest) path of the MPS runs through CTS Excavation succeeded by Head-house Concrete work, Electrical activities, STS Startup & Testing, Commissioning and Pre-Revenue Activities to the Baseline Finish and Revenue Service Date. See Appendix B – Longest Path. The latest schedule shows the longest path running through the Chinatown Station (CTS). Contractor is required to implement a Recovery Schedule to put the Project back on schedule.

Schedule Contingency is fully utilized on the critical path of the MPS, which is below the Minimum Schedule Contingency level of 6 months. A schedule re-evaluation will be performed, utilizing the updated Contract 1300 Schedule. Recovery options are being implemented in key areas as work proceeds. SFMTA continues to meet with Contractor to discuss all schedule concerns and comments. Excavation and Support of the Top Center Drift, Center Bench and Invert Steps of the South Platform Cavern continues. Despite expected ground conditions as described in the GBR, TPC's mining productivity has not been as planned. In an effort to recover some lost time, the Engineer of Record authorized a change of working sequence allowing TPC to perform South Drift excavation of the Crossover prior to completing the South Platform Cavern excavation. These changes allowed Contract 1300 Schedule to maintain the current forecasted Revenue Service Date of December 2019 for the sixth month without additional delay.

Contract 1300 Contractor submitted thirty five (35) Schedule Updates from December 2014 to October 2017. SFMTA rejected twenty (20) Schedule Updates from January 2016 to April 2016 and June 2016 to September 2017 due to multiple and repetitive issues that vary from incorrect working sequences to unrealistic forecasted completion dates to artificially steering the schedule longest path through certain portions of the project. SFMTA approved as noted December 2014 through December 2015, and May 2016 Schedule Updates. Contractor has been directed to develop a Recovery Schedule as required by Contract to mitigate the current forecasted project delay. The 18 month "gap" of missing Schedule Updates at the beginning of the job has interfered with efficient resolution of Contractor's assertions of Unavoidable Delay to the project-wide Substantial Completion date, which is additionally impacting the Contractor's review of options for schedule recovery.



Heavy-duty scaffolding is being assembled inside the north concourse adjacent to Union Square to prepare for construction of the upper level floor slab.

Schedule Highlights - Continued

Contract 1300 - WP1253 UMS / WP1254R CTS / WP1255 YBM / WP1256 STS:

The Contractor, Tutor Perini Corporation's (TPC) baseline schedule is incorporated into the master program schedule. The preliminary SFMTA Contract 1300 November 2017 schedule is used within the November Report. The SFMTA Contract 1300 November 2017 schedule is based on the approved baseline schedule logic with adjustments made for fixing retained logic and lags. The SFMTA will continue to use the SFMTA Contract 1300 schedule update as a forecasting tool going forward until the Contract 1300 Contractor submits an acceptable schedule that addresses all of SFMTA scheduling concerns.

Work Package P-1254R (CTS) has performed the following work this month:

- Completed excavation and support for Platform Cavern North (PCN) Center Drift (top heading, bench, invert)
- Completed on Cross Over Cavern (COC) Left Side Drift
- 50% completed COC Center Drift (top heading, bench, invert)
- Continued street work (minor), ongoing monitoring and surveying
- 60% completed barrel vault installation for COC (through Reach 1, 2, and 3 of 7)
- Excavated and installed Level 6 Walers and Struts
- Started compensation grouting

Work Package P-1253 (UMS) has performed the following work this month:

- Platform Station: Continued construction of wale encasements at Platform and Mezzanine levels. Commenced installation of 'Scalloped Walls' at Platform Level
- Emergency exit stairs 3 and 4: Continued F/R/P for walls, stairs, and landings
- North Concourse: Continued HVAC shaft construction including wale encasement and wall construction at Fan Level. F/R/P permanent struts and deck slabs at Concourse level
- South Concourse: Continued escalator ramp walls and slab transition
- Ellis Street: Continued pavement restoration work at Ellis Street
- Stockton Street: Implemented 2017 Holiday Moratorium Winter Walk

Work Package P-1255 (YBM) has performed the following work this month:

- Continued to replace the force main and AWSS at 4th & Howard
- Continued to investigate utility conflicts for 36" force main at Howard
- Continued Stair 4 shoring and excavation
- 80% completed on electrical rough-in on Mezzanine – Station box
- Poured Middle Section East Side topping slab, Mezzanine – Station box
- 60% completed on electrical rough-in on Concourse – Station box

Schedule Highlights - Continued

- Poured CN102 and CN104 topping slab in Concourse – Station box
- Began installing Pyrok, Platform level
- Began Rough-in Fire Sprinkler (Headhouse Invert)
- Delivered electrical substation gear
- 25% completed on electrical rough-in on Headhouse-Invert
- Completed F/R/P Headhouse Concourse deck
- Began F/R/P Headhouse-Concourse walls
- Completed F/R/P Stairs 5 & 6 at Headhouse-Concourse
- Completed F/R/P Elevators 3 & 4 walls
- Continued F/R/P Headhouse-Concourse columns
- Began F/R/P Headhouse-Mezzanine deck

Work Package P-1256 (STS) has performed the following work this month:

- Continued 18" AWSS installation on 4th/Brannan intersection
- Completed 12" water line installation at 4th/Bryant
- Continued OCS pole installation
- Started installing track; completed section between King and Townsend, including 4th/Townsend intersection
- Continued track plinth construction and track installation inside tunnels
- Completed pavement renovation at 4th/Townsend intersection



Concrete is removed from around the tops of soldier piles surrounding emergency egress stairs on O'Farrell as part of cleanup work ahead of the 2017 Winter Walk.

