

CMB Meeting Minutes #173

DATE: June 27, 2014

MEETING DATE: June 11, 2014

LOCATION: 821 Howard St, Main Conference Room

TIME: 3:00 PM

ATTENDEES: J Funghi (JF), R. Redmond, (RR), M. Latch (ML), M. Kobler (MK), S. Tisell (ST), M. Vilcheck,(MV), R. McCarter (RM) S. Moody (SM), B. Lebovitz (BL)

COPIES TO: Attendees: S. Farhangi (SF), M. Henry (MH), E. Stassevitch (ES) A. Hoe (AH), R. Nguyen (RN), A. Clifford, (AC), J. Wang (JW), K. Shah (KS), J. Xia (JX), V. Chow (VC), M. Acosta (MA), L. Zurinaga (LZ), J. Park (JP), B. Ward (BW), S. Jefferis (SJ), S. Espinal (SE), R. Hansen (RH), D. Kuehn (DK)
File No. M544.1.5.0890

REFERENCE Project No. M544.1, Contract No. 149 Task 1-8.02

SUBJECT: Configuration Management Board Meeting # 173 – Rev. No. 0

RECORD OF MEETING *(Italicized text indicates status update of open items)*

ITEM #	DISCUSSION	ACTION BY DUE DATE
1-	S. Tisell and R. Redmond presented the Contractor’s lump sum proposal for PCC 02 UMS Roof Decking changes. The Contractor submitted two options for consideration. Option A - would eliminate the 3" metal deck -16 gauge and adding the 2" metal deck -18 gauge, the finish would add extra concrete for a total amount of \$37K. Option B - would maintain the base bid decking but would increase the stud length with 5" shear studs and eliminate the 3.5" shear studs for a total amount of \$14K, reimbursing SFMTA for the credit difference. The difference quoted is 10 cents vs 45 cents for the cost of the studs (see attached). The CMB agreed with merit for Option B and authorized the CM team to negotiate with the Contractor for a cost not to exceed 125% of the Engineer’s estimate.	
2-	M. Vilcheck presented for discussion CSDG’s memorandum to evaluate the potential to eliminate all compensation grouting at the Yerba Buena/ Moscone Station (YBM) as required in bid items 4 Compensation Grouting & bid item 31 Compensation Grouting Holes at (YBM) for the adjacent 2-story Olivet building which will be demolish to make way for a new 11-story hotel development. As shown in contract drawing BP-101 the TODCO building requires limited mitigation. The Designer is proposing compaction grouting as an alternative methodology for mitigating potential settlement impacts to the remaining unchanged TODCO building. The CMB suggested two separate letters be sent to the Contractor one notifying them of the deletion of the bid item due to the change in the situation after bid and a second letter retracting the PCC for a credit proposal.	
3-	M. Kobler presented for discussion noise and vibration reports for 05/15 thru 05/30/14 as submitted by the Contractor. A thoroughly review by the CM team of spec section 1.08 Construction Noise Controls for the stations contract and the night noise authorization	

ITEM #	DISCUSSION	ACTION BY DUE DATE
	<p>permit was done, to identify the spec requirements and what information was included in the noise permits in hopes of determining how to help the Contractor minimize public complaints. The CMB suggested that we need to document the Contractor is non-compliant with his night time noise permit and recommend some noise mitigation measures. Putting the Contractor on notice that fines will be issued if the compliance issues is not resolved.</p>	
<p>7-06/04/14</p>	<p>M. Kobler and W. Lee presented a draft letter to the Contractor as a good faith effort and follow up letter to CS CN 1300 Letter No. 0157, dated April 15, 2014 which rejects the merit of the Contractor's COR claim that the interim sewer routing of an existing Sewer Line on Washington is outside of the Contract scope. Also as an introduction of the Issue Resolution Ladder (IRL) process as a next step option to escalate the issue. During a previous CMB meeting the Board recommended the CM Team send a letter to the Contractor emphasizing contractual closure of the issues and to remind the Contractor of the language in the contract if they disagree with the City's determination. The CMB agreed with sending the letter revising it to include greater details, i.e. dates, attendees, contractor's responsibility of timeframe for notification and a statement which includes a this issue be elevated to the Sr. Construction Management level if disagreement still exist. <i>Status: 06/11 - As administrative follow up action the evaluation of merit form for COR 01 was presented for review and merit was agreed to by CMB (see attached).</i></p>	


ACTION ITEMS

ITEM #	MTG DATE	MTG ACTION DATE	DESCRIPTION	BIC	DUE DATE	STATUS
8	07/24/13	07/24/13	1252 – Breakdown of Bid Item GE-3	AC/MLe	06/18/14	Open
2	08/14/13	08/14/13	1252 – CMod #8 (PSI strength) – Statement of occurrence post meeting record of approval which overrode CMB direction	AC/MLe	06/18/14	Open
2 & 3	08/28/13	08/28/13	1252 – COR 97 & 98 – gravel encountered action plan from Engineering of Record (DP1)	AC/MLe	06/18/14	Open
5	09/25/13	10/02/13	1300 – PCC CTS 0001 - Contractor Cost Proposal	MK	06/18/14	Open
2	10/09/13	10/09/13	1252 – Design Clause - confirmation of existing contract language in CN 1252 and CN 1300 regarding existing conditions related to utilities	JW/AH	06/18/14	Open
1	10/16/13	10/16/13	1252 – COR 102 - Determine if the Contractor received 1251 as built information before they began operations	AC/MLe	06/18/14	Open
1	10/16/13	10/16/13	1252 – COR 102 - Graphic showing the location of the headwalls control line	AC/MLe	06/18/14	Open
3	10/23/13	10/23/13	1252 – PCC 014 - Contractor Cost Proposal	JW/AC	06/18/14	Open
2	11/06/13	11/06/13	1252 - COR 017 – Notify utility of cost as Form B bill update under CN1250 or CN1251	AC/MLe	06/18/14	Open
2	11/13/13	11/13/13	1300 – Setup a meeting with DT to confirm the use to control traffic	BK	06/18/14	Open
NA	11/13/13	11/13/13	1252 – Confirm who is being billed for the use of PCO's at 5 th St.	AC/MLe	06/18/14	Open
2	11/20/13	11/20/13	1300 – PCC 00X - PGE Traffic Control - Utility verification letter	MK	06/18/14	Open
9	12/11/13	12/11/13	1252 - Trend Log Segment Measuring Frequency line	AC/MLe	06/18/14	Open

			item credit (1.3M)			
2	01/08/14	01/08/14	1300 - PCC - Contractor Cost Proposal - Geoprobos	RR/ST	06/18/14	Open
4	01/08/14	01/08/14	1300 - PCC - Contractor Cost Proposal - Joint Trench Conduits	MK	06/18/14	Open
4	01/15/14	01/15/14	1300 - CTS confirmation from PG&E of cost for concrete encasement of lines	MK	06/18/14	Open
6	06/04/14	06/04/14	1300 - CTS COR 001 - Merit evaluation	MK/WL	06/11/14	CLOSED

Meeting adjourned at 4:05pm

These meeting minutes have been prepared by B. Ward and reviewed by R. Redmond, and are the preparer's interpretation of the *recorded* discussions that took place. If the reader's interpretation differs, please contact the author in writing within four (4) days of receipt of these minutes.

Signed:  [Initials of preparer & reviewer] Date: 6/27/14 [Date review completed]

Meeting Agenda

Project No. M544.1, Contract No. CS-149
Program/Construction Management
Configuration Management Board (CMB) Meeting No. 173
June 11, 2014
3:00pm – 5:00pm
Central Subway Project Office
821 Howard St. 2nd Floor
Main Conference Room

Attendees:

John Funghi		Brad Lebovitz		Luis Zurinaga	
Albert Hoe		Roger Nguyen			
Mark Latch		Richard Redmond			
Eric Stassevitch		Beverly Ward			

1. **1300** - PCC002 – UMS - Roof Decking - *Discussion*
(Previously discussed at CMB Mtg #143)
 - YBM - Deletion of Compensation Grouting - *Discussion*
 - CTS Noise & Vibe Reports 05/15/14 - 05/30/14 - *Discussion*




2. **Trend Log** -

3. **Other Business** -


Meeting Attendance Sheet

Project No. M544.1, Contract No. 149
Program/Construction Management
Configuration Management Board Special Meeting No. 173
June 11, 2014
3:00 p.m. – 5:00 p.m.
 Central Subway Project Office
 821 Howard, 2nd Floor
 Main Conference Room

Deliver Meeting Attendance Sheet with original signatures/initials to Document Control.

NAME	AFFILIATION	PHONE	E-MAIL (for minutes)	INITIALS
Please enter initials if your name is listed below. Please enter name, affiliation, phone number and email address if your name is not listed below.				
Acosta, Mike	SFMTA	(415) 701-5282	Mike.Acosta@sfmta.com	
Chow, Vivian	SFMTA	(415) 701-5264	Vivian.chow@sfmta.com	
Clifford, Alex	CSP	(415) 243-0953	Alex.Clifford@sfmta.com	
Farhangi, Shahnam	SFMTA	(415) 554-0721	Shahnam.Farhangi@sfmta.com	
Funghi, John	SFMTA	(415) 701-4299	John.Funghi@sfmta.com	
Haley, John	SFMTA		John.Haley@sfmta.com	
Henry, Melvyn	SFMTA	(415) 701-5719	Melvyn.Henry@sfmta.com	
Hoe, Albert	SFMTA	(415) 701-4289	Albert.Hoe@sfmta.com	
Jefferis, Scott	SFMTA	(415) 238-4679	Richard.Jefferis@sfmta.com	
Kelly, Jim	SFMTA		Jim.Kelly@sfmta.com	
Kobler, Mike	CSP	(415) 850-4750	Mike.kobler@sfmta.com	
Kuehn, David	STV/PMOC	(510) 464-8053	David.kuehn@stvinc.com	
Latch, Mark	CSP	(415) 701-5294	Mark.Latch@sfmta.com	
Lebovitz, Brad	STV/PMOC	(510) 464-8052	Bradley.lebovitz@stvinc.com	
Nguyen, Roger	SFMTA	(415) 701-4312	Roger.Nguyen@sfmta.com	

central  subway

NAME	AFFILIATION	PHONE	E-MAIL (for minutes)	INITIALS	
Park, Joon	SFMTA	(415) 701-4742	Joon.Park@sfmta.com		
Redmond, Richard	CSP	(Richard.Redmond@sfmta.com	RR	
Shah, Kartik	SFMTA	(415) 701-5678	Kartik.Shah@sfmta.com		
Stassevitch, Eric	CSP	(415) 701-4426	Eric.Stassevitch@sfmta.com		
* Tisell, Steve	CSP		steve.tisell@sfmta.com		
Vilcheck Mark	CSP	(415) 701-4293	Mark.Vilcheck@sfmta.com		
Wang, Jane	SFMTA	(415) 701-4287	Jane.Wang@sfmta.com		
Ward, Beverly	CSP	(415) 701-5291	Beverly.Ward@sfmta.com		
Zurinaga, Luis	SFCTA	(415) 716-6956	Luis.zurinaga@sfcta.org		
Shelagh Moody	CSP	(415) 701-5267	shelahmoody@sfmta.com	SM	
Ryan McCarter	CSP	415 660-5400	ryan.mccarter@sfmta.com	RMC	
		* Steve Tisell was in attendance, but did not sign in.			

ITEM #	DISCUSSION	ACTION BY DUE DATE
7- 09/25/13	1300 – M. Kroncke, Instrumentation Engineer presented a graphical representation which depicting the Performed Pre-Construction Condition Survey locations in-group A and group B buildings CN1252 which will later be taken over by CN 1300. The graph demonstrates the 4 key buildings which would be subjected to the greatest vibration from the demo work. The graphic also demonstrates with red markings (see attached) where the current monitoring instrumentation is installed. The CMB questioned what instrumentation is needed around CTS to do the work safely and what the Programs exposure is in during the demo? The CM team states the Contractor has been requested on several occasions to submit a waiver of what he suggests is a reasonable instrumentation to do the demolition to be reviewed by SFMTA. This item will be brought back to CMB next week for further discussion. 10/02 Due to not having a full Board last week this item was revisited. M. Kroncke reported the Contractor has not submitted an instrumentation schedule but has been installing certain types of equipment. The CMB reviewed the Engineer's recommendation "wish list" of what instrumentation should be installed prior to demolition. The CMB requested a graphic be developed to depict where suggested additional instrumentation should be installed. Also stating the Contractor should be put on notice that a variance will be allowed in scope provided they accept the risk. Status: 10/09 M. Kroncke presented a graphical depiction of what the Engineer recommends is the minimum instrumentation (in red) which should be installed to do the work in the 1252 & 1300 Contracts prior to the demolition. This information will be shared with the Contractor as part of the initial Preparatory Phase meeting. This follow up action is considered CLOSED .	
2-	1252 - S. Wilson requested negotiation position for COR 024 – Force Account Reconciliation cost comparison (see attached) for costs associated with removal of utility structures not shown to exist within the construction limits of the Ellis shaft. Partial merit for the work was agreed to by the CMB at meeting #105 held on 12/05/12 - AGREE – CMB 0135 – Not To Exceed value of \$35,628.22. The CMB requested the confirmation of existing contract language in CN 1252 and CN 1300 regarding existing conditions related to utilities.	
3-	1300 - J. Wang presented information for Union Square/Market Street Station Roof Metal Deck . BSM review of the contract documents identified a deficiency in the detail for the metal deck application. The design did not conform to current code requirements as it relates to slab thickness and stud length. The CMB agreed to issue a PCC directing the Contractor to perform the work using the Option B (see attached).	
4-	The Program Trend/Change Control Log dated 10/09 was reviewed. There are no changes from last week. The log is attached for distribution with these meeting minutes.	

ACTION ITEMS

ITEM #	MTG DATE	MTG ACTION DATE	DESCRIPTION	BIC	DUE DATE	STATUS
8	04/03/13	04/03/13	1252 – DP1 – Design Services hours and cost during construction – DP1 Review	MB	10/09/13	Open
6	07/24/13	07/24/13	1300 – CAD Dwg. Request	RR/AH	10/09/13	CLOSED
8	07/24/13	07/24/13	1252 – Breakdown of Bid Item GE-3	MB	10/09/13	Open
2	08/14/13	08/14/13	1252 – CMod #8 –Statement of occurrence – post meeting record of approval	SW	10/09/13	Open
4	08/14/13	09/18/13	1252 – PCC 10 – Additional Negotiation of PB cost – Director's approval letter	AH	10/09/13	CLOSED

Tutor Perini Corporation
530 Bush St, Suite 302
San Francisco, CA 94108
Tel: 415/638-6052

Tutor Perini
Over a century of excellence

SFMTA - 163

6/4/2014

SF Municipal Transportation Agency
821 Howard Street
2nd Floor
San Francisco, CA 94103
Attn: Richard Redmond

Reference: Third Street Light Rail Program Phase 2 – Central Subway Stations, Surface, Track and Systems, Contract No. 1300, TPC 10176000

Subject: **Proposed Contract Change (PCC#002) – Proposed Scope and Cost – UMS Roof Decking Changes**

Dear Mr. Redmond,

In response to SFMTA's request for pricing for PCC#002 - Modification to UMS Roof Composite transmitted in SFMTA Transmittal No. 0191 on 10/24/13, Tutor Perini Corporation provides a lump sum cost proposal for both Options "A" and "B" per the Engineer's estimate as follows:

TPC provides herewith a lump sum cost proposal for Option "A" for this Proposed Contract Change in the (additive/~~deductive~~) amount of \$37,239.00 (Thirty Seven Thousand Two Hundred Thirty Nine and 00/100 Dollars) per the following scope:

- Includes Pacific Erector's Inc. additional costs for providing 2" metal deck 18 GA with 7/8" x 3.5" shear studs and provides a credit for eliminating 3" metal deck 16 GA with 7/8" x 3.5" shear studs per the Engineer's estimate and their quote summary dated 11/1/13.
- Includes TPC's additional costs for subcontractor Landavazo Brothers Inc. pumping and finishing approximately 485 cy of concrete and provides a credit for eliminating the pumping and finishing of 424 cy of concrete per the Engineer's estimate.
- Includes TPC additional costs for furnishing approximately 485 cy of concrete and providing traffic control during concrete placement and provides a credit for eliminating 424 cy of concrete and corresponding traffic control during concrete placement per the Engineer's estimate.
- Excludes any work not specifically included in attached proposal.

TPC provides herewith a lump sum cost proposal for Option "B" for this Proposed Contract Change in the (additive/~~deductive~~) amount of \$14,336.00 (Fourteen Thousand Three Hundred Thirty Six and 00/100 Dollars) per the following scope:

- Includes Pacific Erector's Inc. additional costs for providing 5" shear studs and provides a credit for eliminating 3.5" shear studs per the Engineer's estimate and their quote summary dated 11/1/13.
- Includes TPC's additional costs for subcontractor Landavazo Brothers Inc. pumping and finishing approximately 424 cy of concrete and provides a credit for eliminating the pumping and finishing of 424 cy of concrete per the Engineer's estimate – No Change.
- Includes TPC additional costs for furnishing approximately 424 cy of concrete and providing traffic control during concrete placement and provides a credit for eliminating 424 cy of concrete and corresponding traffic control during concrete placement per the Engineer's estimate – No Change.
- Excludes any work not specifically included in attached proposal.

In accordance with the above and contract provisions, please provide expedited direction on how to proceed and provide a Contract Modification to us promptly for the additional costs so that delays and payment for this extra work may be mitigated.

If you have any questions, please contact the undersigned at 415-638-6052.

Respectfully,
Tutor Perini Corporation



Patrick Jennings
Project Manager

cc: File, 10-2.007

Tutor Perini Corporation

CCO Scope and Cost Analysis

*SF Municipal Transportation Agency
Third Street Light Rail Program Phase 2
Central Subway Stations, Surface, Track
and Systems
Contract No. 1300, TPC 10176000*

**PCC#002 - UMS Roof Decking Changes (PACERE)
Option "A"**

Index	Change Item	Item No.	Details	Calcs	Total Value
1		10	Base Bid: 3" Metal Deck	\$	(593,571)
2		20	Option "A": 2" Metal Deck	\$	630,810
			TOTAL	\$	37,239

TUTOR PERINI CORPORATION
 SF Municipal Transportation Agency
 Third Street Light Rail Program Phase 2
 Central Subway Stations, Surface, Track and Systems
 Contract No. 1300, TPC 10176000
 (415) 638-0052

PCC#002
 73000007

Proposal Sheet

Year 2014 Edition

RFIs Included:
 Submittals Included:
 RFCs Included:
 EXPIRATION DATE: 5 days from receipt
 Warranties, Retention Withholding,
 Impacts to Minority Goals, and CCIP Impacts
 Preservation of Property Costs Unknown at this Time

DESCRIPTION

PCC#002 - UMS Roof Decking Changes (PACERE) Option "A"

TOTAL COST PROPOSAL: \$ 37,239

ITEM NO.	PROJECT COSTS ITEM DESCRIPTION	QUANTITY	UNIT	LABOR/OTHER RATE	EQUIPMENT RATE	MATERIAL RATE	SPECIALIST UNIT RATE	SUBCONTRACT RATE	TOTAL COST PROPOSAL:					
									TOTAL DIRECT LABOR	TOTAL DIRECT EQUIPMENT	TOTAL DIRECT MATERIAL	TOTAL SPECIALIST	TOTAL DIRECT SUBCONTRACT	TOTAL DIRECT COSTS
	RECAP FROM PRICING SHEET								\$ 142.18	\$ 23.67	\$ 8,849.80	\$ 0.00	\$ 24,213.13	\$ 33,028.79
	Dumpster Pulls		EA											\$ -
	Dust Control		LB											\$ -
	Engineering (@100/hr = 75/hr W/28%mu below)		HRS											\$ -
	Field Design		HRS											\$ -
	First Aid & Safety Items		HRS											\$ -
	Freight Cost		LB											\$ -
	Heavy Duty Scaffold		EA											\$ -
	Install / Remove / Relocate Temporary Stairs		WH											\$ -
	Management Trips to Field		HRS											\$ -
	Misc. & Consumables		LB											\$ -
	Misc. & Fuel Surcharge		LB											\$ -
	Mobilization / Demobilization		HRS											\$ -
	Permits		LB											\$ -
	Portable Scaffold		EA											\$ -
	Postage (\$10/EA)		EA											\$ -
	Procurement		LB											\$ -
	Professional Services		HRS											\$ -
	Quality Control Inspection & Testing		WH											\$ -
	Record Drawing / As-Built		HRS											\$ -
	Rigging / Special Handling		HRS											\$ -
	Sanitation (toilet/sinks/service 250/ea/MO)		MO											\$ -
	Security Services		HRS											\$ -
	Small Tools	0.00%	OF			\$ -					\$ -			\$ -
	Storm Water Pollution Prevention Plan (SWPPP)		LB											\$ -
	Storm-Water Pumping		HRS											\$ -
	Street Sweeper		WH											\$ -
	Temporary Power		HRS											\$ -
	Temporary Storage / Shop		LB											\$ -
	Traffic Control		LB											\$ -
	Utility Charges		LB											\$ -
	SUBTOTAL								\$ 142.18	\$ 23.67	\$ 8,849.80	\$ -	\$ 24,213.13	\$ 33,028.79
	SUPERVISORY PERSONNEL W/10% FEE		HRS						\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	SALES TAX	8.75%	OF	\$ 8,849.80							\$ 756.86			\$ 756.86
	SUBTOTAL													\$ 33,785.65
	MISC EQUIPMENT	0.00%	OF	\$ 142.18						\$ -				\$ -
	INCIDENTAL LABOR COSTS	0.00%	OF	\$ 142.18					\$ -					\$ -
	SUBTOTAL													\$ -
	CONTRACTOR OVERHEAD & PROFIT-ON LABOR	15%	OF	\$ 142.18					\$ 21.33					\$ 21.33
	CONTRACTOR OVERHEAD & PROFIT-ON EQUIPMENT	15%	OF		\$ 23.67					\$ 3.55				\$ 3.55
	CONTRACTOR OVERHEAD & PROFIT-ON MATERIAL	15%	OF			\$ 9,406.66					\$ 1,411.00			\$ 1,411.00
	CONTRACTOR OVERHEAD & PROFIT-ON SPECIALIST	5%	OF				\$ -				\$ -			\$ -
	CONTRACTOR OVERHEAD & PROFIT-ON CONTRACT	0%	OF								\$ -			\$ -
	CONTRACTOR MARKUP ON SUBCONTRACTOR(S)	0%	OF					\$ 24,213.13					\$ 1,210.66	\$ 1,210.66
	SUBTOTAL												\$ 1,210.66	\$ 1,210.66
	BID ITEM ADJUSTMENTS													\$ 36,432.18
	EXCESS LIABILITY COST	1.18%	OF			\$ 36,432.18					\$ 429.55			\$ 429.55
	CONTRACTOR BOND COST	1.04%	OF			\$ 36,432.18					\$ 377.09			\$ 377.09
	<i>Note: 5% Earthquake Insurance for change order work</i>													
	<i>is included herein-Separate pricing is not available</i>													
	TOTAL CHANGE ORDER								\$ 163.51	\$ 27.22	\$ 11,624.29	\$ -	\$ 25,423.79	\$ 37,239