Master Project Schedule

Activity ID	Activity Name	Original Duration	Original Start	Finish	2018				2019				2020			
					Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
CENTRAL SUBWAY PROJECT					CENTRAL SU											
Program Level Milestones					Program Level Milestones											
PJ01000	Central Subway Project Start	442	06/03/03 A	06/12/20												
MS0004A	Tunnel Excavation Complete - Project Milestone #4A	0	06/03/03 A	09/05/14 A												
MS0019	Baseline Finish Date: 12-26-2018	0		11/26/19*												
MS0008	CSP Revenue Service Date	0		11/26/19*												
Preliminary Engineering Phase																
		2861	06/03/03 A	01/07/10 A												
Final Design																
		1811	01/08/10 A	05/17/13 A												
Light Rail Vehicles																
		2328	04/15/13 A	08/29/19	Light Rail Vehicle											
Real Estate																
		3130	08/01/08 A	11/27/17	Real Estate											
Construction Phase																
		2723	01/04/10 A	05/12/20	Construction											
Construction Support and Costs																
		3078	01/04/10 A	06/12/20	Construction											
Construction Utility Contract #1 - MOS & Portal CN-1250																
		505	01/04/10 A	05/23/11 A												
Construction Utility Contract #2 - UMS CN-1251																
		643	01/12/11 A	10/15/12 A												
Construction Tunnels CN-1252																
		1518	06/08/11 A	11/27/17	Construction Tunnels CN-1252											
Construction CN-1300																
		1704	06/03/13 A	09/12/19	Construction CN-1300											
CN-1300 Milestone																
		1627	06/17/13 A	09/12/19	CN-1300 Milestone											
Construction UMS Station P-1253																
		1704	06/17/13 A	06/15/19	Construction UMS Station P-1253											
Construction CTS Station P-1254R																
		1563	06/17/13 A	06/15/19	Construction CTS Station P-1254R											
Construction YBM Station P-1255																
		1651	06/10/13 A	06/17/19	Construction YBM Station P-1255											
Construction STS P-1256																
		1612	06/03/13 A	08/22/19	Construction STS P-1256											
Project Start Up																
		165	06/14/19	11/26/19	Project Start Up											
Unallocated Contingency																
		505	11/27/17	11/26/19	Unallocated Contingency											
Cost Activity Unallocated Contingency (LOE) - 1.7.500.99.090.00 - Contingency																
		505	11/27/17	11/26/19	Cost Activity Unallocated Contingency (LOE)											



View looking down the southbound track inside the Yerba Buena/Moscone station box, with workers having recently removed scaffolding from the platform level of the headhouse (photo right).

Contracts & Construction

Construction Contracts In Progress

Contract 1300: Combined Work Packages 1253, 1254, 1255, 1256

- Contractor: Tutor - Perini Corporation
- Amount: \$847.80 million
- Contract Status: 65.24 % complete construction

Contracts Completed

[See Appendix D](#)

Contract 1250: Moscone Station and Portal Utilities Relocation

Contract 1251: Union Square/Market Street Station Utility Relocation

Contract 1277: Pagoda Theater Site Demolition (Funded separately from the CS Project budget)

Contract 1252: Central Subway Tunneling

Contract SBE Participation (Updated Quarterly) [See Appendix E](#)

Stations, Surface, Track and Systems

Contract 1300 Contractor: Tutor-Perini Corporation

Description of Work

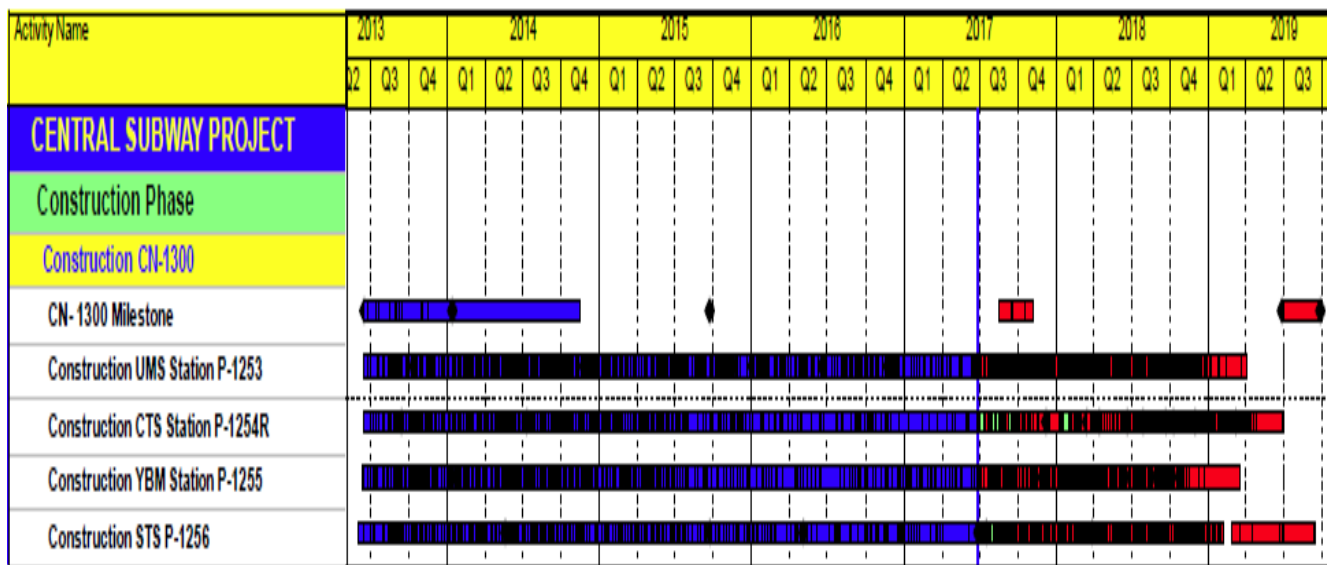
The Contract 1300 scope is to construct the Central Subway's three subway stations, one surface station, construct the 2,000 feet of surface track, and install track and operating systems throughout the new alignment. The separate station and systems work packages are presented in the following pages.

Work includes station finishes, AC and DC substations, elevators, escalators, lighting, emergency ventilation fans, HVAC fire alarm/ suppression/ protection, Cutter Soil Mixing, secant pile bottom up and Sequential Excavation Method construction, settlement monitoring, building protection, connecting to and modifying the BART Powell Street Station, PA, CCTV, signage, installation of fare collection equipment and station start-up and commissioning.

Contract Details	
Contract Awarded:	May 21, 2013
Notice to Proceed:	June 17, 2013
Substantial Completion:	February 28, 2018
Contract Award Value:	\$839,676,400
Modifications to Date (\$):	\$8,121,714
Modifications to Date (Days):	18
Current Contract Value:	\$847,798,114

Budget/Expenditures▲	
Current Budget	\$879,676,400
Other Project Offset Credits	\$3,123,097
Expenditures to Date	\$560,888,845

1300 Summary Schedule



Chinatown Station

Contract 1300 - Work Package 1254R



Description of Work

This Work Package is to construct one subway station. Includes station finishes, AC and DC Traction Power substations elevators, escalators, lighting, emergency ventilation fans, HVAC fire alarm/ suppression/ protection, slurry wall top-down construction, settlement monitoring, building protection, PA, CCTV, signage, installation of fare collection equipment and station start-up and commissioning.

Current Work Status

- Completed excavation and support for Platform Cavern North (PCN) Center Drift (top heading, bench, invert)
- Completed on Cross Over Cavern (COC) Left Side Drift
- 50% completed COC Center Drift (top heading, bench, invert)
- Continued street work (minor), ongoing monitoring and surveying
- 60% completed barrel vault installation for COC (through Reach 1, 2, and 3 of 7)
- Excavated and installed Level 6 Walers and Struts
- Started compensation grouting

Work Expected Next Month

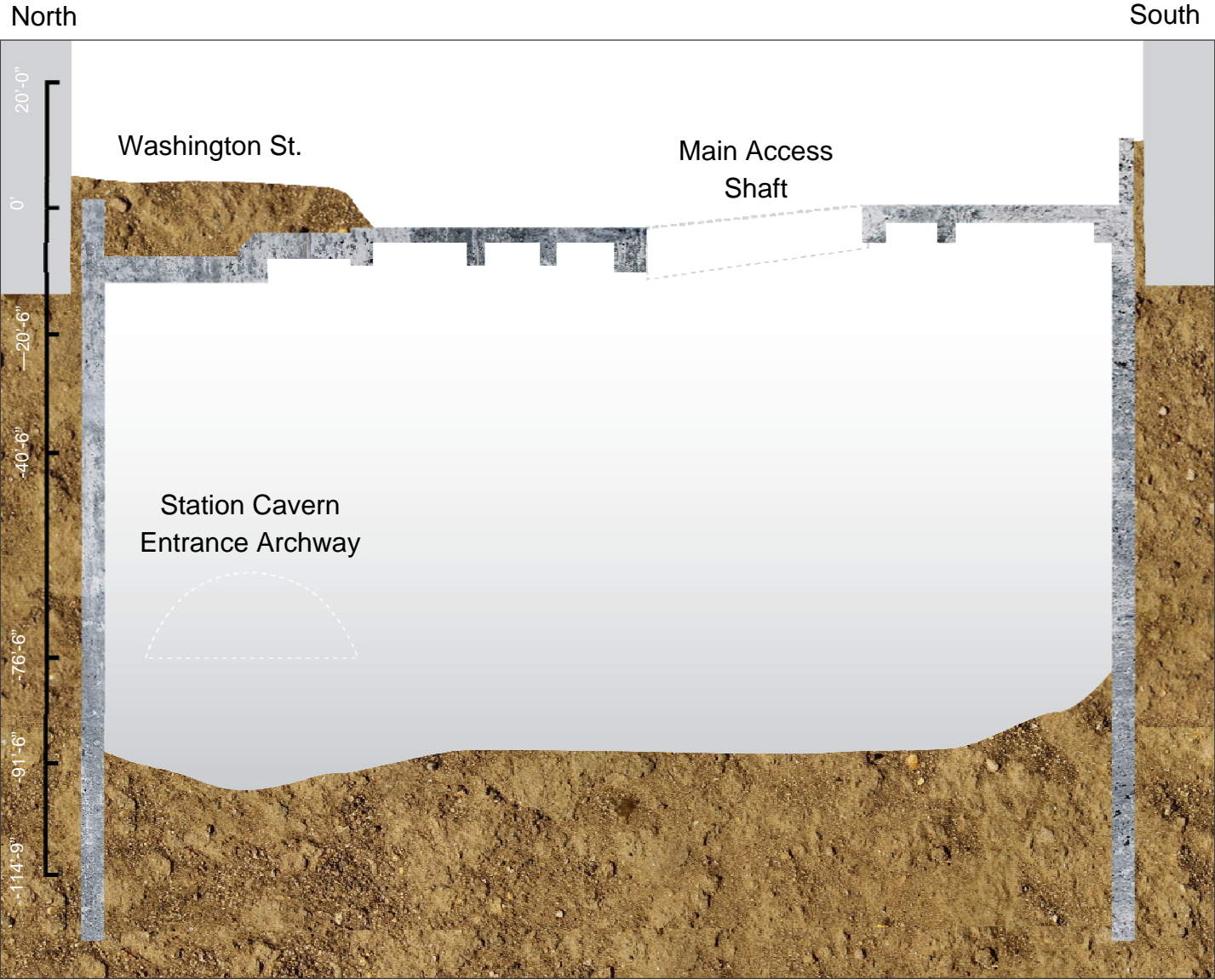
- Begin placing smoothing layer of shotcrete for PCN
- Cross Over Cavern – continue Center Drift Excavation (top heading, bench, and invert)
- Cross Over Cavern – continue Center Drift Excavation (top heading, bench, and invert)
- Complete compensation grouting
- Complete excavate and install Level 6 Walers and Struts
- Place smoothing layer of shotcrete for Platform Cavern North



Three Month Look Ahead

- Head house: Provide logistic support area for tunnel excavation
- Excavate and install Level 7 Walers and Struts
- Complete excavation of Headhouse; prepare and pour Invert Slab to Headhouse
- Continue and complete Cross Over Cavern Center Drift (top heading, bench, and invert)
- Complete removal of all excavated material from Platform Caverns
- Complete removal of temporary shotcrete arches (interior)
- Continue with placing smoothing layer of shotcrete for CCC, PCS and COC