DESCRIPTION

PCC#002 - UMS Roof Decking Changes (PACERE) Option "A"

Pricing Sheet

ITEM #	DESCRIPTION	LABOR	EQUIP	# EA	UNIT	LABOR RATE	EQUIPMENT RATE	MATERIAL RATE	SUBCONTRACT RATE	PERCENT	TOTAL LABOR	TOTAL EQUIPMENT	TOTAL MATERIAL	TOTAL SPECIALIST	TOTAL CONTRACT	TOTAL SUBCONTRACT	\$ TOTAL
Contract Change Notice Number: PCC#002																	
1	10 - Base Bid, 3" Metal Deck A) Pacific Erectors scope of work is installing metal deck and studs; Landavazo pumps and finishes concrete based on 45 cy/hr																
10.10, 10.28, 10.30	PACERE Pacific Erectors PCC-002 dated 11/1/13 - 10.10, 10.20, 10.30			-1	LS				\$202,473.00							(\$202,473.00)	(\$202,473.00)
10.04	6000 psi Concrete			-424	CY			\$141.80					\$60,123.20				(\$60,123.20)
	LANBRO Landavazo Brothers Place & Finish Concrete			-424	CY				\$654.30								(\$277,422.05)
	B) TPC 2 man traffic control crew plus during concrete placement																
	TRAFFIC CONTROL 1 - S. TIME	TRAF1A	TRAFTRC	-8	MH	\$54.02	\$26.90										(\$647.33)
	TRAFFIC CONTROL 1 - O. TIME	TRAF1B	TRAFTRC	-2	MH	\$71.09	\$23.67										(\$189.53)
	TRAFFIC CONTROL 1 - S. TIME	TRAF1A		-8	MH	\$54.02											(\$432.13)
	TRAFFIC CONTROL 1 - O. TIME	TRAF1B		-2	MH	\$71.09											(\$142.18)
	Flashing Arrow Sign Trailer	FARROWT			HR		\$3.30										
	Traffic Cones - A100	TCONES-A		-1	HR		\$8.03										(\$8.03)
	Flag Stand	TFLAGST			HR		\$2.57										
	SUBTOTAL																
2	20 - Option "A", 2" Metal Deck A) Pacific Erectors scope of work is installing metal deck and studs; Landavazo pumps and finishes concrete based on 45 cy/hr																
20.10, 20.26, 20.30	PACERE Pacific Erectors PCC-002 dated 11/1/13 - 20.10, 20.20, 20.30			1	LS				\$186,774.00								\$186,774.00
20.04	6000 psi Concrete			485	CY			\$141.80					\$68,773.00				\$68,773.00
	LANBRO Landavazo Brothers Place & Finish Concrete			485	CY				\$554.30								\$317,334.18
	B) TPC 2 man traffic control crew plus during concrete placement																
	TRAFFIC CONTROL 1 - S. TIME	TRAF1A	TRAFTRC	8	MH	\$54.02	\$26.90										\$647.33
	TRAFFIC CONTROL 1 - O. TIME	TRAF1B	TRAFTRC	3	MH	\$71.09	\$23.67										\$284.29
	TRAFFIC CONTROL 1 - S. TIME	TRAF1A		8	MH	\$54.02											\$432.13
	TRAFFIC CONTROL 1 - O. TIME	TRAF1B		3	MH	\$71.09											\$213.27
	Flashing Arrow Sign Trailer	FARROWT			HR		\$3.30										
	Traffic Cones - A100	TCONES-A		1	HR		\$8.03										\$8.03
	Flag Stand	TFLAGST			HR		\$2.57										
	SUBTOTAL																
	Total For Pricing Sheet										\$142.19	\$23.67	\$6,649.80			\$24,213.13	\$33,028.79

Tutor Perini Corporation

CCO Scope and Cost Analysis

*SF Municipal Transportation Agency
Third Street Light Rail Program Phase 2
Central Subway Stations, Surface, Track
and Systems
Contract No. 1300, TPC 10176000*

**PCC#002 - UMS Roof Decking Changes (PACERE)
Option "B"**

Index	Change Item	Item No.	Details	Calcs	Total Value
1			10 - Base Bid: 3" Metal Deck	\$	(593,571)
2			30 - Option "B": 3" Metal Deck	\$	607,907
			TOTAL	\$	14,336

TUTOR PERINI CORPORATION
 SF Municipal Transportation Agency
 Third Street Light Rail Program Phase 2
 Central Subway Stations, Surface, Track and Systems
 Contract No. 1300, TPC 10176000
 (415) 638-8052

PCC#002
 7300007

Proposal Sheet

Year 2014 Edition

RFIs Included:
 Submittals Included:
 RFCs Included:
 EXPIRATION DATE: 5 days from receipt
 Warranties, Retention Withholding,
 Impacts to Minority Goals, and CCIP Impacts
 Preservation of Property Costs Unknown at this Time

DESCRIPTION

PCC#002 - UMS Roof Decking Changes (PACERE) Option "B"

TOTAL COST PROPOSAL: \$ 14,336

ITEM NO.	PROJECT COSTS ITEM DESCRIPTION	QUANTITY	UNIT	LABOR/OTHER RATE	EQUIPMENT RATE	MATERIAL RATE	SPECIALIST UNIT RATE	SUBCONTRACT RATE	TOTAL COST PROPOSAL:					
									TOTAL DIRECT LABOR	TOTAL DIRECT EQUIPMENT	TOTAL DIRECT MATERIAL	TOTAL SPECIALIST	TOTAL DIRECT SUBCONTRACT	TOTAL DIRECT COSTS
	RECAP FROM PRICING SHEET								\$ (0.00)	\$ 0.00	\$ -	\$ 0.00	\$ 13,358.00	\$ 13,358.00
	Dumpster Pulls		EA											\$ -
	Dust Control		LB											\$ -
	Engineering (@ 100/hr = 75/hr W/28%mu below)		HRB											\$ -
	Field Design		HRB											\$ -
	First Aid & Safety Items		HRB											\$ -
	Freight Cost		LB											\$ -
	Heavy Duty Scaffold		EA											\$ -
	Install / Remove / Relocate Temporary Stairs		MH											\$ -
	Management Trips to Field		HRB											\$ -
	Misc. & Consumables		LB											\$ -
	Misc. & Fuel Surcharge		LB											\$ -
	Mobilization / Demobilization		HRB											\$ -
	Permits		LB											\$ -
	Portable Scaffold		EA											\$ -
	Postage (\$10/EA)		EA											\$ -
	Procurement		LB											\$ -
	Professional Services		HRB											\$ -
	Quality Control Inspection & Testing		MH											\$ -
	Record Drawing / As-Built		HRB											\$ -
	Rigging / Special Handling		HRB											\$ -
	Sanitation (toilet/sinks/service 250/ea/MO)		MO											\$ -
	Security Services		HRB											\$ -
	Small Tools	0.00%	OF			\$ -					\$ -			\$ -
	Storm Water Pollution Prevention Plan (SWPPP)		LB											\$ -
	Storm-Water Pumping		HRB											\$ -
	Street Sweeper		MH											\$ -
	Temporary Power		HRB											\$ -
	Temporary Storage / Shop		LB											\$ -
	Traffic Control		LB											\$ -
	Utility Charges		LB											\$ -
	SUBTOTAL								\$ (0.00)	\$ 0.00	\$ -	\$ -	\$ 13,358.00	\$ 13,358.00
	SUPERVISORY PERSONNEL W/10% FEE		HRB						\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	SALES TAX	8.75%	OF	\$ -							\$ -	\$ -	\$ -	\$ -
	SUBTOTAL													\$ 13,358.00
	MISC EQUIPMENT	0.02%	OF	\$ (0.00)						\$ -				\$ -
	INCIDENTAL LABOR COSTS	0.02%	OF	\$ (0.00)					\$ -					\$ -
	SUBTOTAL													\$ -
	CONTRACTOR OVERHEAD & PROFIT-ON LABOR	15%	OF	\$ (0.00)					\$ -					\$ -
	CONTRACTOR OVERHEAD & PROFIT-ON EQUIPMENT	17%	OF		\$ 0.00					\$ 0.00				\$ 0.00
	CONTRACTOR OVERHEAD & PROFIT-ON MATERIAL	15%	OF			\$ -					\$ -			\$ -
	CONTRACTOR OVERHEAD & PROFIT-ON SPECIALIST	9%	OF				\$ -				\$ -			\$ -
	CONTRACTOR OVERHEAD & PROFIT-ON CONTRACT	8%	OF											\$ -
	CONTRACTOR MARKUP ON SUBCONTRACTOR(S)	5%	OF					\$ 13,358.00					\$ 667.90	\$ 667.90
	SUBTOTAL												\$ 667.90	\$ 667.90
	BID ITEM ADJUSTMENTS													\$ 14,025.90
	EXCESS LIABILITY COST	1.18%	OF		\$ 14,025.90						\$ 165.37			\$ 165.37
	CONTRACTOR BOND COST	1.04%	OF		\$ 14,025.90						\$ 145.17			\$ 145.17
	<i>Note: 5% Earthquake Insurance for change order work</i>													
	<i>is excluded herein-Separate pricing is not available</i>													
	TOTAL CHANGE ORDER								\$ (0.00)	\$ 0.00	\$ 310.54	\$ -	\$ 14,025.90	14,336

TUTOR PERINI CORPORATION
 SF Municipal Transportation Agency
 Street Light Rail Program Phase 2
 Central Subway Stations, Surface, Track and Systems
 Contract No. 1300, TPC 10176000
 (415) 838-6052

Third

FORCE ACCOUNT ANALYSIS COST PROPOSAL FOR THE FOLLOWING TSCO: 73000007

Contract Change Order Number: PCC#002

Notes:
 1) See Notes on Proposal Sheet

DESCRIPTION

PCC#002 - UMS Roof Decking Changes (PACERE) Option "B"

Pricing Sheet

ITEM #	DESCRIPTION	UNIT	QTY	# EA	U	LABOR RATE	EQUIPMENT RATE	MATERIAL RATE	SUBCONTRACT RATE	EM/WH	TOTAL LABOR	TOTAL EQUIPMENT	TOTAL MATERIAL	TOTAL SPECIALIST	TOTAL CONTRACT	TOTAL SUBCONTRACT	\$ TOTAL
Contract Change Notice Number: PCC#002																	
10 - Base Bldg 3" Metal Deck																	
A) Pacific Erectors scope of work is installing metal deck and stairs; Landavezo pumps and finishes concrete based on 45 cy/hr																	
10.10, 10.20, 10.30	PACERE Pacific Erectors PCC-002 dated 11/1/13 - 10.10, 10.20, 10.30		-1		LS				\$202,473.00							(\$202,473.00)	(\$202,473.00)
10.04	8000 psi Concrete		-424		CY			\$141.80					(\$60,123.20)			(\$60,123.20)	(\$60,123.20)
	LANDRO Landavezo Brothers Place & Finish Concrete		-424		CY				\$654.30							(\$277,422.05)	(\$277,422.05)
B) TPC 2 man traffic control crew plus during concrete placement																	
	TRAFFIC CONTROL 1 - S. TIME	TRAF1A	TRAFTCR	-3	MH	\$54.02	\$26.90				(\$432.13)	(\$215.20)					(\$647.33)
	TRAFFIC CONTROL 1 - O. TIME	TRAF1B	TRAFTCR	-2	MH	\$71.09	\$23.67				(\$142.18)	(\$47.34)					(\$189.53)
	TRAFFIC CONTROL 1 - S. TIME	TRAF1A		-4	MH	\$54.02					(\$432.13)						(\$432.13)
	TRAFFIC CONTROL 1 - O. TIME	TRAF1B		-2	MH	\$71.09					(\$142.18)						(\$142.18)
us	Flashing Arrow Sign Trailer	FARROWT			HR		\$3.39										
	Traffic Cones - A100	TCONES-A		-1	HR		\$8.03					(\$8.03)					(\$8.03)
us	Flag Stand	TFLAGST			HR		\$2.57										
SUBTOTAL																	
20 - Option "B": 3" Metal Deck																	
A) Pacific Erectors scope of work is installing metal deck and stairs; Landavezo pumps and finishes concrete based on 45 cy/hr																	
30.10, 30.20, 30.30	PACERE Pacific Erectors PCC-002 dated 11/1/13 - 30.10, 30.20, 30.30		1		LS				\$215,831.00							\$215,831.00	\$215,831.00
30.04	8000 psi Concrete		424		CY			\$141.80					(\$60,123.20)			(\$60,123.20)	(\$60,123.20)
	LANDRO Landavezo Brothers Place & Finish Concrete		424		CY				\$654.30							(\$277,422.05)	(\$277,422.05)
B) TPC 2 man traffic control crew plus during concrete placement																	
	TRAFFIC CONTROL 1 - S. TIME	TRAF1A	TRAFTCR	3	MH	\$54.02	\$26.90				\$432.13	\$215.20					\$647.33
	TRAFFIC CONTROL 1 - O. TIME	TRAF1B	TRAFTCR	2	MH	\$71.09	\$23.67				\$142.18	\$47.34					\$189.53
	TRAFFIC CONTROL 1 - S. TIME	TRAF1A		4	MH	\$54.02					\$432.13						\$432.13
	TRAFFIC CONTROL 1 - O. TIME	TRAF1B		2	MH	\$71.09					\$142.18						\$142.18
us	Flashing Arrow Sign Trailer	FARROWT			HR		\$3.39										
	Traffic Cones - A100	TCONES-A		1	HR		\$8.03					\$8.03					\$8.03
us	Flag Stand	TFLAGST			HR		\$2.57										
SUBTOTAL																	
Total For Pricing Sheet											(\$0.00)	\$0.00					\$13,358.00

Pacific Erectors, Inc.
PCC-002
11/1/2013

UMS Station:
Roof Metal Deck Estimate:

Contract No. 1300 - UMS
10/23/13

Item	Description	Quant.	Unit	Man Hrs	Equip. Hrs	Labor Rate	Equip. Rent/Hr	Perm.Matl. Rate	Const.Matl. Rate	Subc. Rate	Total Labor	Total Eq.Rent	Total Perm.Matl.	Total Const.Matl.	Total Subc.	Total Cost
Base Bid:																
10	3" Mtl. Deck:															
10.10	3" Deck 16 GA	39,241	SF	490	245	\$109.62	\$28.00	\$2.10	\$0.00	\$0.00	53713.8	6860	82406.1	0	0	
10.20	7/8" x 3.5" Shear Studs	19,620	EA	245	123	\$109.62	\$42.00	\$1.40	\$0.00	\$0.00	26856.9	5166	27468	0	0	
10.30	6000 psi Concrete	424	CY													
Total Base Bid:											\$80,571	\$12,026	\$109,874	\$0	\$0	\$202,471
Option "A"																
20	2" Mtl. Deck:															
20.10	2" Deck 18 GA	39,241	SF	490	245	\$109.62	\$28.00	\$1.70	\$0.00	\$0.00	53713.8	6860	66709.7	\$0	\$0	
20.2	7/8" x 3.5" Shear Studs	19,620	EA	245	123	\$109.62	\$42.00	\$1.40	\$0.00	\$0.00	26856.9	5166	27468	\$0	\$0	
20.30	6000 psi Concrete	485	CY													
Total Option "A":											\$80,571	\$12,026	\$94,178	\$0	\$0	\$186,774
Option "B"																
30	3" Mtl. Deck:															
30.10	3" Deck 16 GA	39,241	SF	490	245	\$109.62	\$28.00	\$2.10	\$0.00	\$0.00	53713.8	6860	82406.1	\$0	\$0	
30.20	7/8" x 5" Shear Studs	19,620	EA	280	140	\$109.62	\$42.00	\$1.85	\$0.00	\$0.00	30693.6	5880	36297	\$0	\$0	
30.30	6000 psi Concrete	424	CY													
Total Option "B":											\$84,407	\$12,740	\$118,703	\$0	\$0	\$215,851

Connecting people. Connecting Communities.

TITLE: Modification to UMS Roof Composite
PROJECT: Stations, Surface, Track & Systems
TO: Attn: Patrick Jennings
Tutor Perini Corp
15901 Olden Street
Sylmar, CA 91342
Phone: 510-665-3114

DATE: 10/24/2013
CONTRACT NO: CN1300
PACKAGE: UMS

DESCRIPTION OF PROPOSAL

Description of PCC: At UMS roof, replace 3" high, 16 gauge composite deck with 2" high, 18 gauge composite deck; overall slab thickness remains 6 inches. Alternatively, at UMS roof, replace 7/8" x 3 1/2" high studs with 7/8" x 5" high studs; overall slab thickness remains 6 inches. Contractor to price both options. SFMTA will issue CMod based on the most cost-effective option.

Location/Station: UMS Station Roof Level; from CTL Sta 128+91.11 to CTL Sta 135+77.825 and from ELL Sta 135+77.825 to ELL Sta 138+59.934.

Spec. Ref.:
03 05 15.53 (Portland Cement Concrete)
03 30 00 (Cast-in-Place Concrete)
05 12 00.53 (studs)
05 30 00 (steel decking)

Reference Drawing Nos.: Contract 1253 Drawings ST-112 through ST-116, ST-729

Attachments: SK-PCC-0002-ST-729

The Contractor shall submit a cost proposal and time extension proposal in accordance with General Provisions Section Article 6 and Article 7. Please structure your Cost Proposal based on the format contained in the Cost Proposal Format Attachment.

APPROVAL:

By: _____
Patrick Jennings

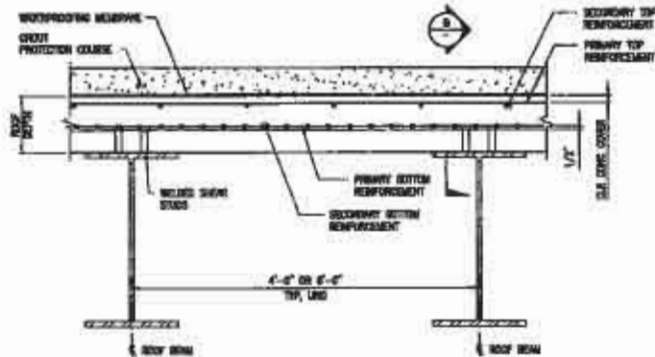
By: _____
Richard Redmond

Date: _____

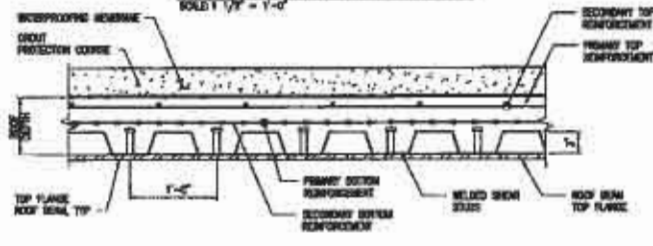
Date: _____



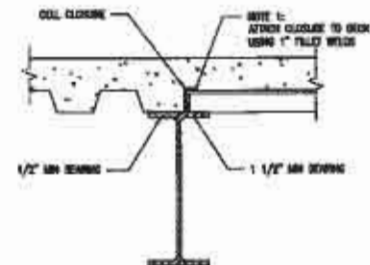
SENSITIVE SECURITY INFORMATION



TYPICAL ROOF DECK SLAB DETAIL
SCALE 1/2" = 1'-0"



SECTION B
SCALE 1/2" = 1'-0"



ROOF DECK SLAB WITH CHANGE IN DIRECTION
SCALE 1/2" = 1'-0"

COMPOSITE ROOF DECK SLAB SCHEDULE

SLAB	DEPTH (IN)	CONCRETE REINFORCEMENT		CONC COVER	STEEL DECK	
		TOP	BOTTOM		WAKE	SIZE
ROOF DECK	6	PRIMARY	2 @ 12"	20 x 8"	3/4"	2 x 12"
		SECONDARY	2 @ 12"	20 x 8"		

Handwritten notes:
10
2' x 12"

NOTES:

1. PLEASE REFER TO DRAWING ST-801 FOR STRUCTURAL STEEL DETAILS.
2. ALL LOADS PROVIDED ARE UNFD FACTORED LOADS IN KIPS AND FEET.
3. FOR STRUCTURAL NOTES SEE SHEET ST-801.

ROOF FRAMING SCHEDULE

STRUCTURAL MEMBERS		EAST-NORTH-TOP BEAM AND COLUMN MOMENTS AND SHEARS UNFD FACTORED LOADS IN KIPS AND FEET						7/8" x 3 1/2" WELDED SHEAR STUDS	CAMBER (IN)	DETAILED REMARKS	
BEAM MARK	BEAM SHAPE	M ₂	M ₃	M ₄	SV ₂	SV ₃	SV ₄	SPACING			
BEAM 1	BM 8 x 84	-	-	-	-	-	-	171	2 @ 12"	-	
BEAM 2	BM 8 x 84	-	-	-	-	-	-	122	2 @ 12"	-	
BEAM 3	BM 7 x 120	-	-	-	-	-	-	135	2 @ 12"	-	
BEAM 4	BM 8 x 141	-	-	-	-	-	-	240	2 @ 12"	1.0	
BEAM 5	BM 8 x 201	-	-	-	-	-	-	388	2 @ 12"	-	
BEAM 6	BM 8 x 210	-	-	-	-	-	-	378	2 @ 12"	-	
BEAM 7	BM 7 x 130	-	-	-	-	-	-	150	2 @ 12"	-	
BEAM 8	BM 8 x 148	-	-	-	-	-	-	244	2 @ 12"	-	
BEAM 9	BM 8 x 148	-	-	-	-	-	-	228	2 @ 12"	1.0	
BEAM 10	BM 8 x 148	-	-	-	-	-	-	240	2 @ 12"	1.0	1' x 4.5" STUDS
BEAM 11	BM 8 x 84	-	-	-	-	-	-	233	2 @ 12"	-	
BEAM 12	BM 8 x 84	-	-	-	-	-	-	159	2 @ 12"	-	
BEAM 13	BM 8 x 228	-	-	-	-	-	-	551	2 @ 12"	1.0	FL = 79 BS
BEAM 14	BM 8 x 120	-	-	-	-	-	-	188	2 @ 12"	-	
BEAM 15	BM 8 x 120	-	-	-	-	-	-	287	2 @ 12"	-	
BEAM 16	BM 8 x 184	-	-	-	-	-	-	413	2 @ 12"	-	
BEAM 17	BM 8 x 84	-	-	-	-	-	-	144	2 @ 12"	-	
BEAM 18	BM 8 x 114	-	-	-	-	-	-	306	4 @ 12"	-	
BEAM 19	BM 8 x 30	-	-	-	-	-	-	86	2 @ 12"	-	
BEAM 20	BM 8 x 30	-	-	-	-	-	-	109	4 @ 12"	-	
BEAM 21	BM 8 x 120	-	-	-	-	-	-	159	4 @ 12"	-	
BEAM 22	BM 8 x 140	-	-	-	-	-	-	201	2 @ 12"	-	
BEAM 23	BM 8 x 140	-	-	-	-	-	-	228	2 @ 12"	-	
BEAM 24	BM 8 x 30	-	-	-	-	-	-	35	2 @ 12"	-	
BEAM 25	BM 8 x 184	-	-	-	-	-	-	363	2 @ 12"	-	
BEAM 26	BM 8 x 30	-	-	-	-	-	-	110	2 @ 12"	-	
BEAM 27	BM 8 x 84	-	-	-	-	-	-	128	2 @ 12"	-	
BEAM 28	BM 8 x 210	-	-	-	-	-	-	447	4 @ 12"	1.0	
BEAM 29	BM 8 x 140	-	-	-	-	-	-	159	4 @ 12"	-	
BEAM 30	BM 8 x 140	-	-	-	-	-	-	204	2 @ 12"	-	
BEAM 31	BM 8 x 140	-	-	-	-	-	-	138	2 @ 12"	-	
BEAM 32	BM 8 x 30	-	-	-	-	-	-	102	-	-	W/F BEAM CIVITY
BEAM 33	BM 8 x 120	-	-	-	-	-	-	-	-	-	W/F BEAM CIVITY
BEAM 34	BM 8 x 84	-	-	-	-	-	-	51	-	-	
BEAM 35	BM 8 x 120	-	-	-	-	-	-	201	-	-	
BEAM 36	BM 8 x 84	-	-	-	-	-	-	130	-	-	
BEAM 37	BM 8 x 84	-	-	-	-	-	-	80	-	-	



I:\working\0444\1\Drawings\0444\05\0505-01\33\Sheet\SLAB\STRUCTURAL\04_STRUCT\04_1330303030729.dwg
 Saved: Thu Feb 23, 2017 - 2:08 pm 57-778 ROOF FRAMING SCHEDULE AND DETAILS
 I:\working\0444\1\Drawings\0444\05\0505-01\33\Sheet\SLAB\STRUCTURAL\04_STRUCT\04_1330303030729.dwg

				1253 CL-18649
				STRUCTURAL ROOF FRAMING SCHEDULE AND DETAILS

CONFORMED

UMS Station:
Roof/Metal Deck Estimate

Contract No. 1300-UMS
10/23/13

Item	Description	Quant	Unit	Man Hrs	Equip. Hrs	Labor Rate	Equip. Rent/Hr	Perm.Matl. Rate	Const.Matl. Rate	Subc. Rate	Total Labor	Total Eq.Rent	Total Perm.Matl.	Total Const.Matl.	Total Subc.	Total Cost
Base Bid:																
10	3" Mtl. Deck															
10.10	3" Deck 16 GA	39,241	SF													
10.20	7/8" x 3.5" Shear Studs	19,620	EA													
10.30	6000 psi Concrete	424	CY													
Total Base Bid:																
Option "A":																
20	2" Mtl. Deck															
20.10	2" Deck 18 GA	39,241	SF													
20.2	7/8" x 3.5" Shear Studs	19,620	EA													
20.30	6000 psi Concrete	485	CY													
Total Option "A":																
Option "B":																
30	3" Mtl. Deck															
30.10	3" Deck 16 GA	39,241	SF													
30.20	7/8" x 5" Shear Studs	19,620	EA													
30.30	6000 psi Concrete	424	CY													
Total Option "B":																

Central Subway Project

TRANSMITTAL

No. 00191

PROJECT: Stations, Surface, Track & Systems

DATE: 10/24/2013

TO: Tutor Perini Corp
15901 Olden Street
Sylmar, CA 91342

REF: PCC-002 Modification to UMS
Roof Composite

ATTN: Patrick Jennings

WE ARE SENDING:	SUBMITTED FOR:	ACTION TAKEN:
<input type="checkbox"/> Shop Drawings	<input type="checkbox"/> Approval	<input type="checkbox"/> Approved as Submitted
<input type="checkbox"/> Letter	<input type="checkbox"/> Your Use	<input type="checkbox"/> Approved as Noted
<input type="checkbox"/> Prints	<input type="checkbox"/> As Requested	<input type="checkbox"/> Returned After Loan
<input type="checkbox"/> Change Order	<input checked="" type="checkbox"/> Review and Comment	<input type="checkbox"/> Resubmit
<input type="checkbox"/> Plans		<input type="checkbox"/> Submit
<input type="checkbox"/> Samples	SENT VIA:	<input type="checkbox"/> Returned
<input type="checkbox"/> Specifications	<input checked="" type="checkbox"/> Attached	<input type="checkbox"/> Returned for Corrections
<input checked="" type="checkbox"/> Other: Proposed Change Order	<input type="checkbox"/> Separate Cover Via: Mail	<input checked="" type="checkbox"/> Due Date: 11/7/2013

ITEM	PACKAGE	SUBMITTAL	DRAWING	REV.	ITEM NO.	COPIES	DATE	DESCRIPTION	STATUS
PCO					1	1	10/24/2013	PCC-0002: Modification to UMS Roof Composite	NEW

Remarks: Pat,

Please see attached PCC-002 Modification to UMS Roof Composite.

CC:

**Yerba Buena / Moscone Street Station
Deletion of Compensation Grouting**

June 9, 2014

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1. PURPOSE OF THIS MEMORANDUM

The purpose of this memorandum is to evaluate the potential to eliminate all compensation grouting at YBM Station represented by Bid Items BI-4 and BI-31, and to propose alternative means for mitigating potential settlement impacts to adjacent buildings due to YBM Station excavation.

2. BACKGROUND

2.1 BUILDING SETTLEMENT ANALYSIS

During the Preliminary Engineering phase, an assessment of settlement effects due to tunneling and underground station excavation was undertaken on the buildings and selected utilities along the project alignment; the results were presented in a report entitled *Effects of Central Subway Underground Construction on Existing Structures*, May 11, 2009.

During the Final Design phase, calculations were prepared for each of the seven buildings adjacent to YBM Station, based on the updated final design of YBM Station, which resulted in the following recommendations for protection of each of the buildings adjacent to YBM Station:

Building	Settlement (in.)			Angular Distortion			Damage Class	Recommendation
	Δ_{TUNNEL}	$\Delta_{STATION}$	Δ_{TOTAL}	β_{TUNNEL}	$\beta_{STATION}$	β_{TOTAL}		
3733-008	0.26	0.96	1.22	.00017	.00100	.00117	Slight	Mitigate ¹
3733-014	0.00	0.72	0.72	.00000	.00050	.00050	Very Slight	Repair ²
3733-105	0.00	0.79	0.79	.00000	.00100	.00100	Slight	Repair ²
3733-108	0.35	1.58	1.93	.00020	.00100	.00120	Slight	Mitigate ¹
3733-109	0.01	0.56	0.57	.00001	.00100	.00101	Slight	Repair ²
3752-001	0.09	0.86	0.95	.00016	.00100	.00116	Slight	Repair ²
3734-091	0.00	0.72	0.72	.00000	.00100	.00100	Slight	Repair ²

¹ Mitigate – use sub-vertical compensation grouting between the slurry wall and adjacent building foundations to compensate movement of soil between the wall and building foundations.

² Repair – allow the building settlement and potential damage to occur, but repair the damages of the buildings at the end of the construction.

The results of these calculations and evaluations include some inherent uncertainties, which are mainly associated with:

- The empirical approaches used; specifically, it is assumed that the buildings follow the free-field ground movement, and building stiffness and soil-structure interaction were not considered, which typically yields results on the conservative side.
- The estimated ground loss parameters, which are primarily dependent upon the actual TBM operations and tunnel construction sequences.
- The actual settlement ratio for station excavation, which will be affected by the construction sequences and workmanship.

Because of the uncertainties involved, the actual building effects may deviate from the calculations; nevertheless, the calculations provide the best estimate of the anticipated building effects.

2.2 CURRENT CONSTRUCTION CONTRACT REQUIREMENTS

Contract 1255 Drawings BP-101 and BP-102 provides a conceptual layout of the subvertical tube-a-manchette (TAM) pipes to be used for compensation grouting at Buildings 3733-008 and 3733-108, and the minimum grouting area to be stabilized with compensation grouting. This work is represented by Bid Items BI-4 and BI-31.

Specification Section 31 09 15, Structural Instrumentation and Monitoring, identifies the remaining five buildings as Group B buildings and specifies requirements for evaluation, instrumentation and monitoring

of these buildings. An allowance (YBM Allowance Item 8) has been established for repair of Group B buildings where allowable deformation tolerances (0.75-inch total settlement, 1/400 angular distortion) have not been exceeded.

2.3 RECENT DEVELOPMENTS

Subsequent to award of Contract 1300, SFMTA was made aware that the existing 2-story building located on Block 3733, Lot 008 is being demolished to make way for construction of a new 11-story (plus penthouse) hotel. The schedule for demolition and construction at this site is in flux relative to YBM Station excavation; however, it is likely that the 2-story building will be demolished sometime this summer. (The building has been vacated and a demolition permit has been issued.) Consequently, the evaluation of the potential settlement effects on the 2-story building located on Block 3733, Lot 008 are no longer relevant. Instead, the potential settlement effects on the proposed 11-story hotel at this site due to station excavation should be considered. Similarly, in light of observed settlements during excavation of the Launch Box and during tunneling in the vicinity of YBM Station under Contract 1252, reconsideration of the method used for mitigation of potential settlement effects on Building 3733-108 due to station excavation is warranted.

3. RE-EVALUATION OF SETTLEMENT EFFECTS

3.1 PROPOSED 11-STORY HOTEL DEVELOPMENT AT BLOCK 3733, LOT 008

Information from the hotel developer indicates that the structural foundations for the hotel will consist of pile caps over 24-inch diameter auger-cast piles embedded 60 to 70 feet below grade. The base of the YBM Station is at El. -58.42' +/- adjacent to the hotel site, or approximately 70 feet below ground surface.

The empirical correlation used in estimating settlements is published by Cough and O'Rourke (1990). This methodology assumes that ground surface settlements are proportional to the volume of ground displaced across the excavation support wall boundary as a result of wall displacements. Only the soil depth between the bottom of the building foundation and the bottom of excavation (i.e., the actual excavation depth) contributes to building settlements. To account for the effect of pile foundations on building settlement, the calculations were performed by considering an "equivalent foundation depth" for the building equal to two-thirds of the depth of the pile tip. Considering the worst-case scenario (proposed 11-story hotel is constructed prior to station excavation), taking into consideration an equivalent foundation depth of $(2/3)(60 \text{ feet}) = 40 \text{ feet}$, and recognizing that the new hotel structure is not affected by settlement due to tunneling, the revised estimated unmitigated settlement effects are summarized below:

Building	Settlement (in.)	Angular Distortion	Damage Class	Recommendation
	Δ_{STATION}	β_{STATION}		
3733-008	0.70	.00100	Slight	Repair

3.2 BUILDING 3733-108 (TODCO BUILDING)

The conditions for Building 3733-108 remain unchanged; consequently, the estimated unmitigated settlement due to station excavation remains the same and mitigation of building settlement is recommended. However, since Building 3733-108 is now the only building to be mitigated at YBM Station and, given the limited extent of mitigation required (represented by the shading on Contract 1255 Drawing BP-101), reassessment of the risk of settlement and re-evaluation of the methodology for mitigation is warranted.

3.2.1 Factors to Consider in Risk Assessment

Observations during Construction under Contract 1252

Observed Settlement versus Estimated Settlement due to Launch Box Excavation: While such observations do not factor into the quantitative analysis of settlement due to YBM Station excavation, it is worth noting that the observed settlement due to Launch Box excavation was approximately 0.3 inch, whereas the estimated settlement was minimum 0.7 inch.

Observed Settlement versus Estimated Settlement due to Tunneling: The observed settlement due to Tunneling in the vicinity of Building 3733-108 was 0.15 inch, whereas the estimated settlement was 0.35 inch. This difference of 0.20 inch factors into the quantitative analysis of settlement due to tunneling, the total estimated settlement is such that the recommendation for mitigation remains unchanged.

Underpinning of Building 3733 as part of Contract 1250

Selected footings at the perimeter of Building No. 3733-108 were underpinned under Contract 1250 as part of the utility relocation work. Specifically, Contract 1250 Drawings BP-501 through B-503 called for one row of underpinning piers, approximately 12.5 feet below the ground surface, below the front edge of the building at 8-foot intervals. Given the limited number and depth of the piers, it is judged that the piers will not significantly change the behavior of the building in response to ground movement; therefore, the underpinning was not considered in the original analysis. However, given their location relative to the settlement influence zone, the underpinning is likely to be effective mitigation during excavation for the roof slab.

Structure Stiffness

The YBM Station is a relatively stiff structure (3.5-foot thick slurry walls with largely concrete slab construction on the order of 3- to 4-feet thick), of which portions in the vicinity of Building 3733-108 are being constructed using top-down construction methodology. As noted in Section 1 above, the actual settlement ratio for station excavation will be affected by the construction sequences and workmanship. Given the stiffness of the structure and top-down construction methodology, the actual assumed settlement percentages used for the analysis may be on the conservative side.

3.2.2 Alternative Settlement Mitigation Methodologies

As outlined in the report entitled *Effects of Central Subway Underground Construction on Existing Structures* (May 11, 2009), four methodologies for building settlement mitigation are considered and evaluated for application to Building 3733-108:

Underpinning. Underpinning is a general term for installation of new foundations under an existing building foundation for the purpose of supporting building loads deeper into the ground. Underpinning is often used to prevent settlement of buildings by supporting building loads on a soil stratum that is not subject to settlement. As noted in Section 3.2.1 above, underpinning was installed at Building 3733-108 as part of Contract 1250. This existing underpinning will effectively mitigate settlement during excavation for placement of the roof slab, but would not be effective for mitigation of settlement during subsequent excavation.

Permeation Grouting. Permeation grouting is a ground modification technique that fills pore spaces in soil with grout without disturbing the soil. Performed at relatively low injection pressures, permeation grouting is most often used to decrease permeability, limit settlement by increasing the strength and stiffness of the soil, and reduce ground loss during excavation. The types of soil in which permeation grouting is usually effective include gravels and sands to silty sands and silt. The soils underneath Building 3733-108 consist of low permeable clays and weakly cemented sand. Performing permeation grouting in this soil condition appears to be impractical.

Compensation Grouting. The principle of compensation grouting involves carefully controlled injection of grout between underground excavations and structures requiring protection from settlements due to underground construction. Compensation grout tends to fracture soils rather than permeate soil. A significant advantage of compensation grouting is the wide range of soil conditions in which it can be applied, from hard clays and very dense sands to very soft clays and loose sands. However, compensation grouting must be used carefully, particularly close to existing foundations; damage to buildings due to heave is a potential risk. The current contract documents specify subvertical compensation grouting at Buildings 3733-008 and 3733-108, where the extent of compensation grouting is much more significant at Building 3733-008 and is no longer required. With the elimination of the need for compensation grouting at Building 3733-008, the use of subvertical compensation grouting at Building 3733-108 no longer appears to be a cost effective mitigation methodology for building settlement.

Compaction Grouting. Compaction grouting involves injection of a very stiff, mortar-like, low-mobility grout into subsurface soils in a closely controlled manner. The objective is not to fill inter-particle voids,

as is done with permeation grouting, but rather to displace and compact soil in place. During compaction grouting the soils is densified through compaction, as shown in Figure 18. The shape of the grout mass is usually spherical (a bulb) or cylindrical, depending on the amount of grout hole open during any given injection sequence. In uniform soils, the shape will be fairly regular, whereas in variable soils the shape will be irregular. The primary uses of compaction grouting are to improve soil properties and/or compensate for voids, usually as a preventive and/or remedial measure for structure movement in response to settlement. When used as a reactive remedial measure, improved soil under or around the building that experiences settlement would be able to seize/reduce further settlement. The ground condition in the vicinity of YBM station allows the use of compaction grouting.

4. RECOMMENDATIONS

With the elimination of mitigation measures for Building 3733-008, compensation grouting no longer appears to be a cost effective mitigation to be performed on only a small portion of Building 3733-108. In this case, compaction grouting is considered to be a more cost effective settlement mitigation measure applicable to the anticipated the soil conditions.

4.1 PROPOSED REVISIONS TO CONTRACT DRAWINGS

Compensation grouting is no longer required for either the existing or the proposed building at Block 3733, Lot 008, and, as noted above, is not likely to be a cost effective methodology for mitigating settlement at Building 3733-108. Consequently, it is recommended that Contract 1255 Drawings BP-101 and BP-102 be deleted in their entirety or be revised to reflect compaction grouting as the proposed settlement mitigation for Building 3733-108 only.

4.2 PROPOSED REVISIONS TO CONTRACT SPECIFICAITONS

Section 01 20 00, Price and Payment Procedures: It is recommended that YBM BI-4 and YBM BI-31 be removed and replaced with a new allowance item, Allowance Item 15 – Compaction Grouting at YBM Station (Building 3733-108).

Section 31 09 15, Structural Instrumentation and Monitoring: It is recommended that Building 3733-008 be revised to be a Group B Building, and that Building 3733-108 to be revised to be a building that may require mitigation via compaction grouting.

4.3 DEVELOPMENT OF A COMPACTION GROUTING CONTINGENCY PLAN

While Building 3733-108 is proposed to be reclassified as a building that may require mitigation via compaction grouting, the intent would be to perform compaction grouting in response to, as opposed to in anticipation of, building settlement. Consequently, the bid item for compaction grouting is proposed to be an allowance.

The estimated building settlement is a cumulative effect from excavation for construction of four permanent construction levels (roof slab, mezzanine, concourse, and invert slab), which will take place over an extended period of time. Nevertheless, should monitoring of building settlement indicate that implementation of compaction grouting is necessary, a contingency plan would need to be developed in sufficient detail and within sufficient time for implementation prior to excavating to the next level.

For estimating purposes, assume approximately 16 injection points, each 45 feet long. The basis for this assumption is that the compaction grouting would be performed either (a) within the building footprint and within the influence zone of building settlement, at approximately 8-foot spacing in each direction or (b) along the outside edge of the property for the extent of the influence zone, at approximately 5-foot spacing. The tip of the compaction grout tube would extend to below the Young Bay Mud (Qm) layer, which is approximately 30 to 40 feet below the ground surface.

- a. Refer to Bid Item 1 for Contract 1300 in Article 1.04 for requirements, as applicable to the portion for the YBM-1255 package Work.
 - b. Estimates for progress payment purposes for the portion of Contract 1300 Bid Item 1 applicable to the YBM-1255 package, will be made under this YBM Bid Item.
2. **YBM BID ITEM 2 – NOT USED** ^{ADD. NO. 3}
3. **BID ITEM 3 – ALL WORK EXCEPT FOR WORK INCLUDED IN BID ITEMS BI-1, BI-2, AND BI-4 THROUGH BI-14; ALLOWANCE ITEMS; SEM TOOLBOX ITEMS; AND OPTIONAL BID ITEMS**
- a. Bid Item 3 is distributed to various UMS-1253, CTS-1254R, YBM-1255 and STS-1256 Bid Items. Refer to Bid Item 3 for Contract 1300 in Article 1.04 for requirements, as applicable to the portion for the YBM-1255 package Work. ^{ADD. NO. 1}
 - b. Estimates for progress payment purposes for the portion of Contract 1300 Bid Item 3 applicable to the YBM-1255 package, will be made under other applicable YBM Bid Items.
4. **YBM BID ITEM 4 – COMPENSATION GROUTING (YBM)**
- a. Refer to Bid Item 4 for Contract 1300 in Article 1.04 for requirements, as applicable to the portion for the YBM-1255 package Work.
 - b. Only compensation grouting injection Work shown on the YBM-1255 package Building Protection BP Drawings and related Specification Sections, shall be measured for payment.
 - c. Estimates for progress payment purposes for the portion of Contract 1300 Bid Item 3 applicable to the YBM-1255 package, will be made under this YBM Bid Item.
 - d. The cost of YBM-1255 package compensation grout holes is paid under other YBM Bid Items. ^{ADD. NO. 1}
5. **BID ITEMS 5 through 8**
- a. Not Applicable to YBM-1255 package.
6. **BID ITEM 9—CALIFORNIA CLASS I (NON-RCRA) EXCAVATED HAZARDOUS WASTES HANDLING AND DISPOSAL (YBM)**
- a. Same as Bid Item 9 for Contract 1300 in Article 1.04.
 - b. Estimates for progress payment purposes for this Item shall be made based on the Contractor's approved schedule of values under this YBM Bid Item. ^{ADD. NO. 1}

- a. The Lump Sum price for Structural Work shall be full payment for Work indicated on YBM-1255 package Structural ST Drawings and related Specification Sections.
- b. Estimates for progress payment purposes shall be made under this YBM Bid Item based on the Contractor's approved Schedule of Values.