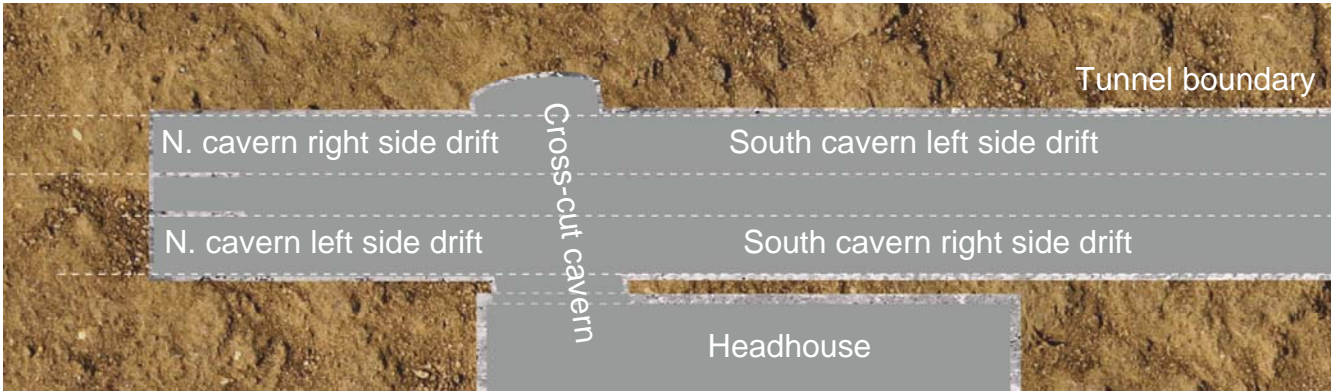
Station Excavation and Construction Progress Section



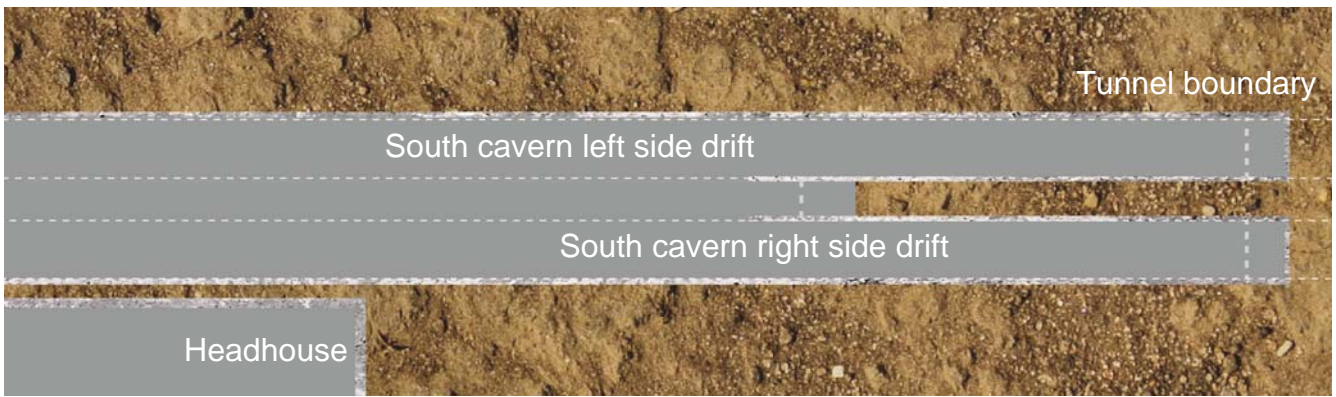
Station Cavern Excavation Progress Plan and Section

North

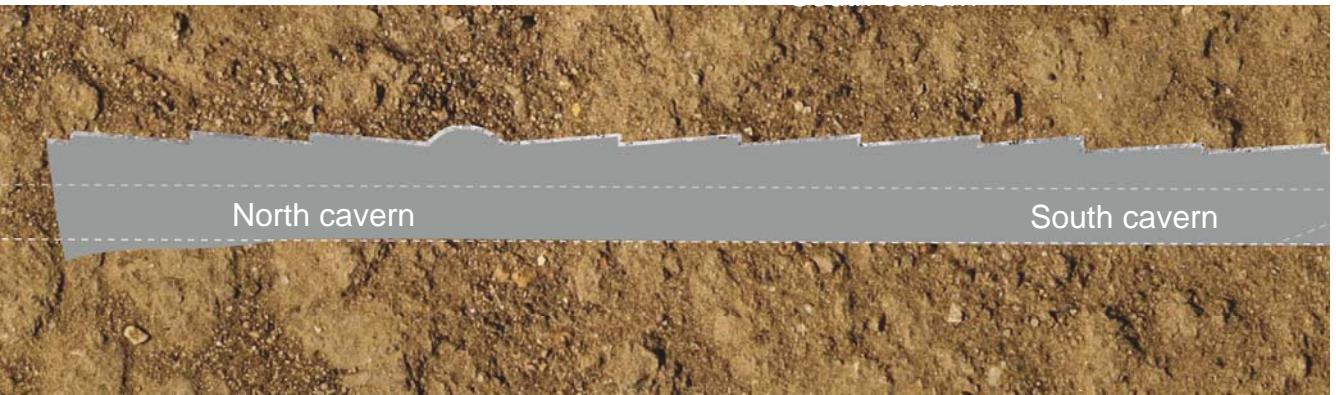
South



Continued below



Continued from above



Continued below



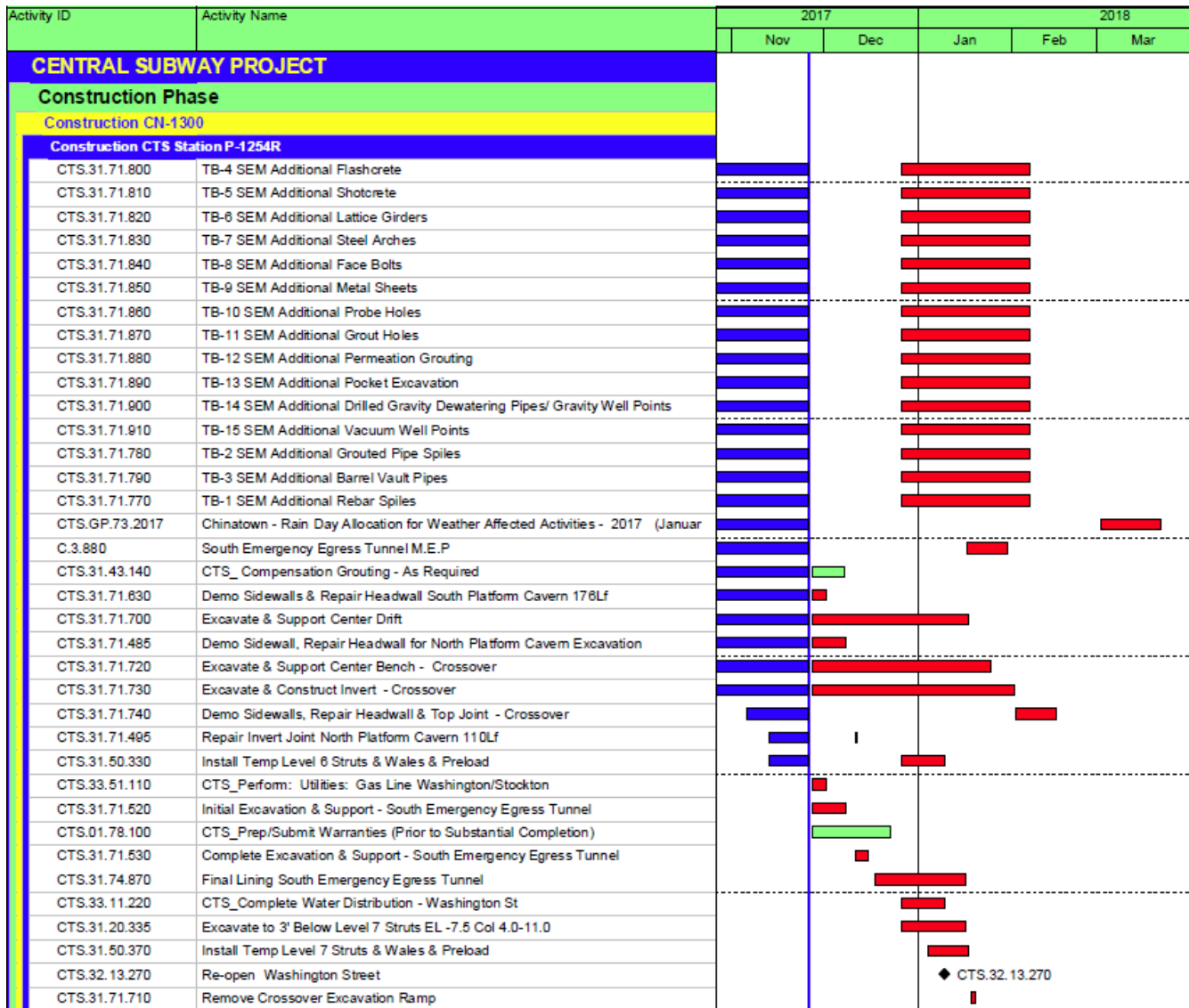
Continued from above

Chinatown Station Construction Status - Continued

Contract Details	
Contract Awarded:	May 21, 2013
Notice to Proceed:	June 17, 2013
Substantial Completion:	February 28, 2018
Contract Award Value:	\$247,567,810
Modifications to Date (\$):	\$2,964,460
Modifications to Date (Days):	18
Current Contract Value:	\$250,532,270

Budget/Expenditures	
Current Budget	\$257,567,810
Other Project Offset Credits	\$75,000
Expenditures to Date	\$161,982,292

CTS Three Month Schedule



Union Square/Market Street Station

Contract 1300 Work Package 1253

Description of Work

This Work Package is to construct one subway station. Includes station finishes, AC and DC Traction Power substations elevators, escalators, lighting, emergency ventilation fans, HVAC fire alarm/ suppression/ protection, slurry wall top-down construction, settlement monitoring, building protection, PA, CCTV, signage, installation of fare collection equipment and station start-up and commissioning.

Current Status This Month

- Platform Station: Continued construction of wale encasements at Platform and Mezzanine levels. Commenced installation of 'Scalloped Walls' at Platform Level
- Emergency exit stairs 3 and 4: Continued F/R/P for walls, stairs, and landings
- North Concourse: Continued HVAC shaft construction including wale encasement and wall construction at Fan Level. F/R/P permanent struts and deck slabs at Concourse level
- South Concourse: Continued escalator ramp walls and slab transition
- Ellis Street: Continued pavement restoration work at Ellis Street
- Stockton Street: Implemented 2017 Holiday Moratorium Winter Walk

Work Expected Next Month

- Platform Station: Continue construction of wale encasements at Platform and Mezzanine Levels. Continue scallop wall constructions at Platform level. Commence Deck installation at Mezzanine Level
- Emergency exit stairs 3 and 4: Complete structural work including surface restoration and utilities
- North Concourse: Continue structural work at Fan level and Concourse level
- South Concourse: Remove shoring and formwork in preparation for South Escalator construction.



- Ellis Street: Complete sidewalks at intersection of Stockton Street
- Stockton Street at Market Street: Complete Sidewalks and Crosswalks

Three Month Look Ahead

- Platform Station: Complete construction of wale encasements at Platform and Mezzanine levels. Complete scallop wall constructions at Platform Level. Complete upper level deck installation.
- North Concourse: Complete concourse level slabs
- South Concourse: Commence CMU walls
- North Entrance: Complete construction of planters at street level, complete secondary steel to north entrance structure