24. **YBM BID ITEM 30 - BUILDING PROTECTION (YBM)**

- a. The Lump Sum price for Building Protection Work shall be full payment for Work and Materials indicated on YBM-1255 package Building Protection BP Drawings and as stated in Sections 01 76 29 Protection of Existing Properties, 31 09 13 Geotechnical Instrumentation and Monitoring, and 31 09 15 Structural Instrumentation and Monitoring, except as provided under other Bid Items. Only those Items that are shown on the YBM-1255 package Building Protection BP Drawings and related Specification Sections shall be measured for payment. Any such items required elsewhere shall be considered Incidental to the Work for which it is needed.
- b. Estimates for progress payment purposes shall be made under this YBM Bid Item, based on the Contractor's approved Schedule of Values, which shall include furnishing, installing, maintaining, protecting, making measurements, interpreting, reporting, removal, and location restoration of items compensable under this YBM Bid Item.
- c. The costs for YBM-1255 package Compensation Grout Holes and Compensation Grouting shall be paid under other YBM Bid Items 31 and 4.

25. **YBM BID ITEM 31 - COMPENSATION GROUT HOLES (YBM)**

- a. The Lump Sum price for Compensation Grout Holes shall be full payment for the cost of Work and Materials necessary for investigation/surveying, drilling, pre-conditioning, pre-heaving of buildings, de-watering, tie-back cutting, pre-grouting, and abandoning compensation grout holes, for the YBM-1255 package. ^{ADD. NO. 8}
- b. Only compensation grout hole work shown on the YBM-1255 package Building Protection BP Drawings and related Specification Sections, and as approved by the Engineer, shall be measured for payment.
- c. The cost of re-drilling and casing holes, and temporary changes to driveways, walkways, and landscaping for Compensation Grout Holes Work shown on the YBM-1255 package Drawings, is Incidental Work to this YBM Bid Item.

- d. The cost for performing YBM-1255 package compensation grouting is paid under other YBM Bid Items.
- e. Estimates for progress payment purposes will be made under this YBM Bid Item based on the Contractor's approved Schedule of Values. ^{ADD. NO. 8}

26. YBM BID ITEM 32 - ARCHITECTURAL (YBM)

- a. The Lump Sum price for Architectural Work shall be full payment for Architectural Work indicated on YBM-1255 package Architectural AR Drawings, except for Artwork and Conveying Systems (escalators and elevators) shown on the YBM-1255 package Architectural AR Drawings; and related Specification Sections.
- b. Estimates for progress payment purposes shall be made under this YBM Bid Item, based on the Contractor's approved Schedule of Values.
- c. The cost for compensation of YBM-1255 package Artwork and Conveying Systems are paid under other YBM Bid Items.

27. YBM BID ITEM 33 - ARTWORK (YBM)

- a. The Lump Sum price for Artwork shall be full payment for installation of Artwork including but not limited to handling, storage, pick-up, delivery, installing and protecting Artwork—as indicated on YBM-1255 package Architectural AR Drawings and related Specification Sections.
- b. Estimates for progress payment purposes shall be made under this YBM Bid Item, based on the Contractor's approved Schedule of Values.
- c. The cost for all other YBM-1255 package Architectural Work is paid under other YBM Bid Items.

28. YBM BID ITEM 34—CONVEYING EQUIPMENT (YBM)

- a. The Lump Sum price for Conveying Equipment (escalators and elevators) shall be full payment for installation of escalators and elevators, including but not limited to handling, installing, protecting and providing associated equipment controls and monitoring of escalators and elevators as indicated on YBM-1255 package Architectural AR Drawings and related Specification Section.
- b. Estimates for progress payment purposes shall be made under this YBM Bid Item, based on the Contractor's approved Schedule of Values.

Submittal Transmittal

0024 - 01 57 19.54 - 0

SFMTA 3rd St Light Rail Prog - 01760

Tel: 415-638-6052 Fax:

530 Bush Street

Suite 302

San Francisco, CA 94108

Submittal Transmittal #: 1081

Printed on: 6/9/2014

Transmitted To:
Richard Redmond
SF Municipal Transportation Agency 821 Howard Street 2nd Floor San Francisco, CA 94103 Tel: (415) 701-4288

Date Sent:	Transmitted For:	
6/9/14	Information	
Date Due:	Transmitted By:	Delivered By:
6/23/14	Derek Brown	WebSite

Description:

CTS Noise & Vibe Reports 05.15.2014-05.30.2014

Item #	Qty.	Description:	Spec.	Notes:	Action:
0001	1	C1300 CTS Noise Report 05.15.2014-05.16.14	01 57 19.54-1.03 B		
0002	1	C1300 CTS Vibration Report 05.12.2014-05.16.2014	01 57 19.54-1.03 B		
0003	1	C1300 CTS Noise Report 05.19.2014-05.23.14	01 57 19.54-1.03 B		
0004	1	C1300 CTS Vibration Report 05.19.2014-05.23.2014	01 57 19.54-1.03 B		
0005	1	C1300 CTS Noise Report 05.26.2014-05.30.14	01 57 19.54-1.03 B		
0006	1	C1300 CTS Vibration Report 05.26.2014-05.30.2014	01 57 19.54-1.03 B		

Remarks:

Copies To:

SFMTA 3rd St Light Rail Prog - 01760

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Date Sent:	Transmitted For:	
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6/23/14	Derek Brown	WebSite

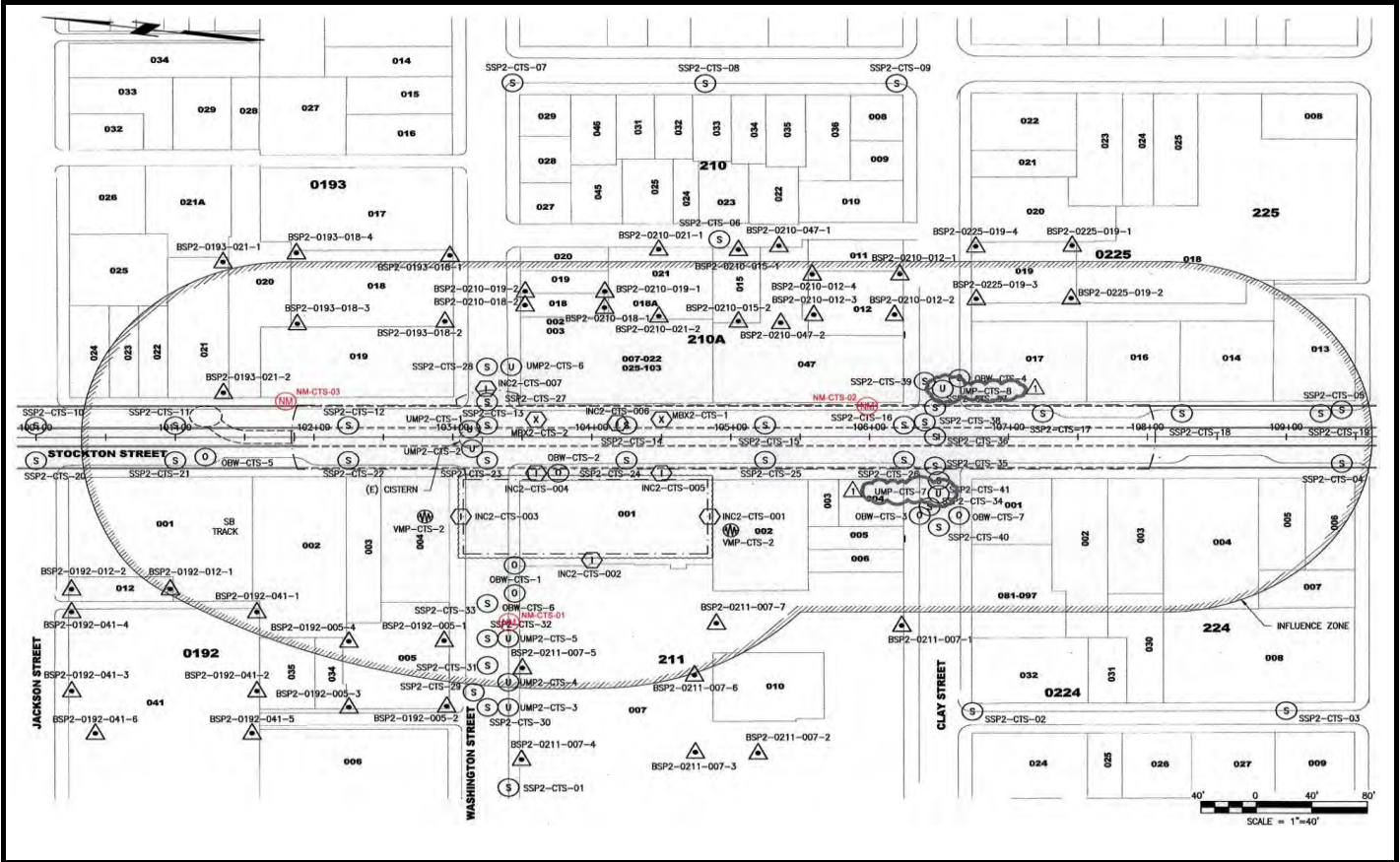
SUBMITTAL REVIEW STAMP		
Tutor Perini Corporation		
Third Street Light Rail Program		
Contract 1300, Phase 2 - Central Subway		
Package(s) 0024 - 01.57.19.54 - 0		
This submittal has been reviewed and appears to be in general conformance with the Contract Documents		
6/9/14	Derek Brown	
DATE	FIELD ENGINEER	

Third Street Light Rail Central Subway, Contract No. 1300

DAILY NOISE REPORT

Date: 5/15/2014

Day of week: Thursday



Monitoring Period	Day (M-F, 7 am to 8 pm)	Night (M-F, 8 pm to 7 am, & weekends)
Unit & Location	Maximum Leq (1-hour) in dB(A)	
Chinatown Station	75.5	72.2

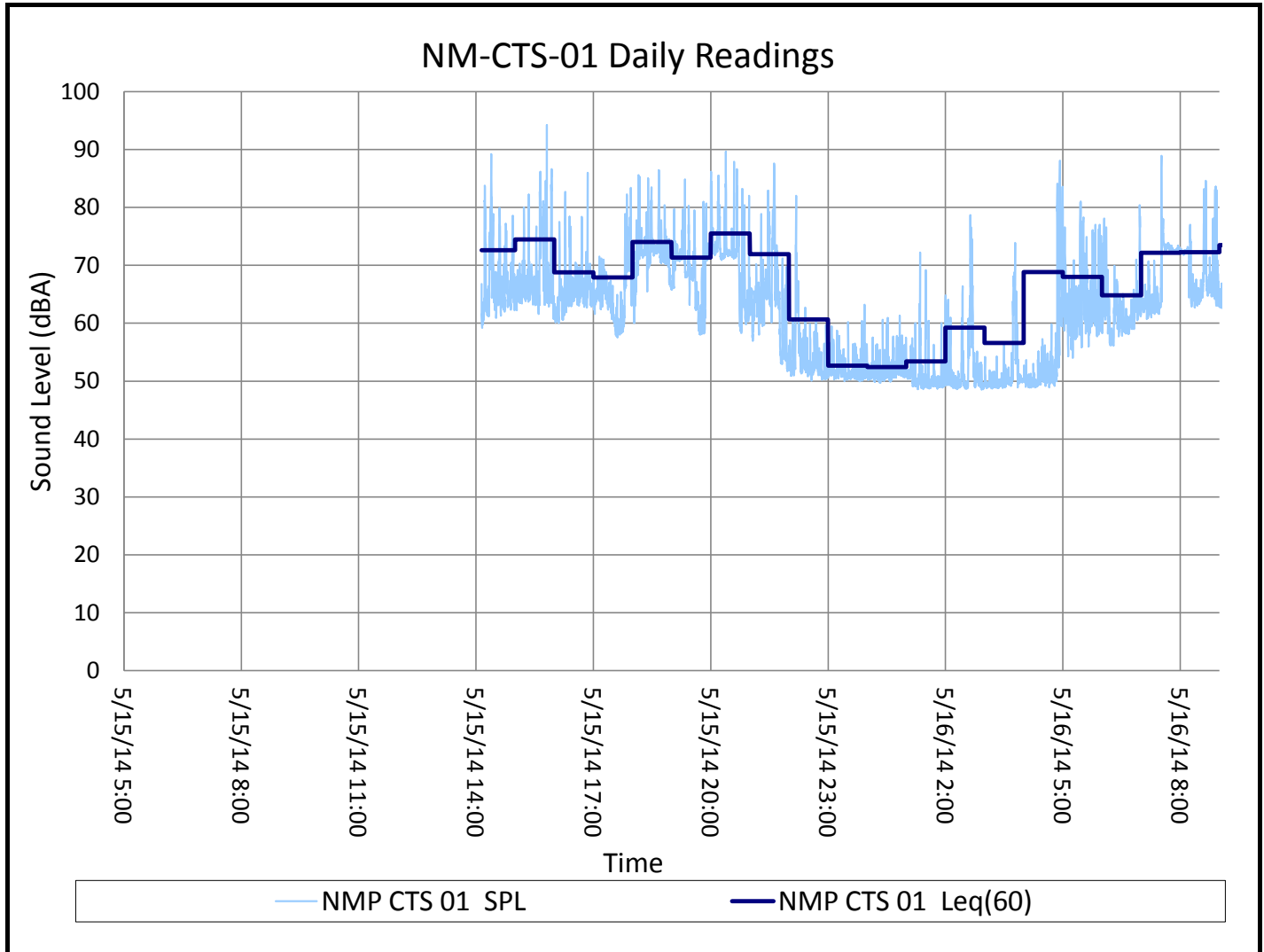
Notes:

Report prepared by: Michelle Morales



42 Washington Road, Princeton Junction, NJ 08550
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Third Street Light Rail
Central Subway, Contract No. 1300
Chinatown Station Noise Report



WEATHER INFORMATION

Monitoring Period	Day (M-F, 7 am to 8 pm)	Night (M-F, 8 pm to 7 am, & weekends)
Description	Scattered clouds to mostly cloudy	Scattered clouds to mostly cloudy
Temperature (Deg F)	Average: 73.4	Average: 57.2
Pressure (Inch Hg)	Average: 30.08	Average: 30.08
Relative Humidity (%)	Average: 39.7	Average: 77.9
Wind Speed (Mph)	Max: 27.6 / Direction: SW	Max: 20.7 / Direction: WNW



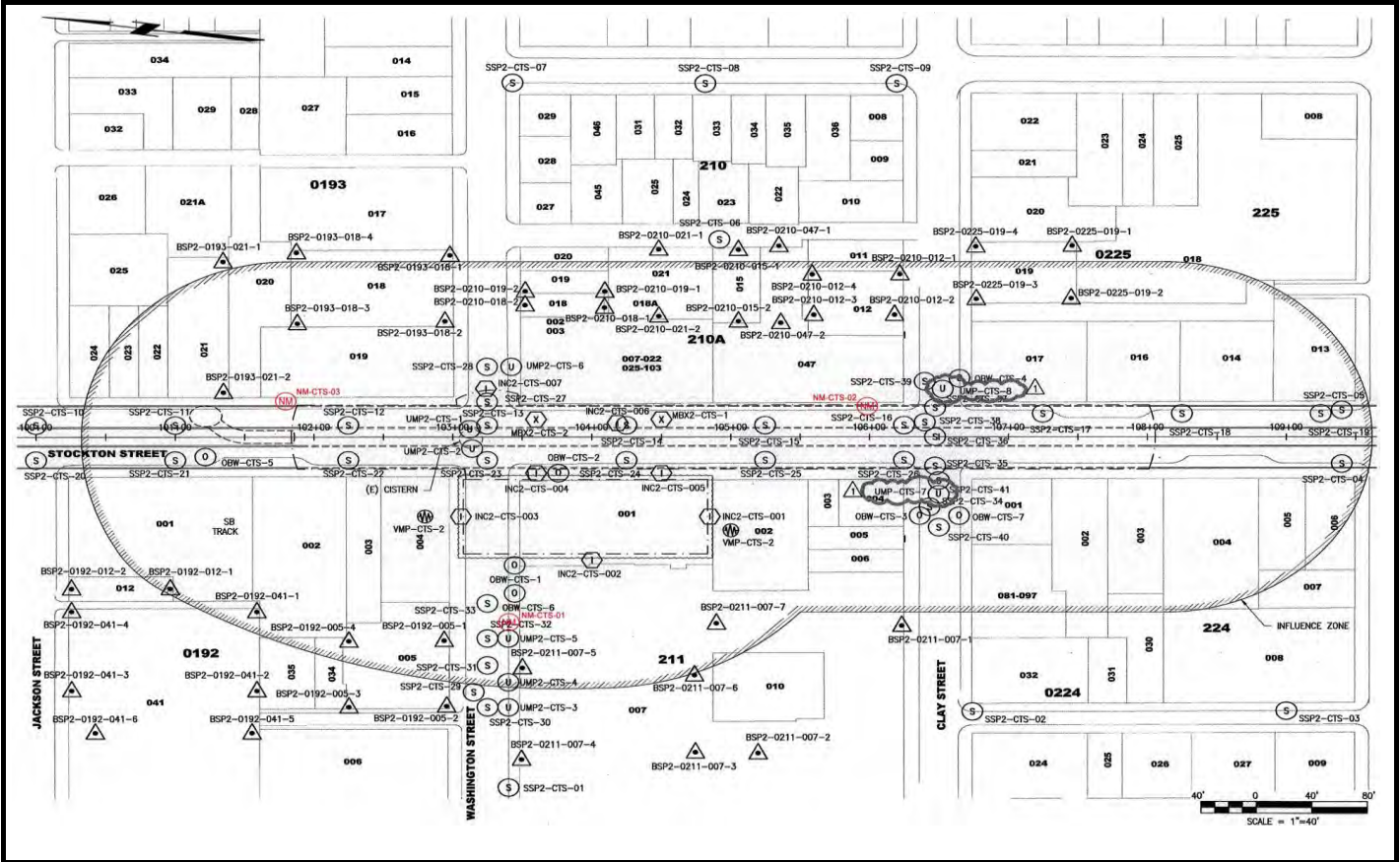
42 Washington Road, Princeton Junction, NJ 08550
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Third Street Light Rail Central Subway, Contract No. 1300

DAILY NOISE REPORT

Date: 5/16/2014

Day of week: Friday



Monitoring Period	Day (M-F, 7 am to 8 pm)	Night (M-F, 8 pm to 7 am, & weekends)
Unit & Location	Maximum Leq (1-hour) in dB(A)	
Chinatown Station	74.2	57.1

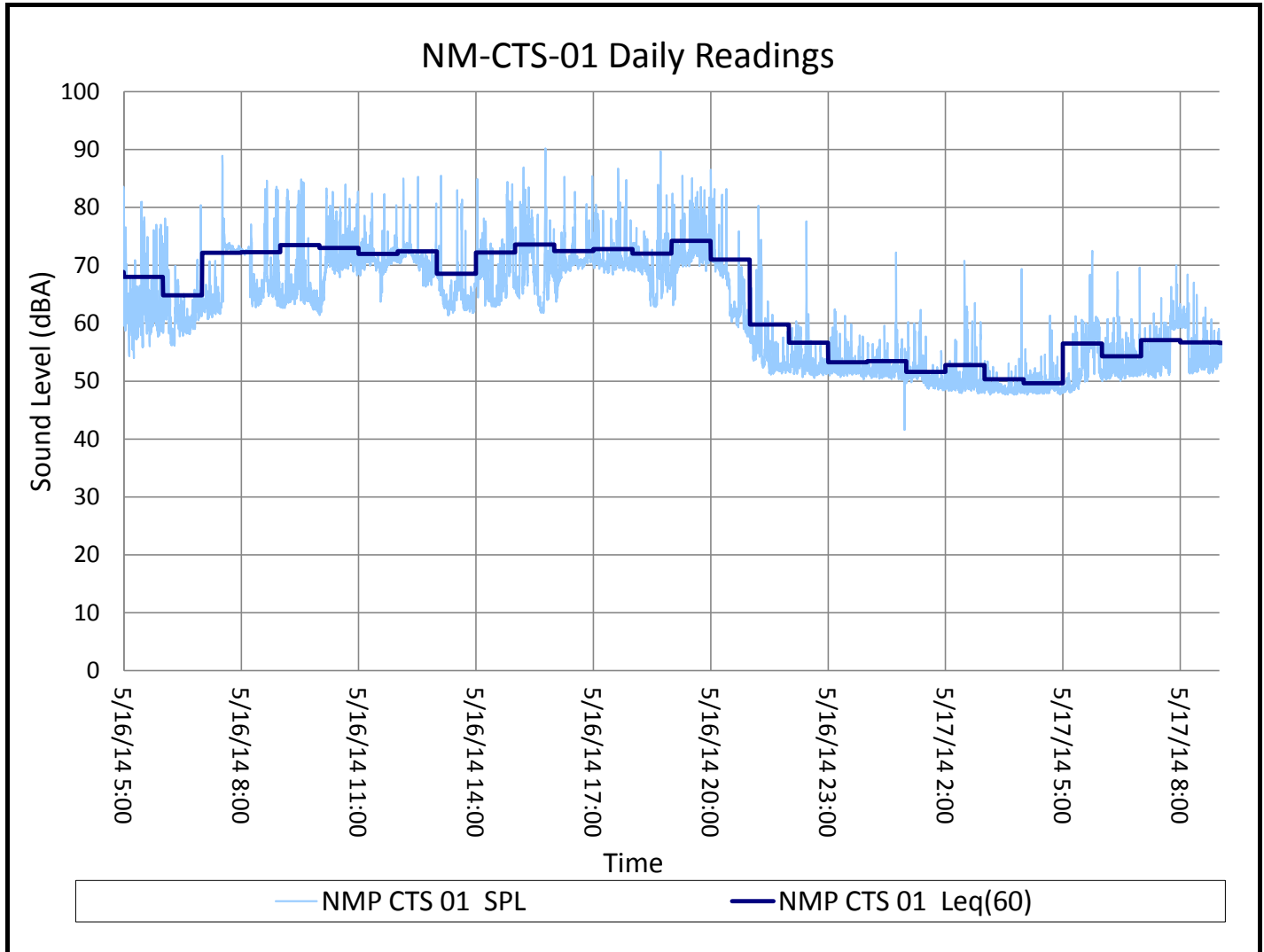
Notes:

Report prepared by: Michelle Morales



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Third Street Light Rail
Central Subway, Contract No. 1300
Chinatown Station Noise Report



WEATHER INFORMATION

Monitoring Period	Day (M-F, 7 am to 8 pm)	Night (M-F, 8 pm to 7 am, & weekends)
Description	Scattered clouds to mostly cloudy	Scattered clouds ranging to overcast
Temperature (Deg F)	Average: 64.8	Average: 57.9
Pressure (Inch Hg)	Average: 30.06	Average: 30
Relative Humidity (%)	Average: 62.2	Average: 81.7
Wind Speed (Mph)	Max: 28.8 / Direction: West	Max: 25.3 / Direction: West



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**Third Street Light Rail Program Phase 2
Central Subway Project
Contract 1300**

Weekly Instrumentation Report
Seismograph

Instrumentation Location Plan Chinatown Station

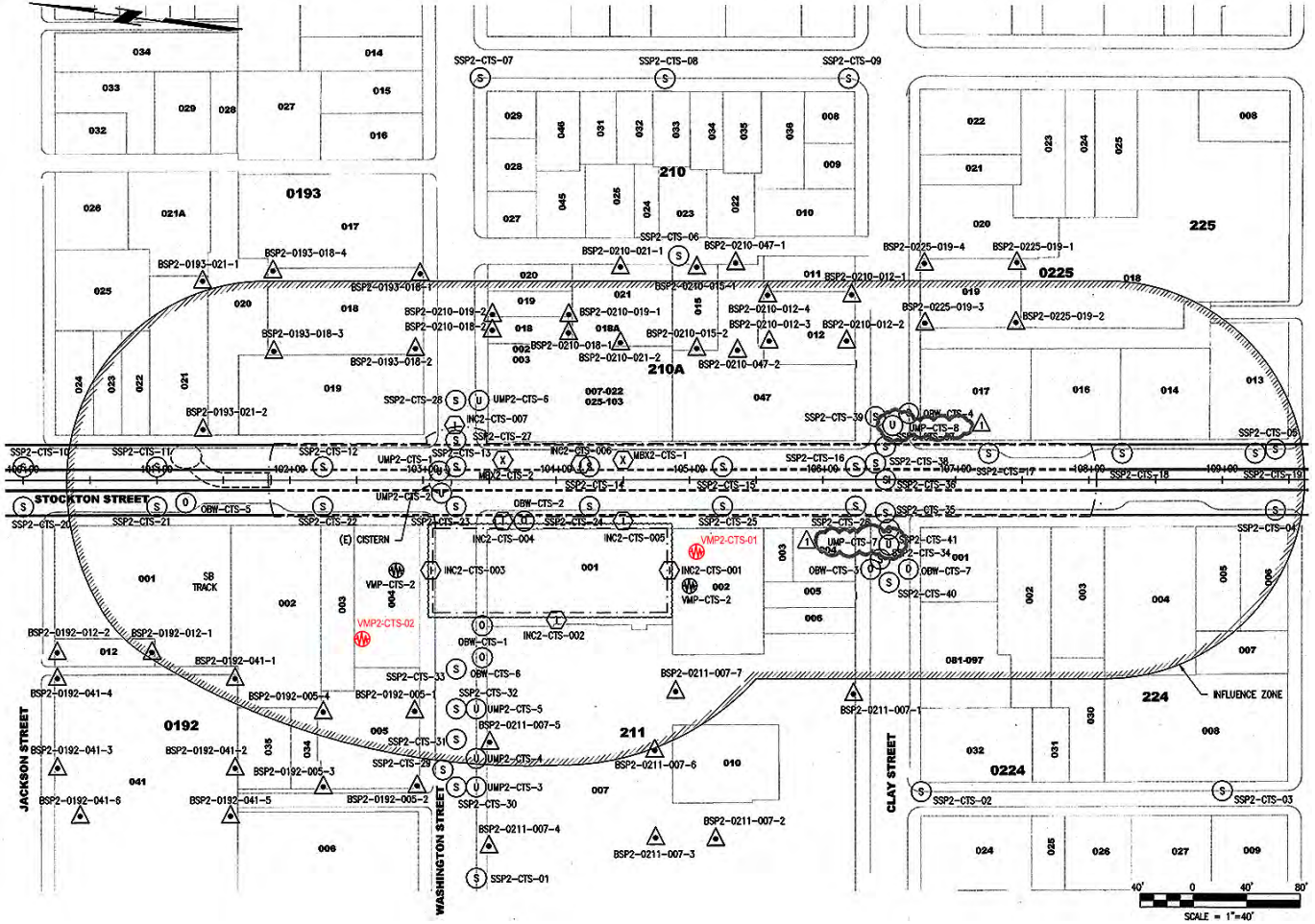
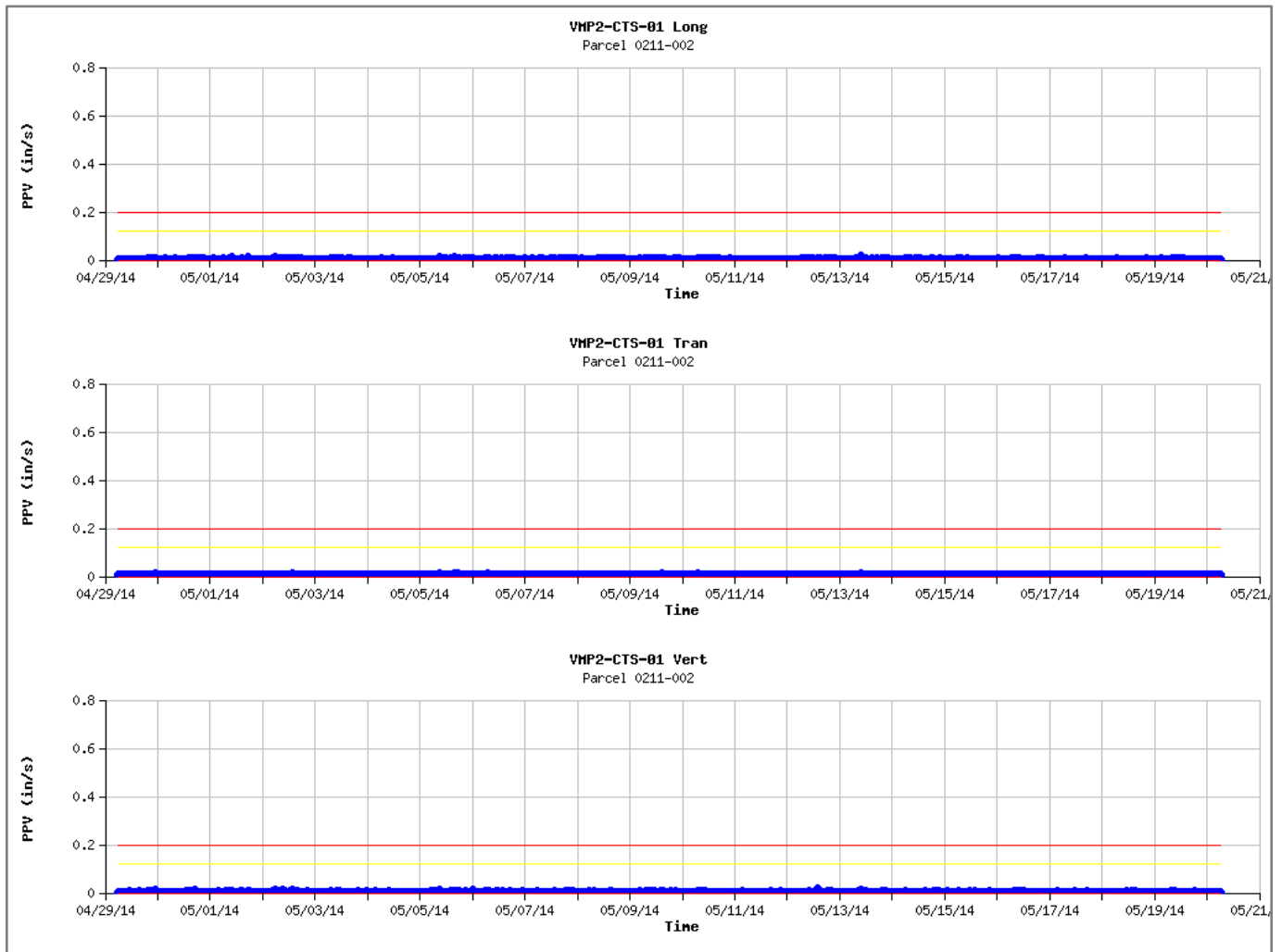


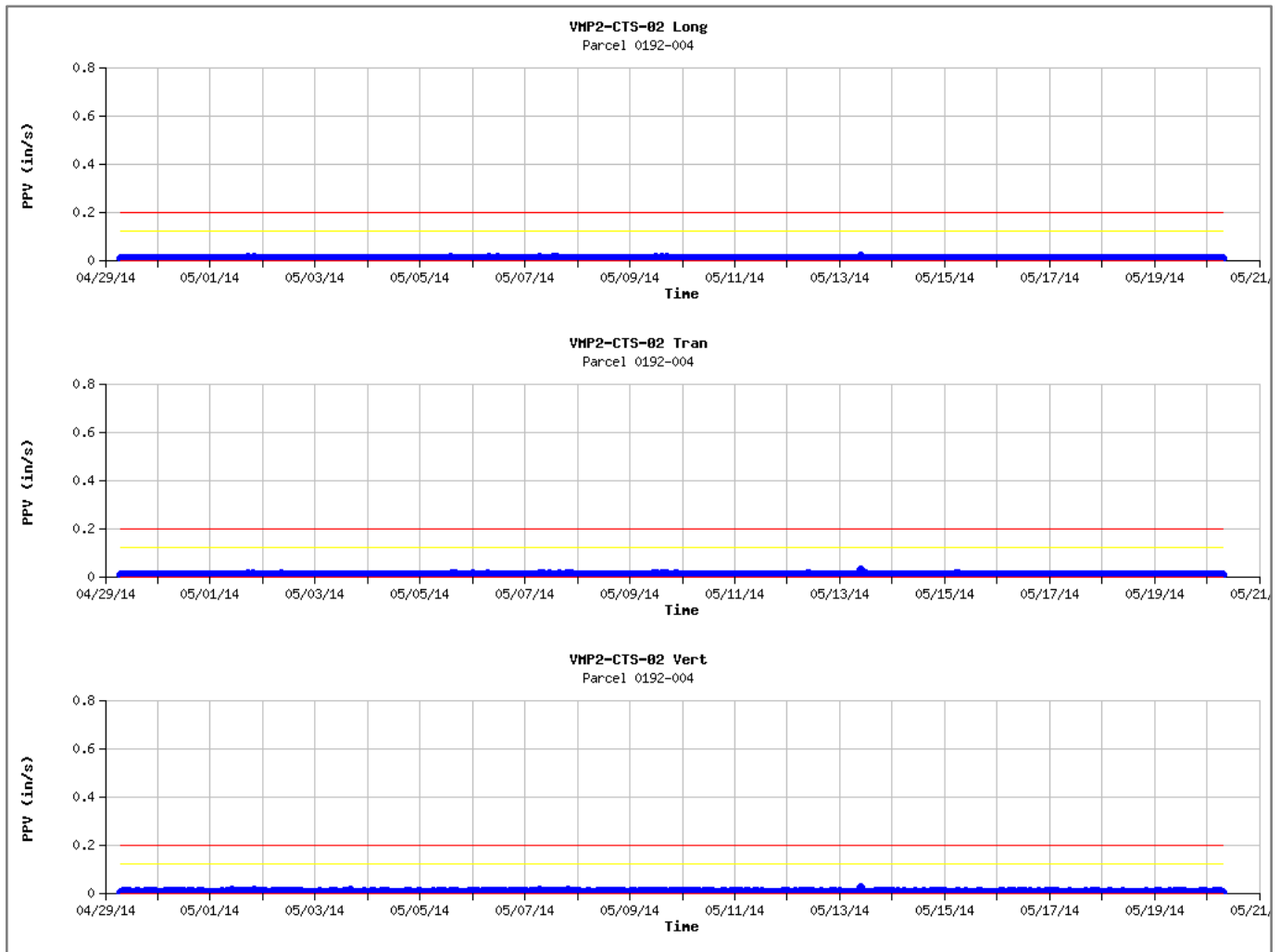
Table 12-1: Vibration Limits

<i>Location</i>	<i>Specific Restrictions</i>	<i>Peak Particle Velocity (in/s)</i>
Moscone Station	Continuous vibration (e.g. vibratory equipment, impact pile drivers)	0.20
	Nighttime construction activities	0.12
	Historic structures within 200 feet	0.12
	All others	0.20
UMS Station	Historic structures within 200 feet	0.12
	All others	0.20
Chinatown Station	Continuous vibration (e.g. vibratory equipment, impact pile drivers)	0.20
	Nighttime construction activities	0.12
	All others	0.20

Central Subway Station - Vibration Monitoring



Central Subway Station - Vibration Monitoring

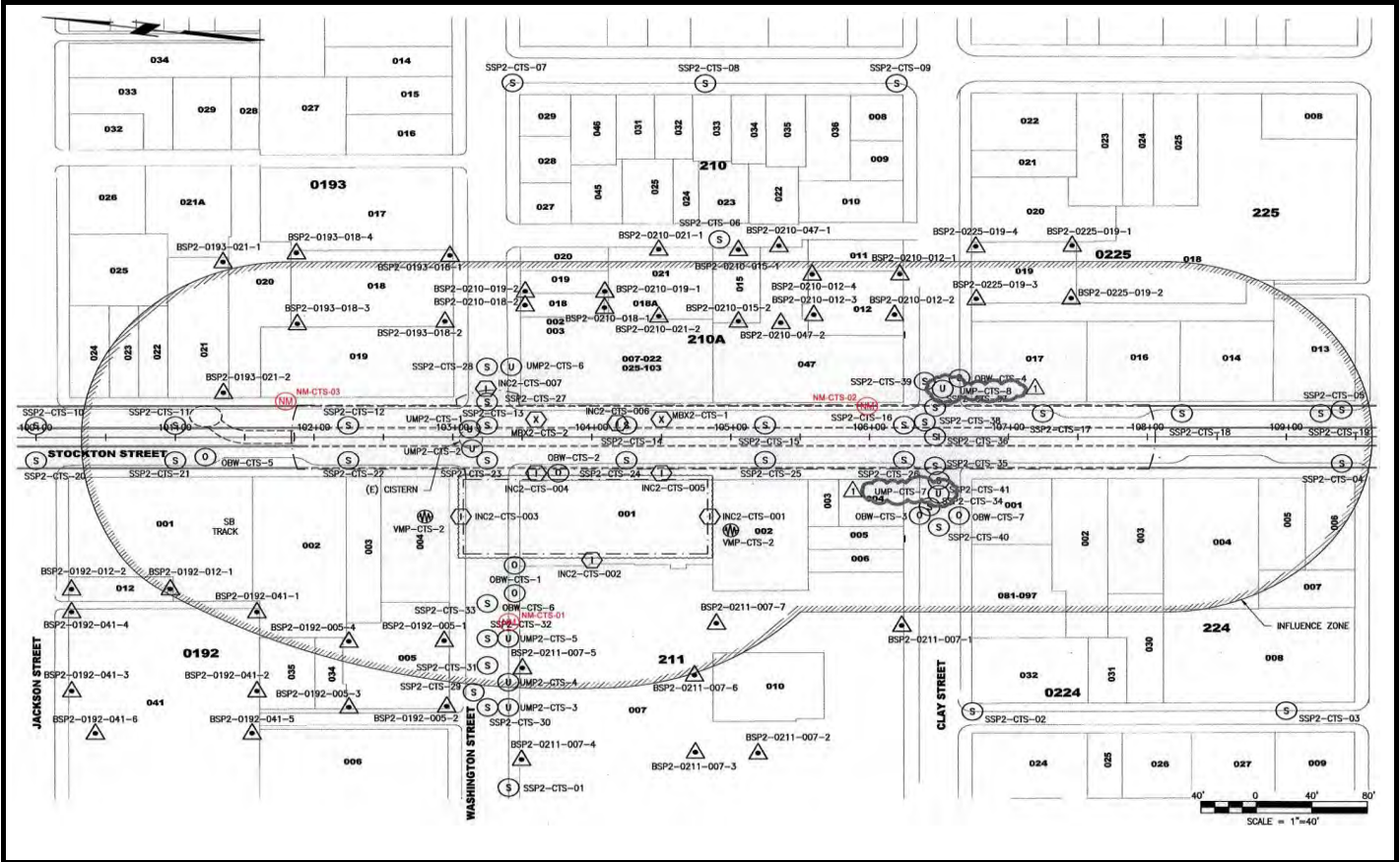


Third Street Light Rail Central Subway, Contract No. 1300

DAILY NOISE REPORT

Date: 5/19/2014

Day of week: Monday



Monitoring Period	Day (M-F, 7 am to 8 pm)	Night (M-F, 8 pm to 7 am, & weekends)
Unit & Location	Maximum Leq (1-hour) in dB(A)	
Chinatown Station	74.9	71.9

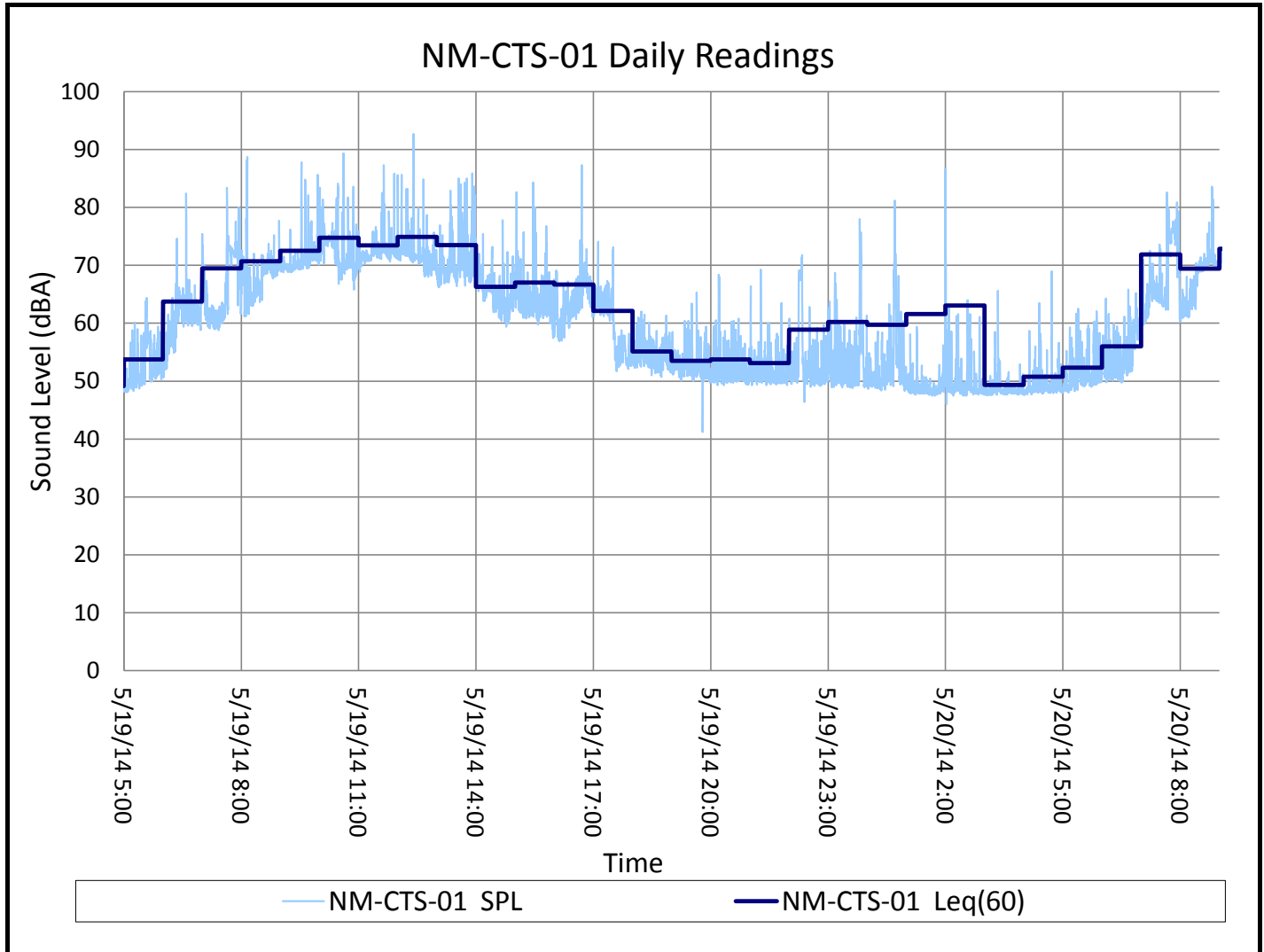
Notes:

Report prepared by: Michelle Morales



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Third Street Light Rail
Central Subway, Contract No. 1300
Chinatown Station Noise Report



WEATHER INFORMATION

Monitoring Period	Day (M-F, 7 am to 8 pm)	Night (M-F, 8 pm to 7 am, & weekends)
Description	Scattered clouds to mostly cloudy	Scattered clouds to mostly cloudy
Temperature (Deg F)	Average: 62.9	Average: 57.3
Pressure (Inch Hg)	Average: 29.97	Average: 29.96
Relative Humidity (%)	Average: 65.7	Average: 80.4
Wind Speed (Mph)	Max: 23 / Direction: West	Max: 18.4 / Direction: West



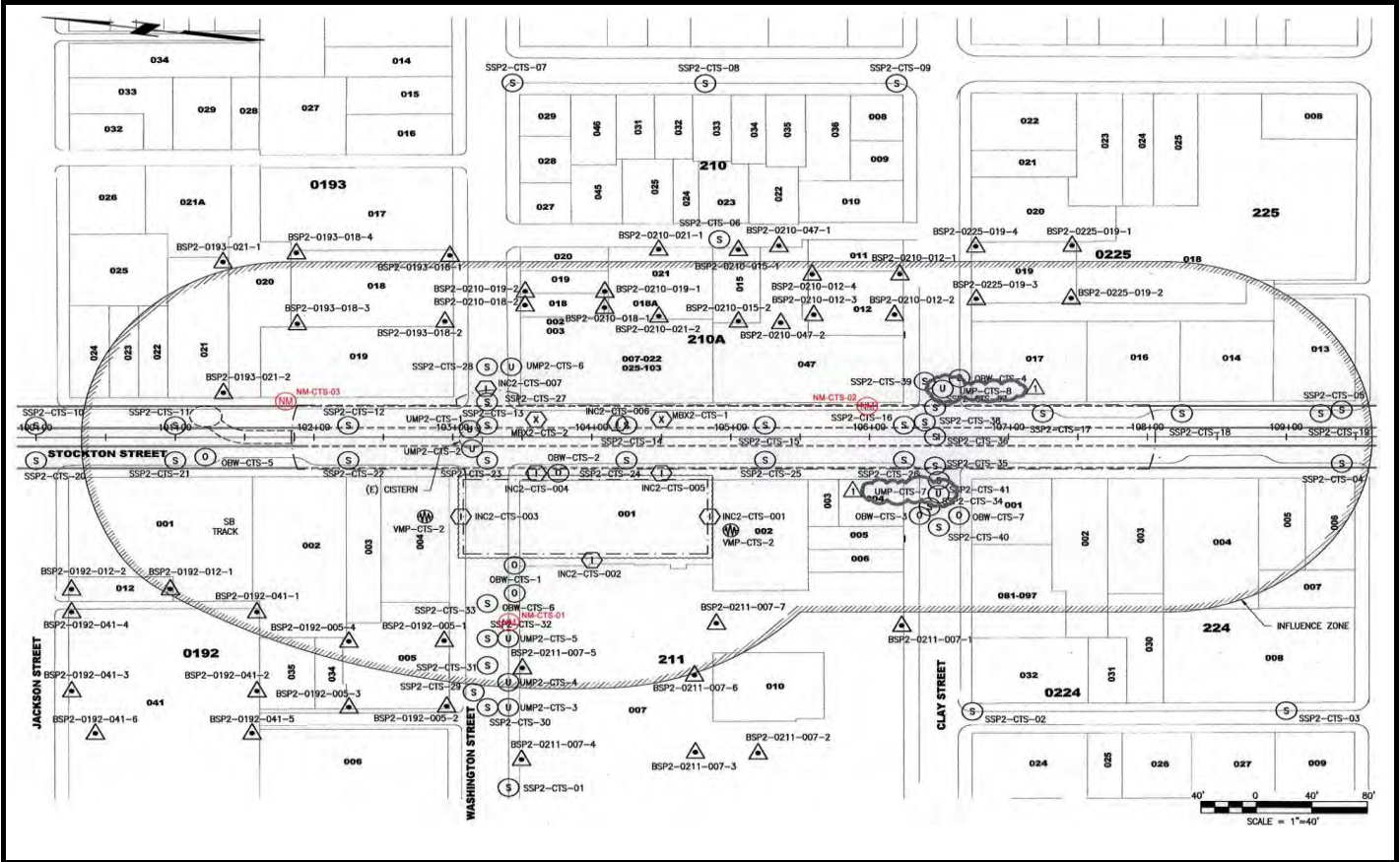
42 Washington Road, Princeton Junction, NJ 08550
Tel: (609) 750 8860 Fax: (609) 750 8870

Third Street Light Rail Central Subway, Contract No. 1300

DAILY NOISE REPORT

Date: 5/20/2014

Day of week: Tuesday



Monitoring Period	Day (M-F, 7 am to 8 pm)	Night (M-F, 8 pm to 7 am, & weekends)
Unit & Location	Maximum Leq (1-hour) in dB(A)	
Chinatown Station	76.6	71.3

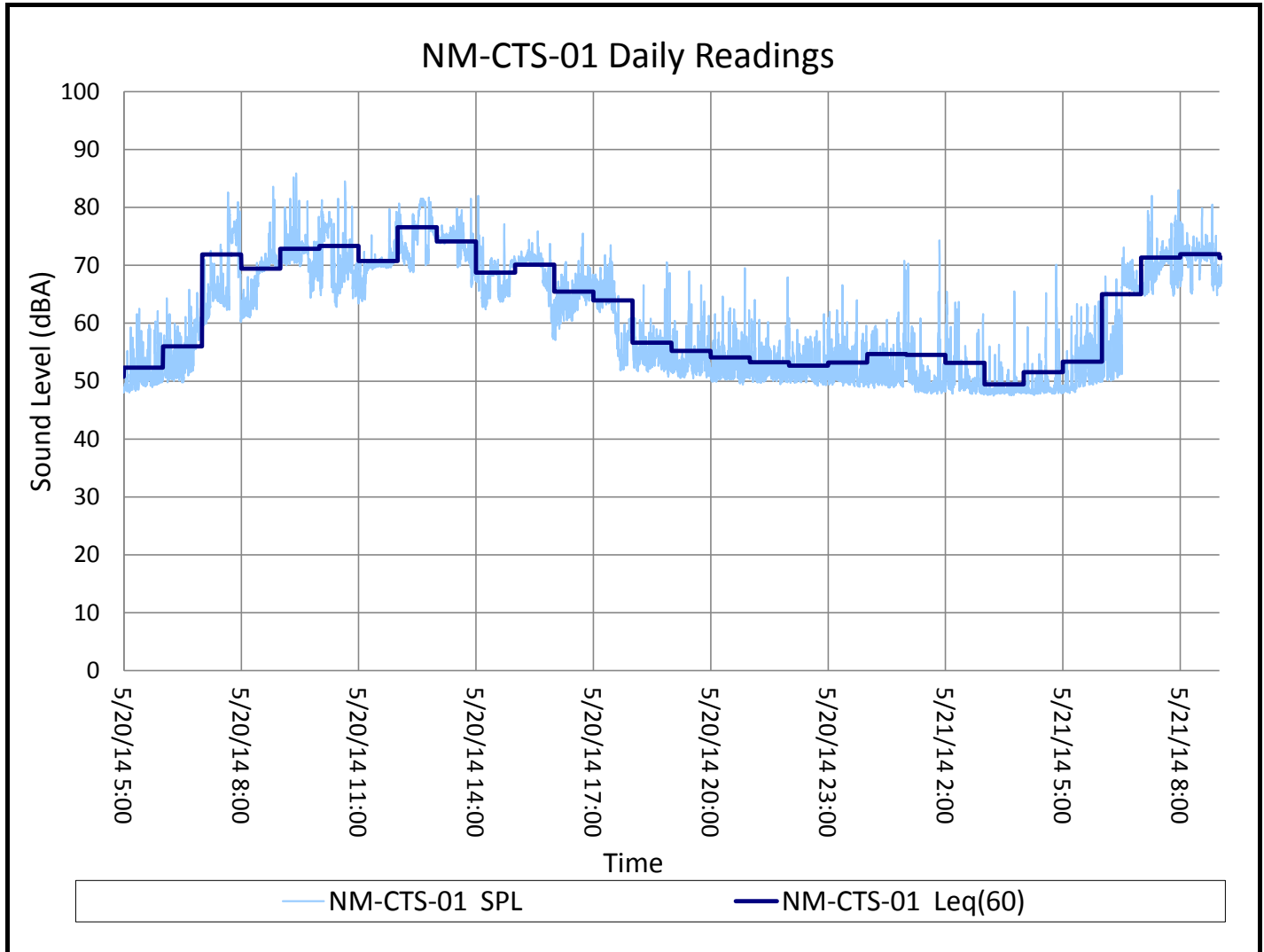
Notes:

Report prepared by: Michelle Morales



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Third Street Light Rail
Central Subway, Contract No. 1300
Chinatown Station Noise Report



WEATHER INFORMATION

Monitoring Period	Day (M-F, 7 am to 8 pm)	Night (M-F, 8 pm to 7 am, & weekends)
Description	Scattered clouds to mostly cloudy	Overcast
Temperature (Deg F)	Average: 64.1	Average: 57
Pressure (Inch Hg)	Average: 30	Average: 29.97
Relative Humidity (%)	Average: 64.4	Average: 82.2
Wind Speed (Mph)	Max: 20.7 / Direction: West	Max: 15 / Direction: WSW



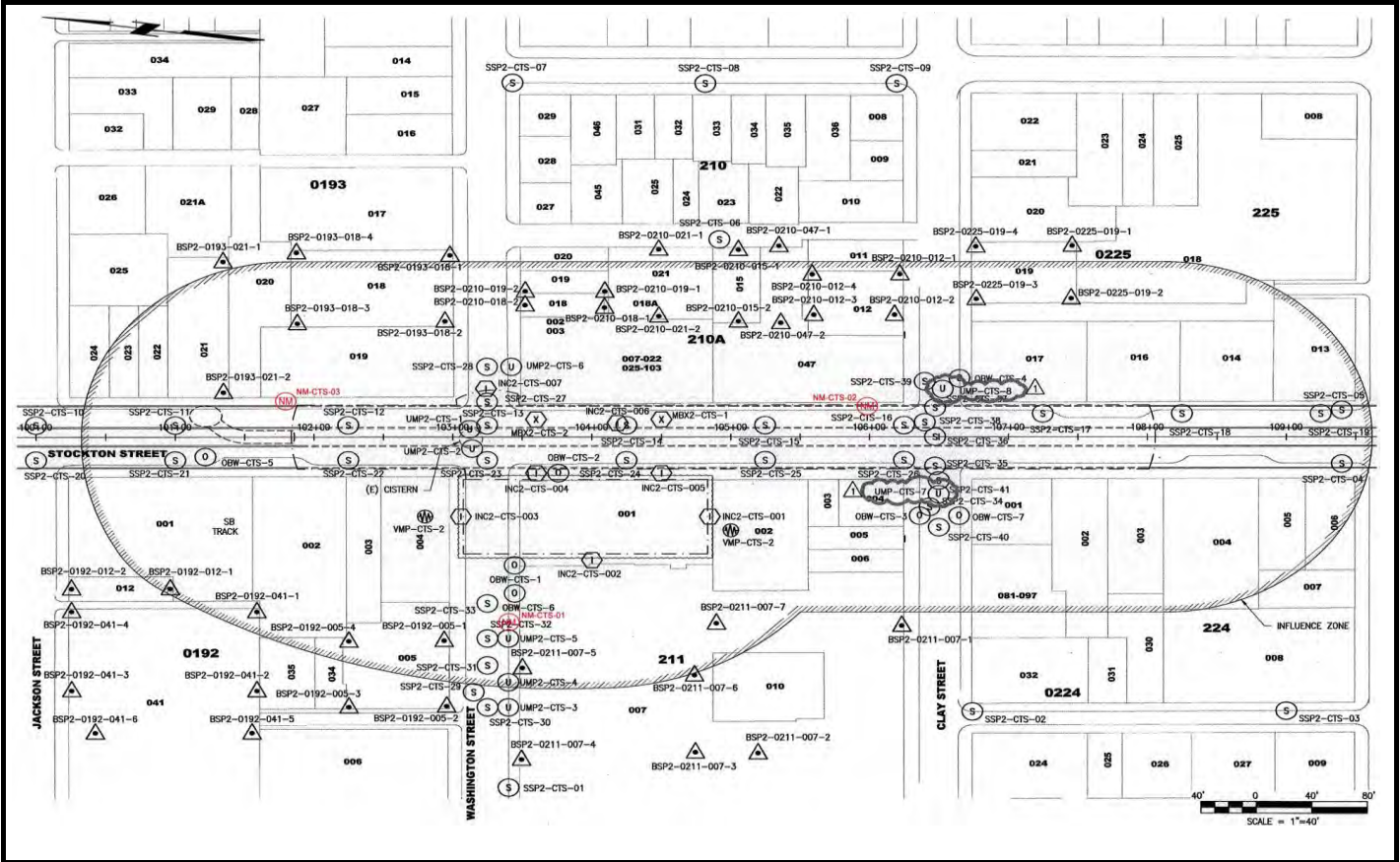
42 Washington Road, Princeton Junction, NJ 08550
Tel: (609) 750 8860 Fax: (609) 750 8870

Third Street Light Rail Central Subway, Contract No. 1300

DAILY NOISE REPORT

Date: 5/21/2014

Day of week: Wednesday



Monitoring Period	Day (M-F, 7 am to 8 pm)	Night (M-F, 8 pm to 7 am, & weekends)
Unit & Location	Maximum Leq (1-hour) in dB(A)	
Chinatown Station	73.1	63

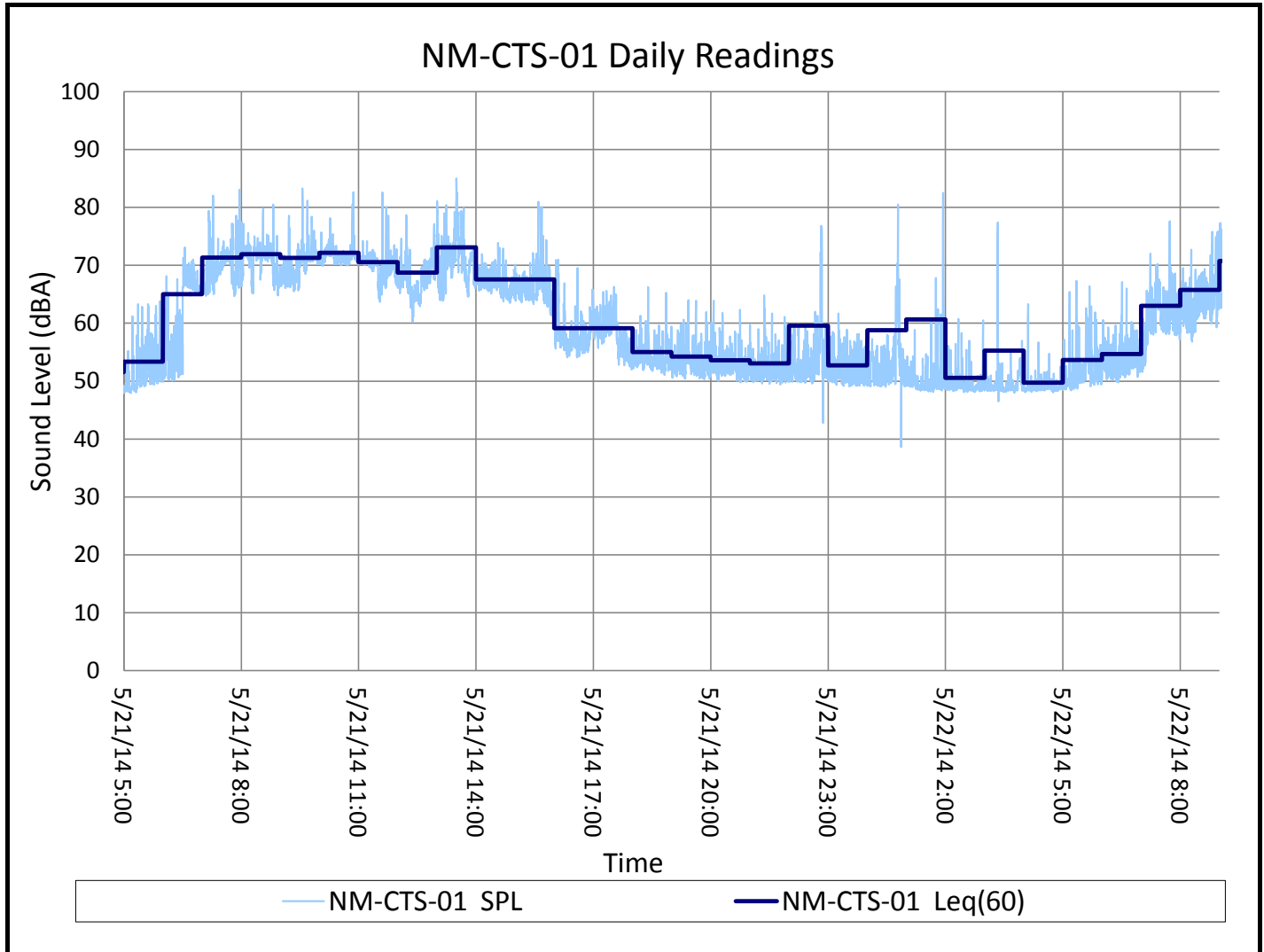
Notes:

Report prepared by: Michelle Morales



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Tel: (609) 750 8860 Fax: (609) 750 8870

Third Street Light Rail
 Central Subway, Contract No. 1300
 Chinatown Station Noise Report



WEATHER INFORMATION

Monitoring Period	Day (M-F, 7 am to 8 pm)	Night (M-F, 8 pm to 7 am, & weekends)
Description	Scattered clouds to mostly cloudy	Overcast
Temperature (Deg F)	Average: 63.2	Average: 57.3
Pressure (Inch Hg)	Average: 29.96	Average: 29.96
Relative Humidity (%)	Average: 67.4	Average: 80.9
Wind Speed (Mph)	Max: 20.7 / Direction: SW	Max: 11.5 / Direction: WSW



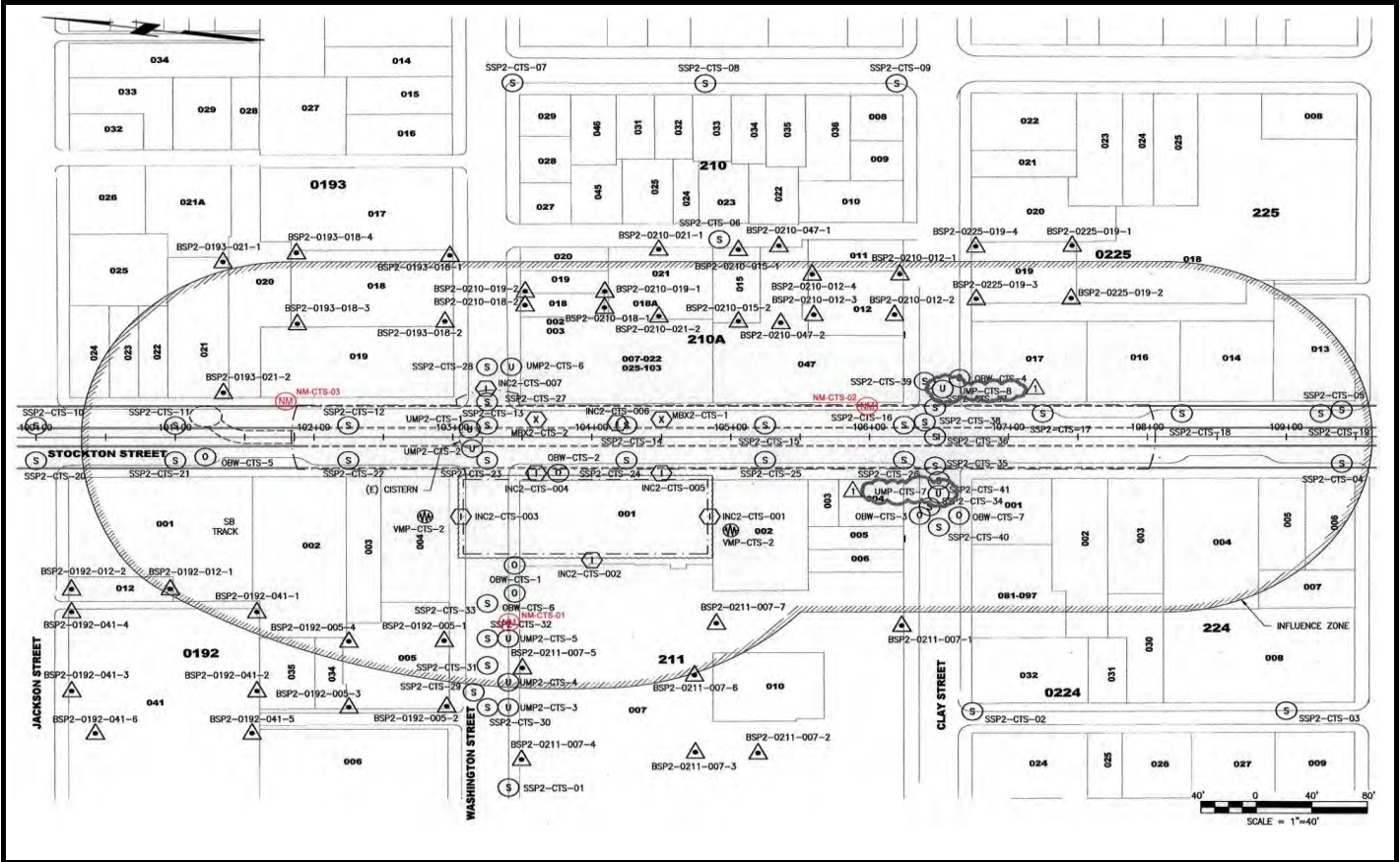
42 Washington Road, Princeton Junction, NJ 08550
 Tel: (609) 750 8860 Fax: (609) 750 8870