Station Excavation and Construction Progress Section

North

South



Union Square Market Street Station Construction - Continued

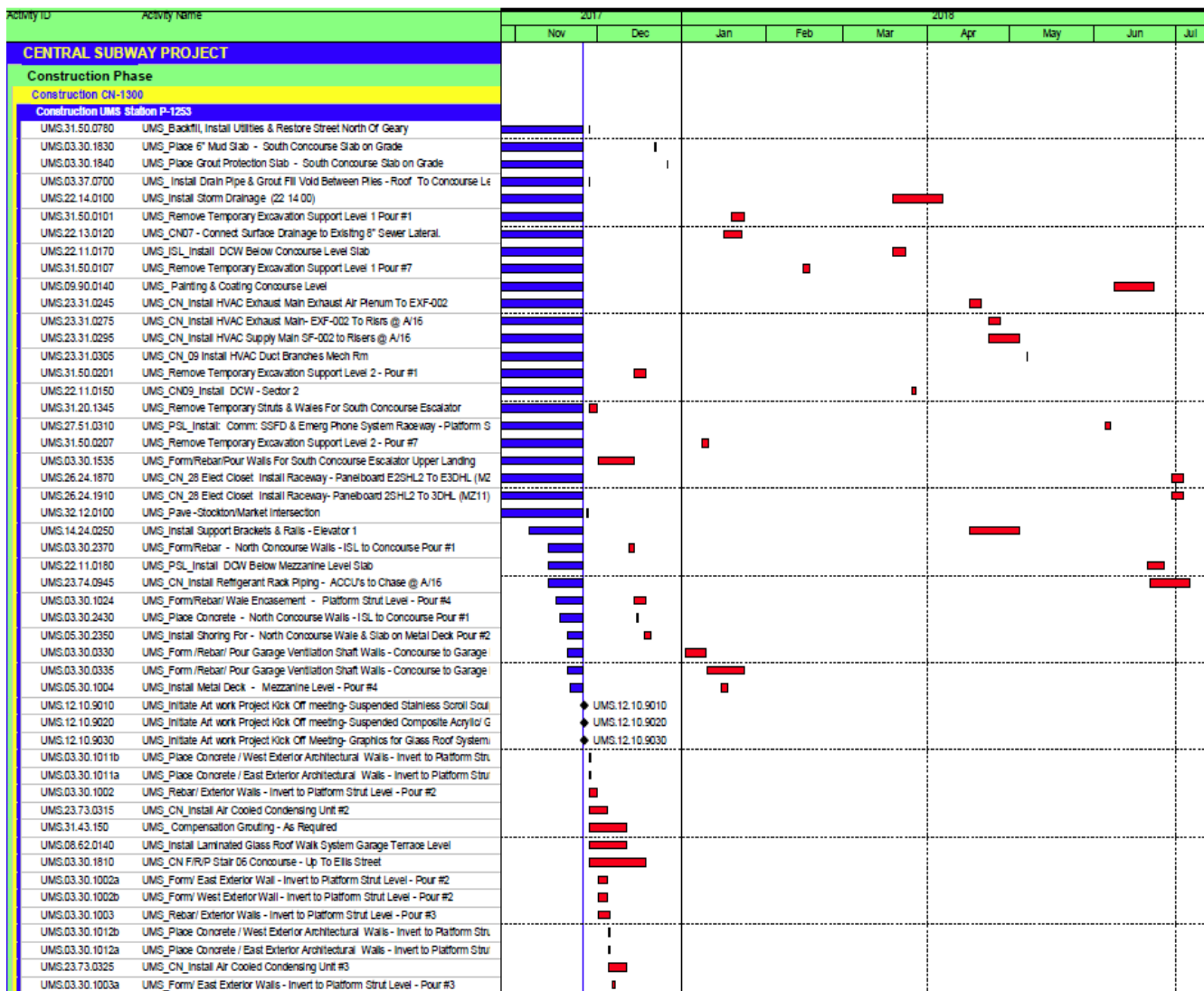
Contract Details

Contract Awarded:	May 21, 2013
Notice to Proceed:	June 17, 2013
Substantial Completion:	February 28, 2018
Contract Award Value:	\$294,030,590
Modifications to Date (\$):	\$2,748,442
Modifications to Date (Days):	18
Current Contract Value:	\$296,779,032

Budget/Expenditures ▲

Current Budget	\$314,030,590
Expenditures to Date	\$217,336,632

UMS Three Month Schedule



Yerba Buena/Moscone Station

Contract 1300 - Work Package 1255

Description of Work

This Work Package is to construct one subway station. Includes station finishes, AC and DC Traction Power substations elevators, escalators, lighting, emergency ventilation fans, HVAC fire alarm/ suppression/ protection, slurry wall top-down construction, settlement monitoring, building protection, PA, CCTV, signage, installation of fare collection equipment and station start-up and commissioning.

Current Status

- Continued to replace the force main and AWSS at 4th & Howard
- Continued to investigate utility conflicts for 36" force main at Howard ongoing
- Continued Stair 4 shoring and excavation
- 80% completed on electrical rough-in on Mezzanine – Station box
- Poured Middle Section East Side topping slab, Mezzanine – Station box
- 60% completed on electrical rough-in on Concourse – Station box
- Poured CN102 and CN104 topping slab in Concourse – Station box
- Began installing Pyrok, Platform level
- Began Rough-in Fire Sprinkler (Headhouse Invert)
- Delivered electrical substation gear
- 25% completed on electrical rough-in on Headhouse-Invert
- Completed F/R/P Headhouse Concourse deck
- Began F/R/P Headhouse-Concourse walls
- Completed F/R/P Stairs 5 & 6 at Headhouse-Concourse
- Completed F/R/P Elevators 3 & 4 walls
- Continued F/R/P Headhouse-Concourse columns
- Began F/R/P Headhouse-Mezzanine deck



Work Expected Next Month

- Continue utility work at intersection of 4th & Folsom and 4th & Howard
- Install street lights at 4th and Clementina
- Install new FH at 4th and Folsom
- Complete Stair 4 shoring and excavation
- F/R/P Stair 4 footing rebar
- Continue working on Stair 4 walls
- Place PG&E and AT&T utilities in Stair 4 area per PCC 159
- Complete electrical on Mezzanine – Station Box
- Pour South end West Side topping slab, Mezzanine – Station box
- Continue electrical rough-in on Concourse, pour Station Concourse topping slab
- Complete installing Pyrok, Platform level
- F/R/P Stair 1 Walls (Station Platform)

Description of Work

This Work Package is to construct one subway station. Includes station finishes, AC and DC Traction Power substations elevators, escalators, lighting, emergency ventilation fans, HVAC fire alarm/ suppression/ protection, slurry wall top-down construction, settlement monitoring, building protection, PA, CCTV, signage, installation of fare collection equipment and station start-up and commissioning.