Third Street Light Rail Central Subway, Contract No. 1300

DAILY NOISE REPORT

Date: 5/22/2014

Day of week: Thursday



Monitoring Period	Day (M-F, 7 am to 8 pm)	Night (M-F, 8 pm to 7 am, & weekends)
Unit & Location	Maximum Leq (1-hour) in dB(A)	
Chinatown Station	75.3	66.2

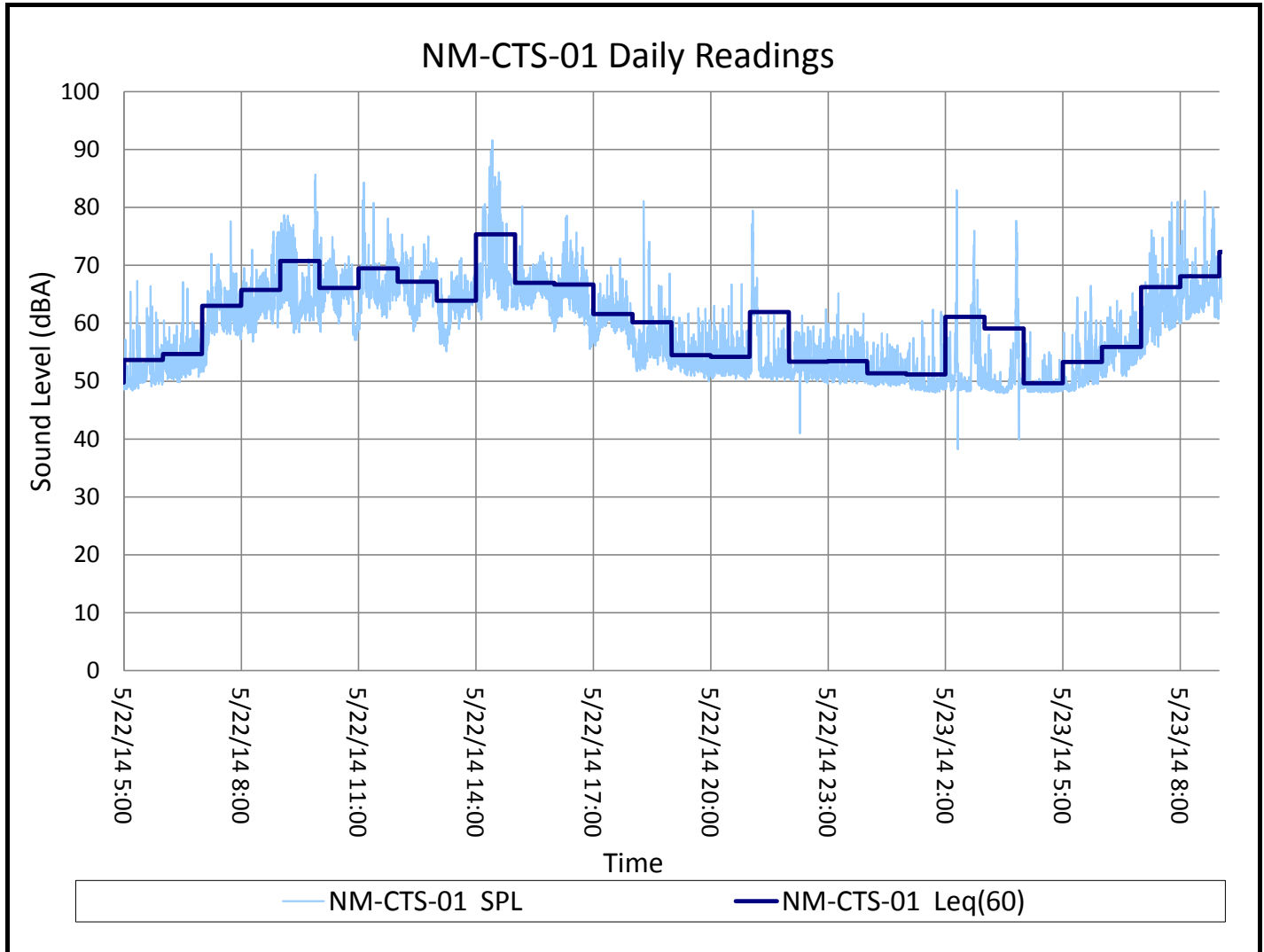
Notes:

Report prepared by: Michelle Morales



42 Washington Road, Princeton Junction, NJ 08550
Tel: (609) 750 8860 Fax: (609) 750 8870

Third Street Light Rail
Central Subway, Contract No. 1300
Chinatown Station Noise Report



WEATHER INFORMATION

Monitoring Period	Day (M-F, 7 am to 8 pm)	Night (M-F, 8 pm to 7 am, & weekends)
Description	Scattered clouds ranging to overcast	Scattered clouds to mostly cloudy
Temperature (Deg F)	Average: 63.3	Average: 55.4
Pressure (Inch Hg)	Average: 29.97	Average: 30.03
Relative Humidity (%)	Average: 68.4	Average: 86.1
Wind Speed (Mph)	Max: 19.6 / Direction: WNW	Max: 13.8 / Direction: West



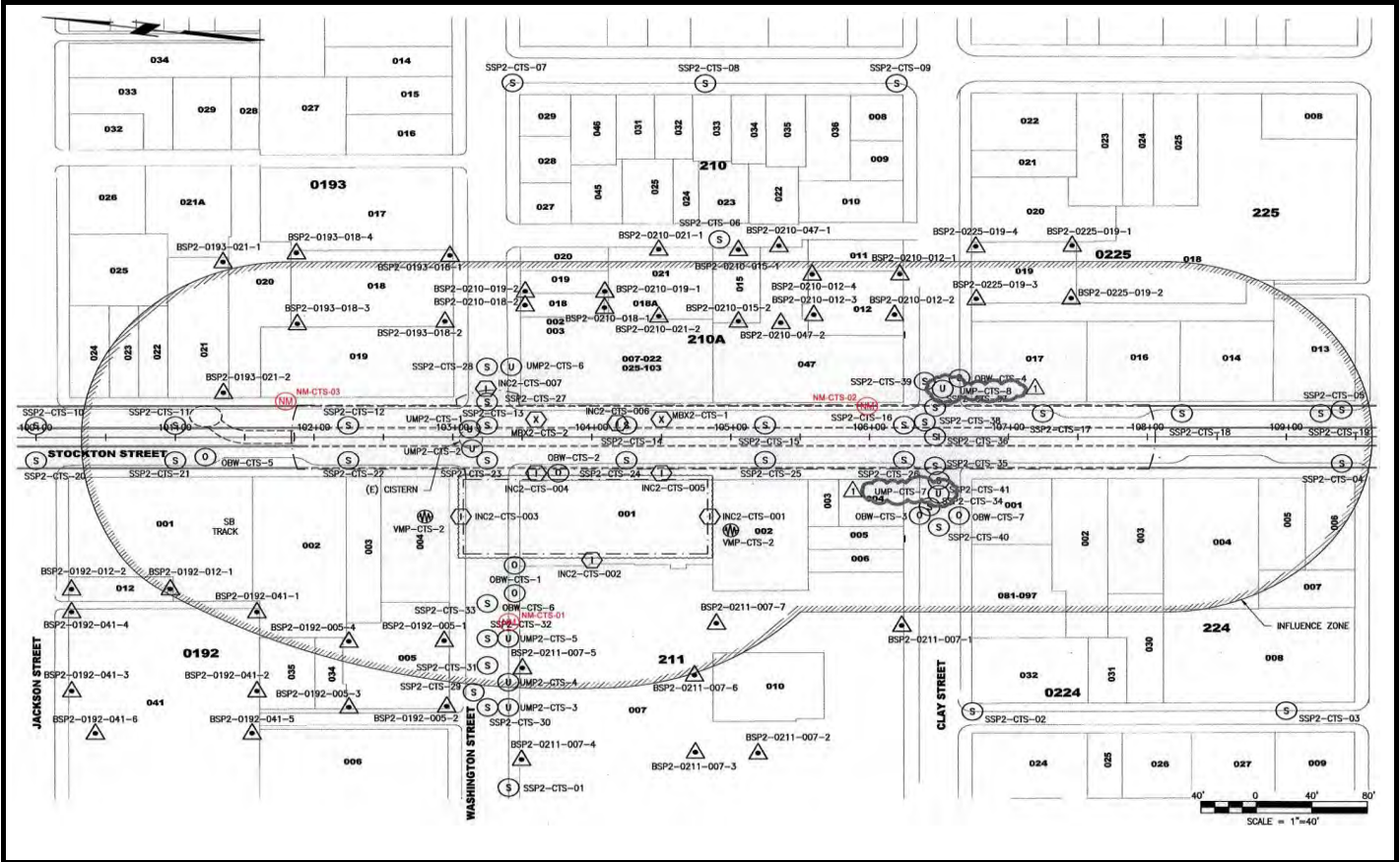
42 Washington Road, Princeton Junction, NJ 08550
Tel: (609) 750 8860 Fax: (609) 750 8870

Third Street Light Rail Central Subway, Contract No. 1300

DAILY NOISE REPORT

Date: 5/23/2014

Day of week: Friday



Monitoring Period	Day (M-F, 7 am to 8 pm)	Night (M-F, 8 pm to 7 am, & weekends)
Unit & Location	Maximum Leq (1-hour) in dB(A)	
Chinatown Station	77.6	56.7

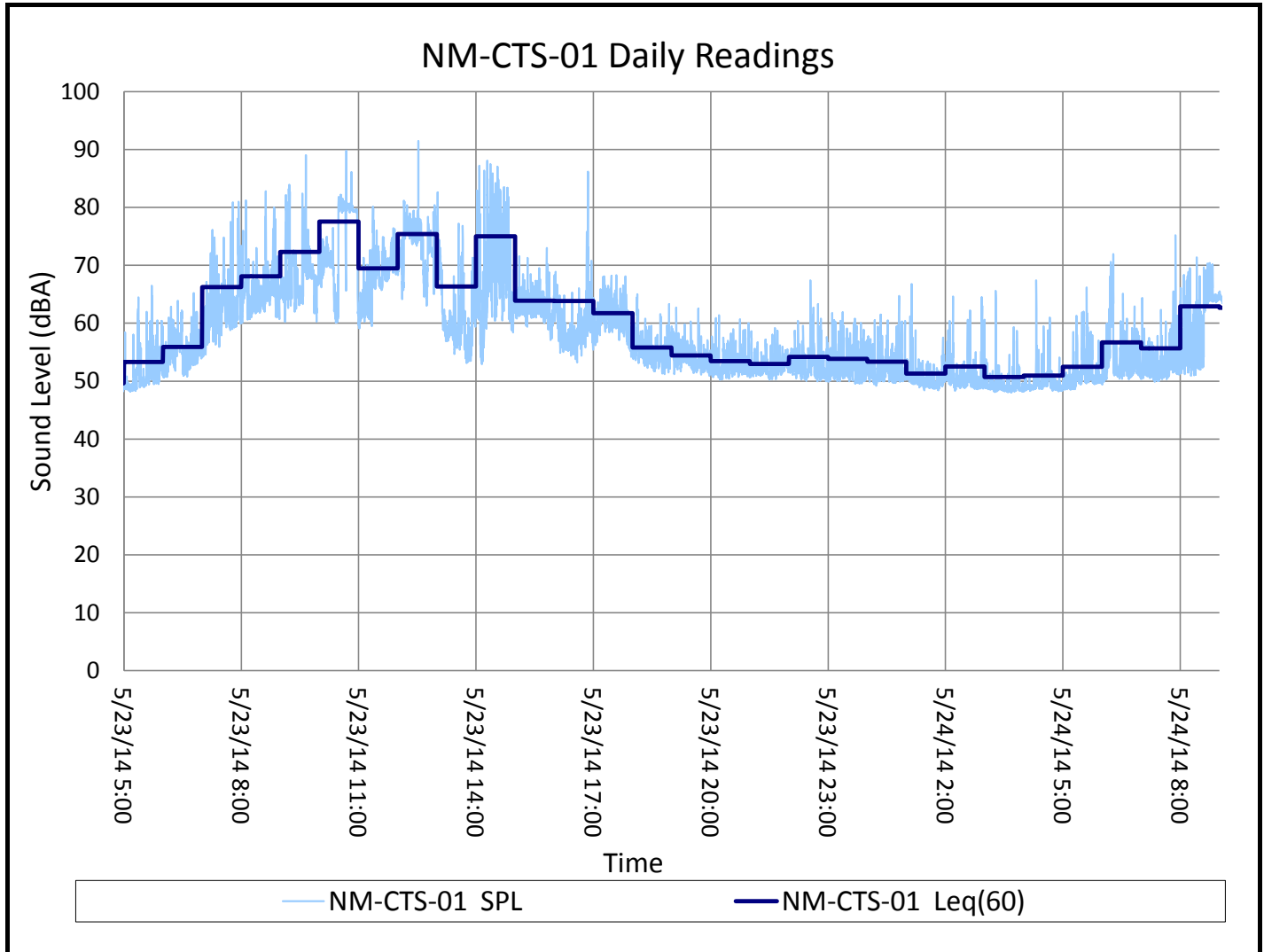
Notes:

Report prepared by: Michelle Morales



42 Washington Road, Princeton Junction, NJ 08550
Tel: (609) 750 8860 Fax: (609) 750 8870

Third Street Light Rail
Central Subway, Contract No. 1300
Chinatown Station Noise Report



WEATHER INFORMATION

Monitoring Period	Day (M-F, 7 am to 8 pm)	Night (M-F, 8 pm to 7 am, & weekends)
Description	Scattered clouds to mostly cloudy	Clear ranging to overcast
Temperature (Deg F)	Average: 63.1	Average: 57.4
Pressure (Inch Hg)	Average: 30	Average: 29.98
Relative Humidity (%)	Average: 69.1	Average: 80.2
Wind Speed (Mph)	Max: 19.6 / Direction: West	Max: 19.6 / Direction: West



42 Washington Road, Princeton Junction, NJ 08550
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**Third Street Light Rail Program Phase 2
Central Subway Project
Contract 1300**

Weekly Instrumentation Report
Seismograph

Instrumentation Location Plan Chinatown Station

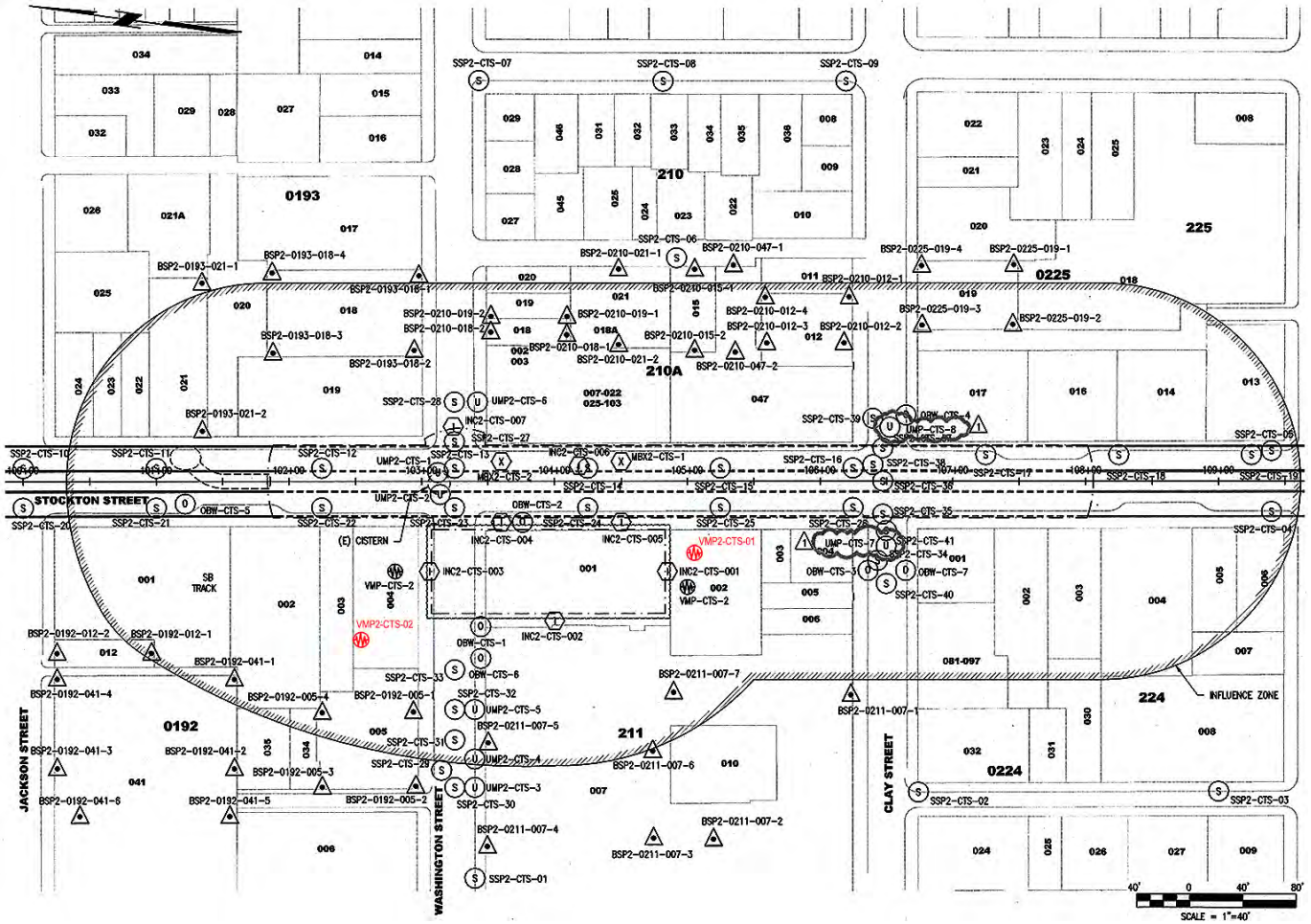
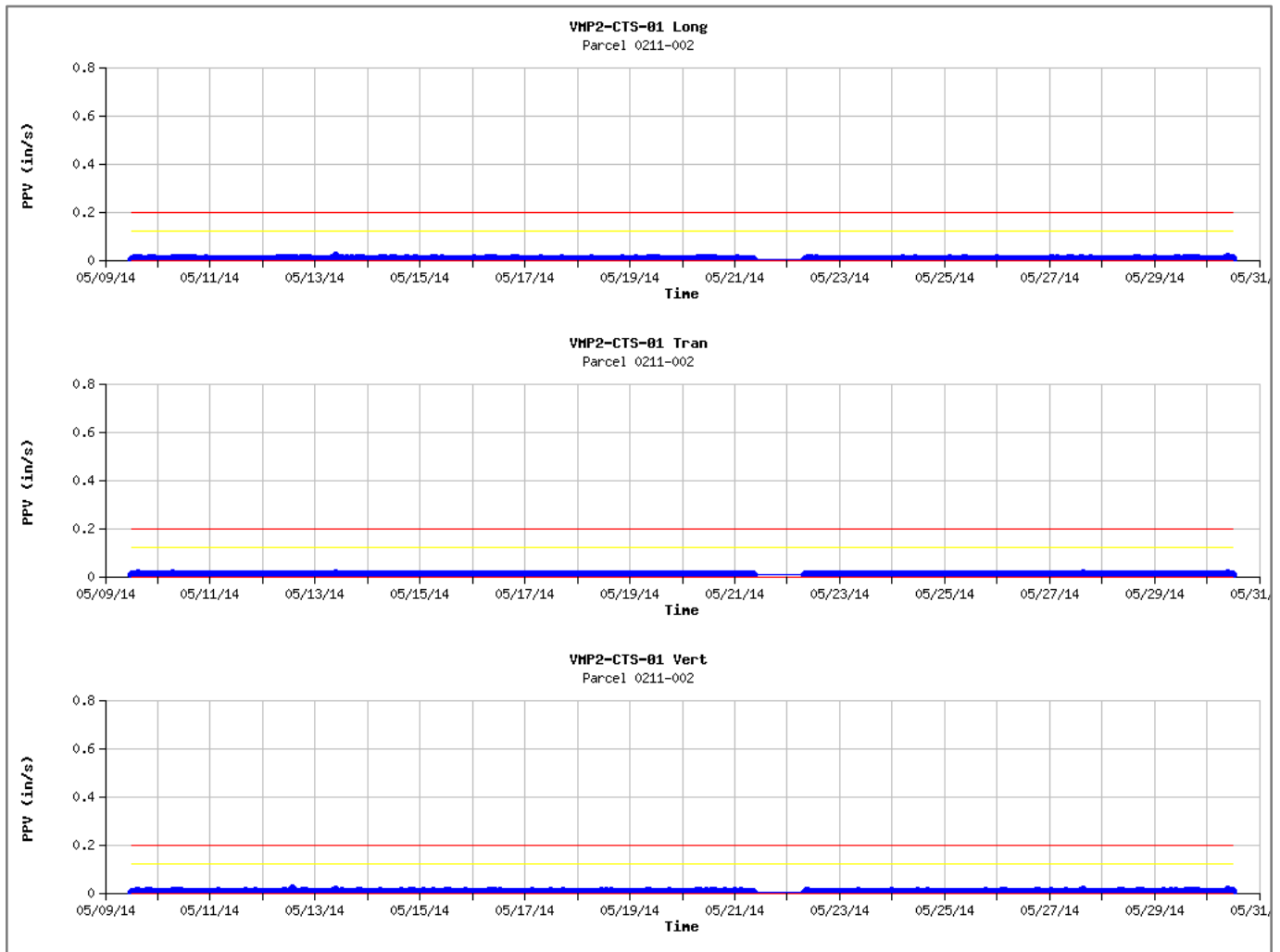