Work Expected Next Month (continued)

- F/R/P Stair 2 (Station Platform)
- Install Elevators 1 and 2 (Station Platform)
- Install Escalators 1 and 2 (Station Platform)
- Continue Rough-in Fire Sprinkler (Headhouse Invert)
- Pour Headhouse Invert topping slab
- Complete F/R/P Headhouse-Concourse columns
- Complete F/R/P Headhouse-Mezzanine deck

Three Month Look Ahead

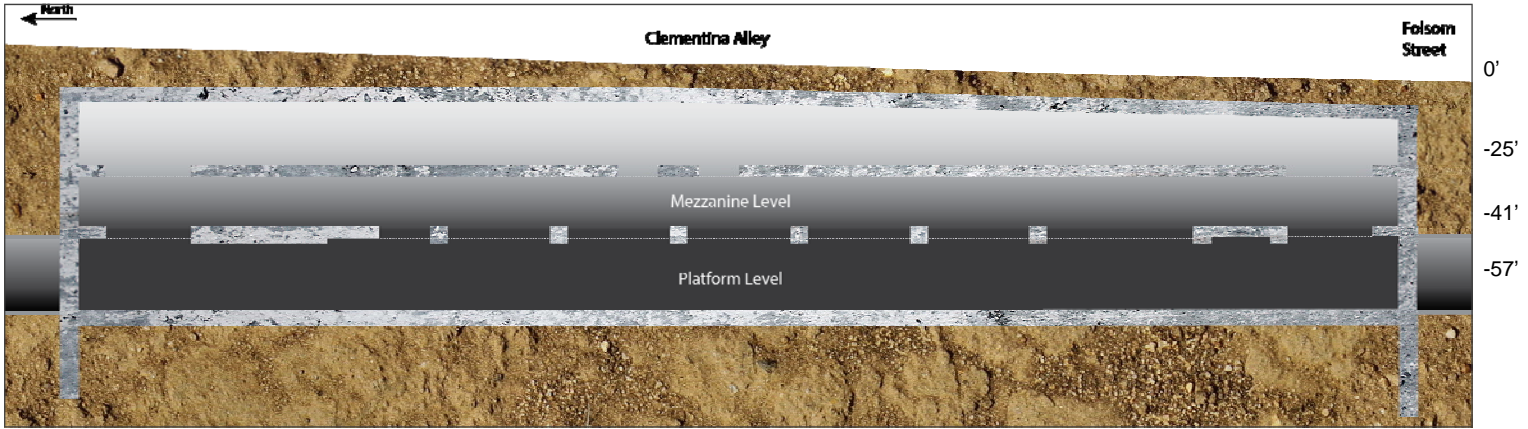
- Construct Mezzanine slab from bottom up within Headhouse
- Start AT&T and PG&E contract work on Folsom
- Continue interior finishes on Mezzanine & Concourse Levels within Station Box
- Continue placement of stairs within Station and Headhouse
- Begin installation of station power electrical vaults on Folsom Street



Station Excavation and Construction Progress Section

North

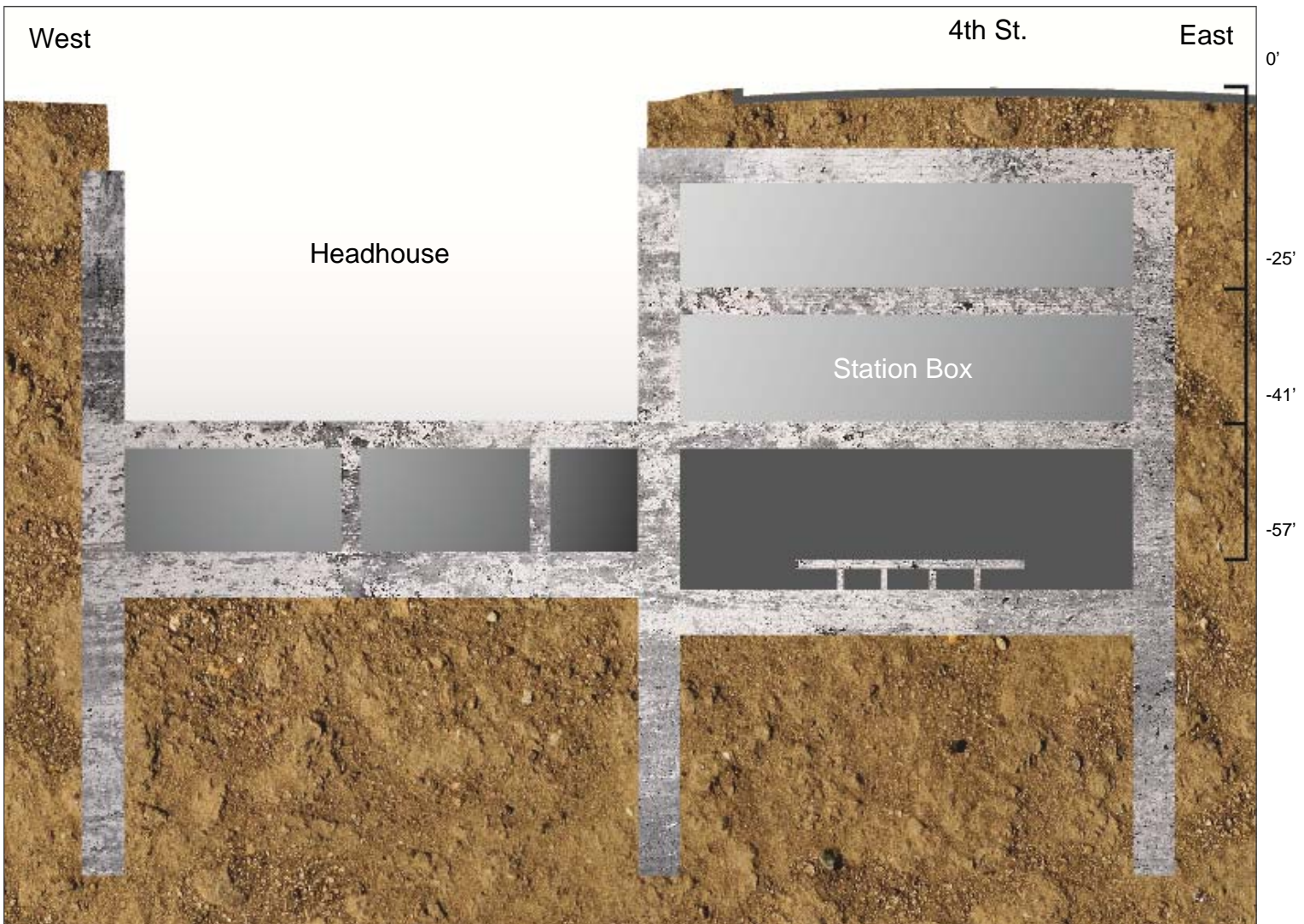
South



West

4th St.

East



Yerba Buena Moscone Station Construction - Continued

Contract Details

Contract Awarded:	May 21, 2013
Notice to Proceed:	June 17, 2013
Substantial Completion:	February 28, 2018
Contract Award Value:	\$158,089,000
Modifications to Date (\$):	\$309,825
Modifications to Date (Days):	18
Current Contract Value:	\$158,398,825

Budget/Expenditures ▲

Current Budget	\$163,089,000
Other Project Offset Credits	\$415,331
Expenditures to Date	\$114,392,383

YBM Three Month Schedule

Activity ID	Activity Name	2017		2018						
		Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
CENTRAL SUBWAY PROJECT										
Construction Phase										
Construction CN-1300										
Construction YBM Station P-1255										
Y.1.620	Open all Traffic- 4th Street									
YBM.07.80.120	Install Fire & Smoke Protection, Mineral Wool, Mezzanine Level (07 80 00)									
YBM.26.05.1076	YBM_PL 207 - Aux Elect Rm: Install - System Ground Bus									
YBM.26.05.1086	YBM_MZ 301 - Aux Elect Rm: Install - System Ground Bus									
YBM.26.05.1096	YBM_CN 320 - Aux Elect Rm: Install - System Ground Bus									
YBM.26.05.1066	YBM_PL 106 - Aux Elect Rm: Install - System Ground Bus									
YBM.05.12.105	Erect/ Plumb/ Weld Structure Steel, Headhouse/ Vent Shaft Structure									
YBM.21.13.315	YBM_MZ Install Fire Protection System Branches & FHC's - Mezzanine Sector 1									
YBM.21.13.335	YBM_MZ Install Fire Protection System Branches & FHC's - Mezzanine Sector 2									
YBM.07.80.110	Install Fire & Smoke Protection, Mineral Wool, Concourse Level (07 80 00)									
YBM.26.11.0940	YBM_IV301 - Main Elect Rm: Install Riser Conduit In Chase To Mezz Mech Rm									
YBM.22.14.190	YBM_CN Install Domestic Water- Concourse Sector 1									
YBM.22.14.200	YBM_CN Install Domestic Water- Concourse Sector 2									
YBM.21.13.395	YBM_CN Install Fire Protection System Branches, Drops & FHC's -Concourse 5									
YBM.21.13.415	YBM_CN Install Fire Protection System Branches, Drops & FHC's -Concourse 5									
YBM.05.52.480	Install Stair #4 Rails from Platform to Mezz Level									
YBM.21.13.455	YBM_PL Install Fire Protection System Branches & Drops -Above Platform Secto									
YBM.09.83.110	Acoustical Cement Plaster Station below Platform walls (09 83 14)									
YBM.21.13.475	YBM_PL Install Fire Protection System Branches & Drops -Above Platform Secto									
YBM.21.13.495	YBM_PL Install Fire Protection Deluge Mains - Under Platform Sector 1									
YBM.21.13.505	YBM_PL Install Fire Protection Deluge Mains - Under Platform Sector 2									
YBM.26.24.1160	YBM_PL 106 - Aux Elect Rm: Install Raceway - Panelboard LCP-1N (Lighting C									
YBM.26.24.1330	YBM_PL 207 - Aux Elect Rm: Install - Panelboard 1SHL (NB/SB Tunnel Lighting									
YBM.26.24.1390	YBM_PL 207 - Aux Elect Rm: Install Raceway - Panelboard E1SHL									
YBM.26.24.1050	YBM_PL 106 - Aux Elect Rm: Install Raceway - Panelboard 1NHL (Public Lighti									
YBM.23.88.280	YBM_MZ_202 - Plenum#1: Install -Tunnel Ventilation Dampers TD-23 & 24									
YBM.26.24.1090	YBM_PL 106 - Aux Elect Rm: Install Raceway - Panelboard E1NHL									
YBM.23.88.290	YBM_MZ_202 - Plenum#1: Install -Tunnel Ventilation Dampers SD-01A & 01B									
YBM.23.88.300	YBM_MZ_202 - Plenum#1: Install -Tunnel Ventilation Dampers TD-21 & 22									
YBM.26.24.1300	YBM_PL 207 - Aux Elect Rm: Install Raceway - Panelboard 1SP1 (Receptacles)									
YBM.26.24.1340	YBM_PL 207 - Aux Elect Rm: Install Raceway - Panelboard 1SHP									
YBM.26.24.1420	YBM_PL 207 - Aux Elect Rm: Install Raceway - Panelboard LCP-1S									
YBM.26.24.1030	YBM_PL 106 - Aux Elect Rm: Install Raceway - Panelboard 1NP									
YBM.26.24.1200	YBM_PL 106 - Aux Elect Rm: Install Raceway - Panelboard E1NP (Receptades)									
YBM.26.24.1230	YBM_PL 106 - Aux Elect Rm: Install Raceway - Panelboard 1NHP									
YBM.26.24.1120	YBM_PL 207 - Aux Elect Rm: Install Raceway - Panelboard E1SP									
YBM.26.56.190	YBM_Install: Elect: Roadway Lighting (26 56 19)									
YBM.21.12.425	YBM_IV Install Fire Suppression System DSP & TSP Mains Under Platform Sect									
YBM.26.24.1440	YBM_MZ 301 - Aux Elect Rm: Install - Emergency Ventilation Panel									
YBM.03.30.1160	F/R/P Concourse Level Columns									
YBM.21.12.415	YBM_IV Install Fire Suppression System DSP & TSP Mains Under Platform Sect									