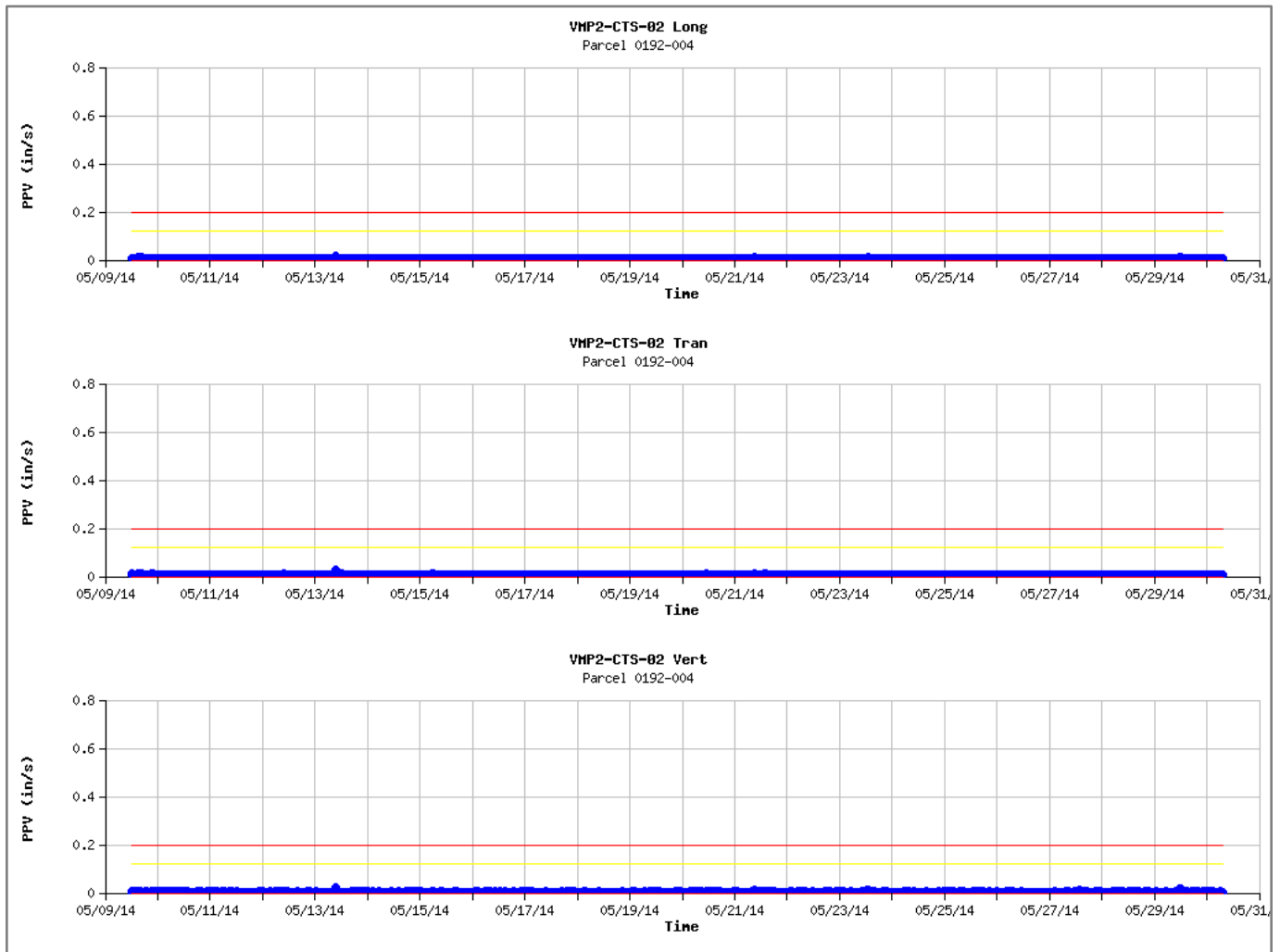
Table 12-1: Vibration Limits

<i>Location</i>	<i>Specific Restrictions</i>	<i>Peak Particle Velocity (in/s)</i>
Moscone Station	Continuous vibration (e.g. vibratory equipment, impact pile drivers)	0.20
	Nighttime construction activities	0.12
	Historic structures within 200 feet	0.12
	All others	0.20
UMS Station	Historic structures within 200 feet	0.12
	All others	0.20
Chinatown Station	Continuous vibration (e.g. vibratory equipment, impact pile drivers)	0.20
	Nighttime construction activities	0.12
	All others	0.20

Central Subway Station - Vibration Monitoring



Central Subway Station - Vibration Monitoring

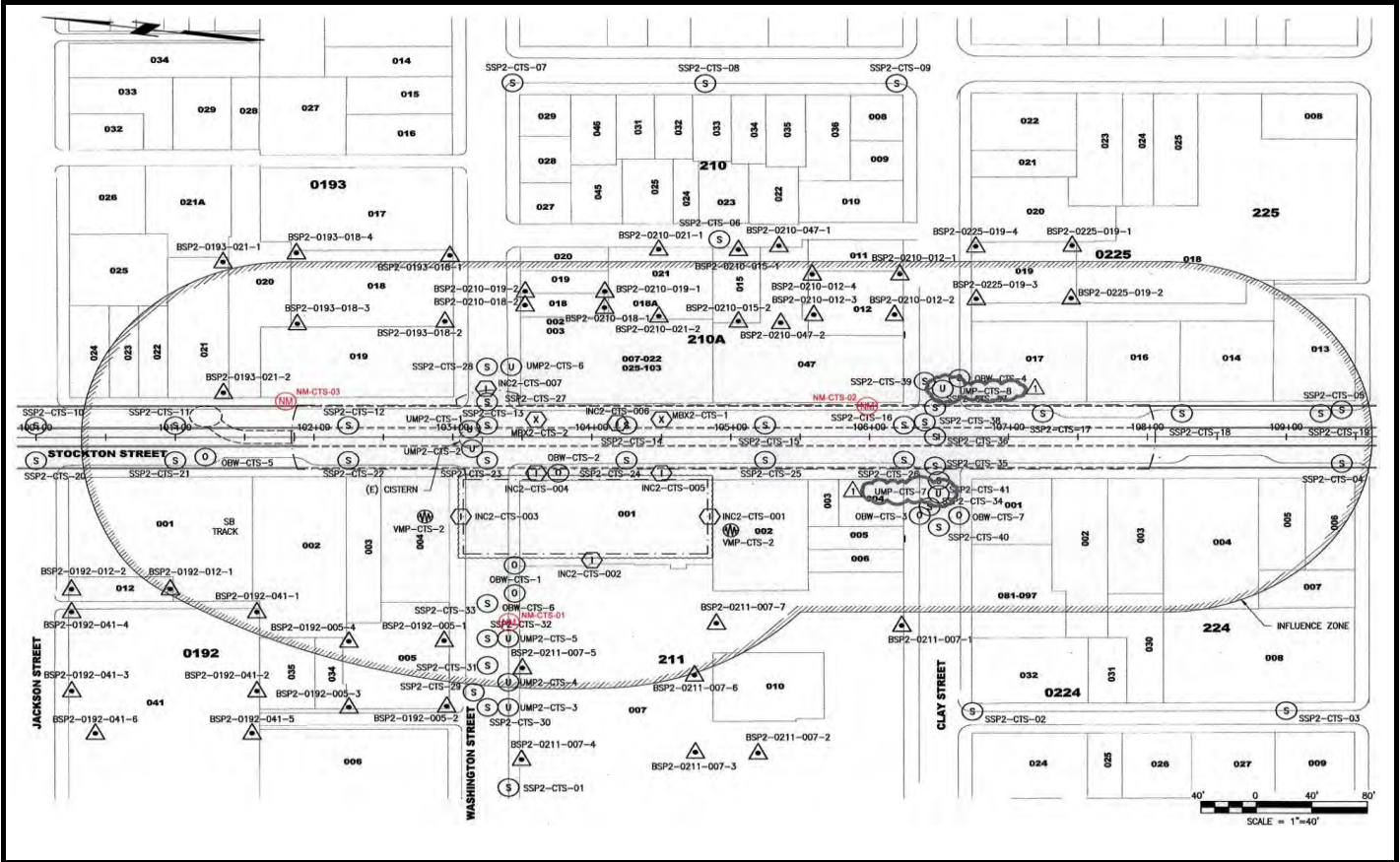


Third Street Light Rail Central Subway, Contract No. 1300

DAILY NOISE REPORT

Date: 5/26/2014

Day of week: Monday



Monitoring Period	Day (M-F, 7 am to 8 pm)	Night (M-F, 8 pm to 7 am, & weekends)
Unit & Location	Maximum Leq (1-hour) in dB(A)	
Chinatown Station	64	63.3

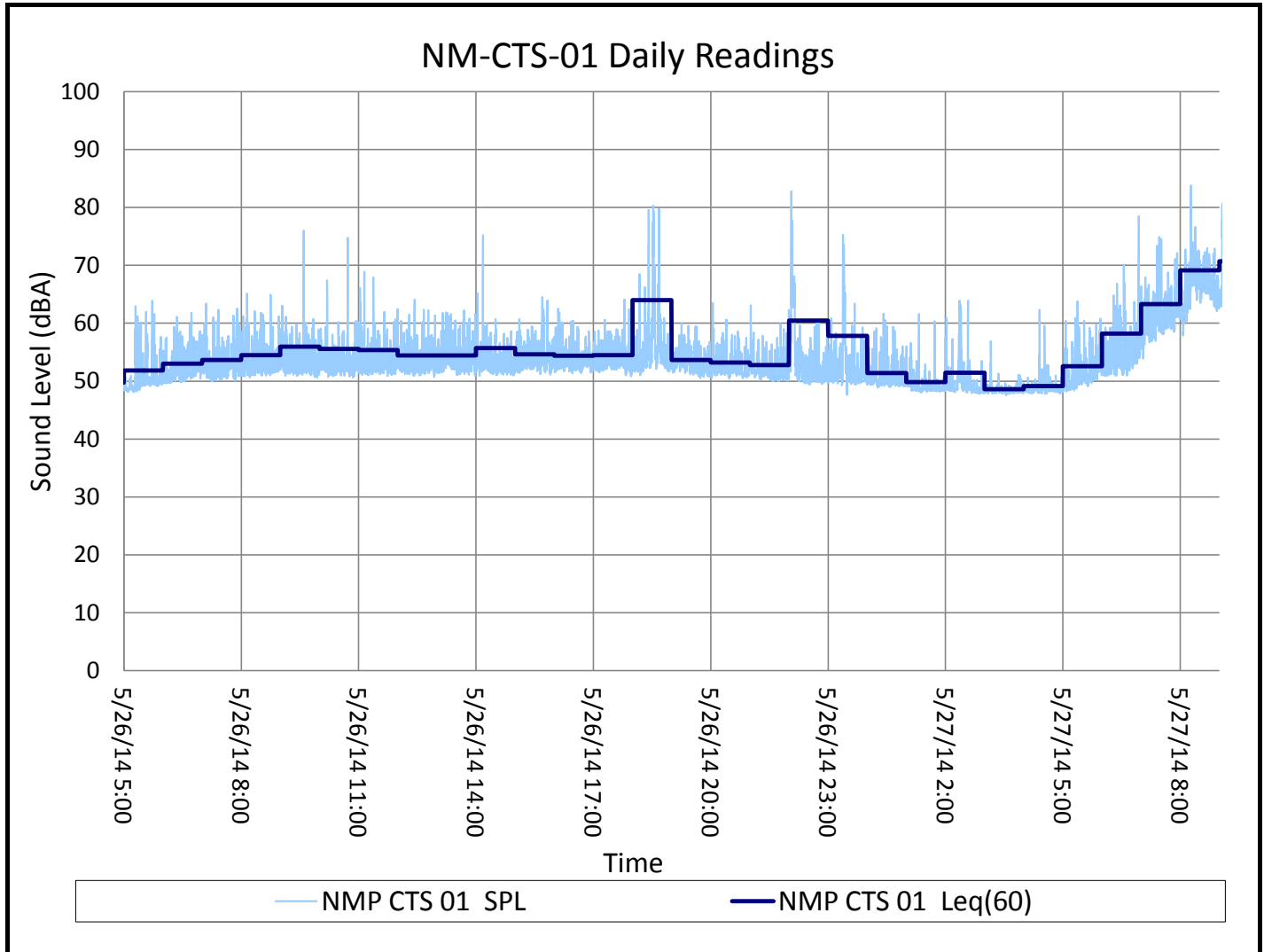
Notes:

Report prepared by: Michelle Morales



42 Washington Road, Princeton Junction, NJ 08550
Tel: (609) 750 8860 Fax: (609) 750 8870

Third Street Light Rail
 Central Subway, Contract No. 1300
 Chinatown Station Noise Report



WEATHER INFORMATION

Monitoring Period	Day (M-F, 7 am to 8 pm)	Night (M-F, 8 pm to 7 am, & weekends)
Description	Clear to partly cloudy	Clear to partly cloudy
Temperature (Deg F)	Average: 66.1	Average: 56
Pressure (Inch Hg)	Average: 30.01	Average: 30.03
Relative Humidity (%)	Average: 59.7	Average: 75.2
Wind Speed (Mph)	Max: 34.5 / Direction: West	Max: 21.9 / Direction: West



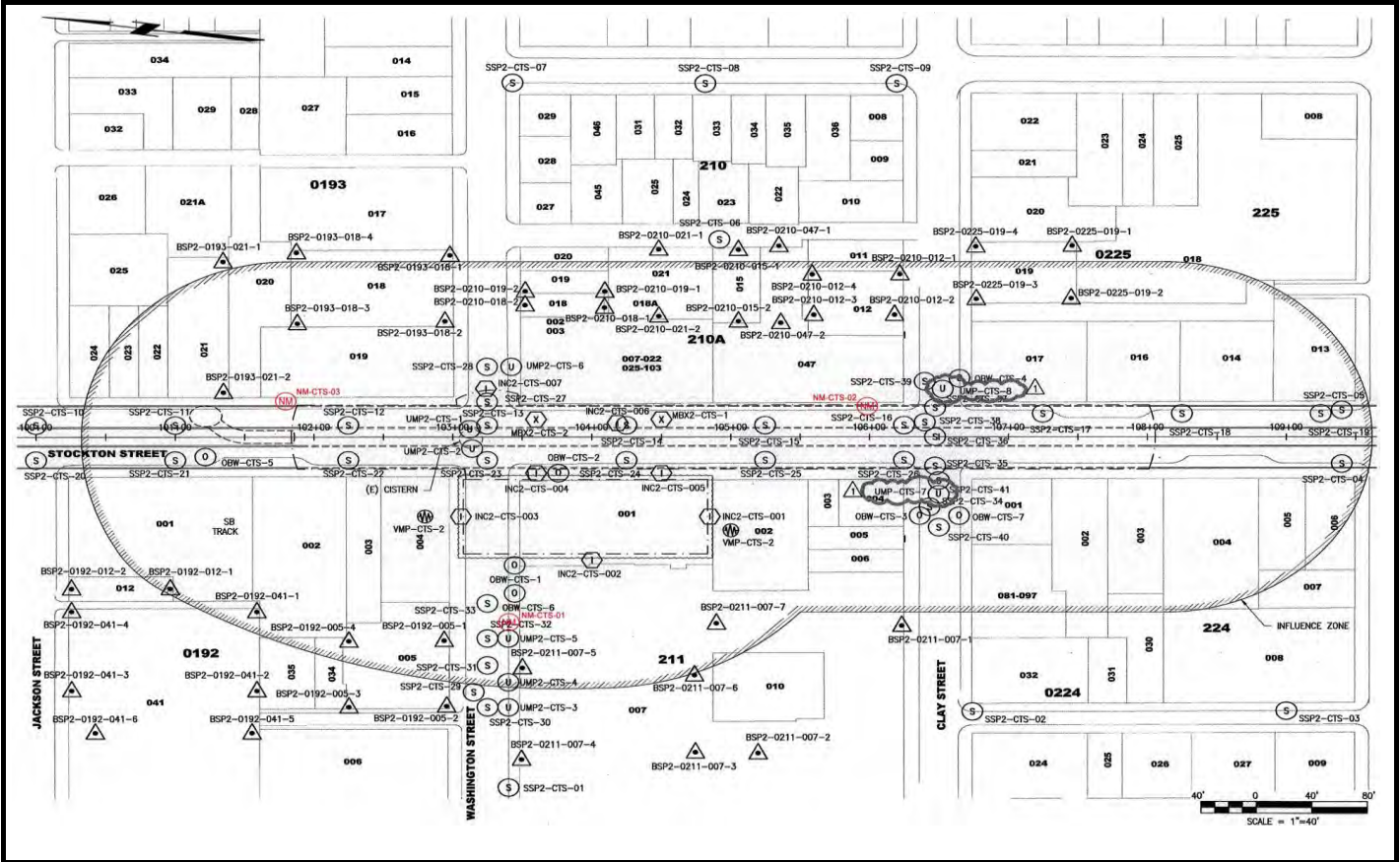
42 Washington Road, Princeton Junction, NJ 08550
 Tel: (609) 750 8860 Fax: (609) 750 8870

Third Street Light Rail Central Subway, Contract No. 1300

DAILY NOISE REPORT

Date: 5/27/2014

Day of week: Tuesday



Monitoring Period	Day (M-F, 7 am to 8 pm)	Night (M-F, 8 pm to 7 am, & weekends)
Unit & Location	Maximum Leq (1-hour) in dB(A)	
Chinatown Station	72.2	62.5

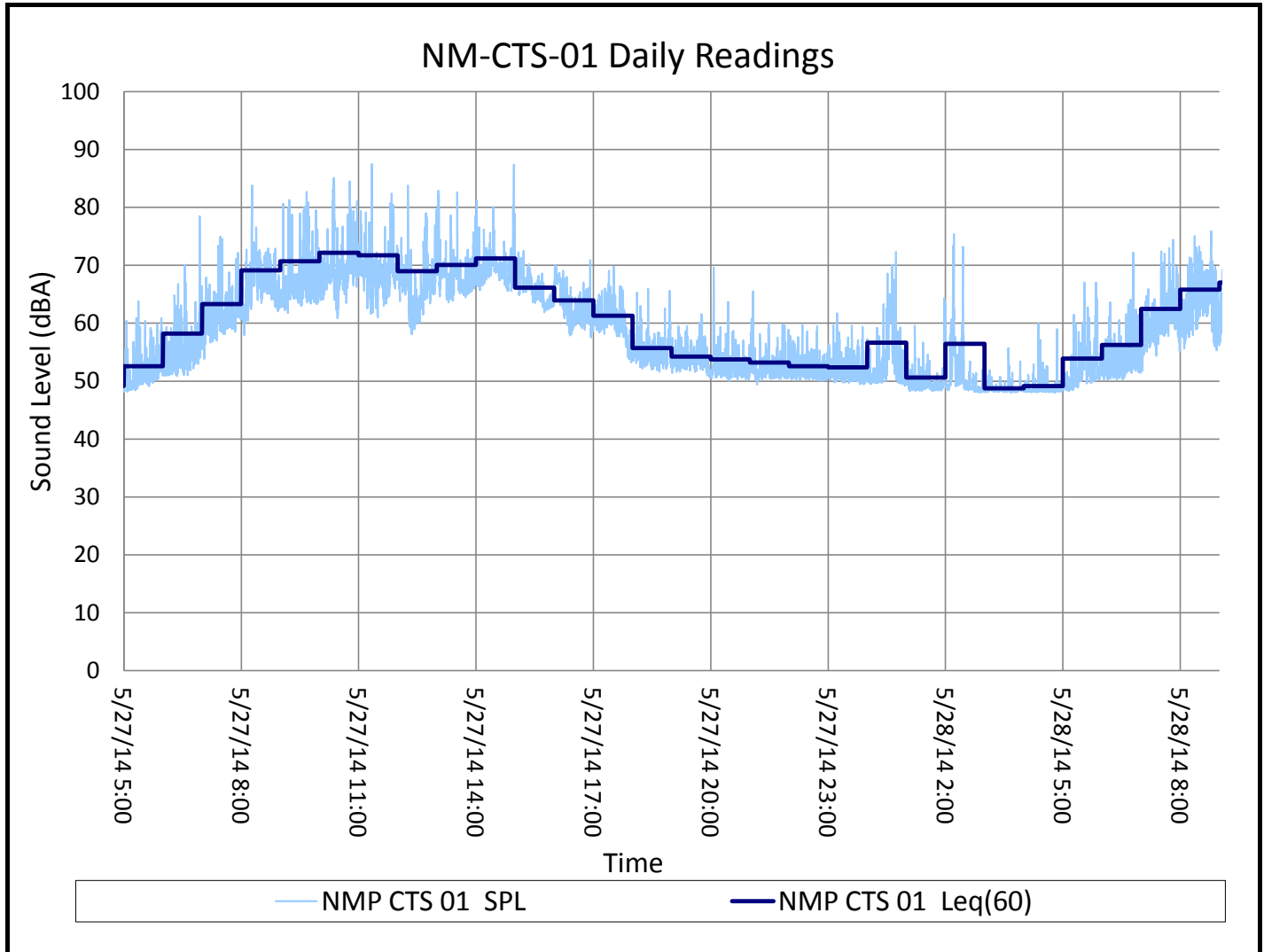
Notes:

Report prepared by: Michelle Morales



42 Washington Road, Princeton Junction, NJ 08550
Tel: (609) 750 8860 Fax: (609) 750 8870

Third Street Light Rail
 Central Subway, Contract No. 1300
 Chinatown Station Noise Report



WEATHER INFORMATION		
Monitoring Period	Day (M-F, 7 am to 8 pm)	Night (M-F, 8 pm to 7 am, & weekends)
Description	Clear to partly cloudy	Clear to partly cloudy
Temperature (Deg F)	Average: 62.9	Average: 54.4
Pressure (Inch Hg)	Average: 30.03	Average: 30.04
Relative Humidity (%)	Average: 55.3	Average: 70.7
Wind Speed (Mph)	Max: 28.8 / Direction: West	Max: 21.9 / Direction: West



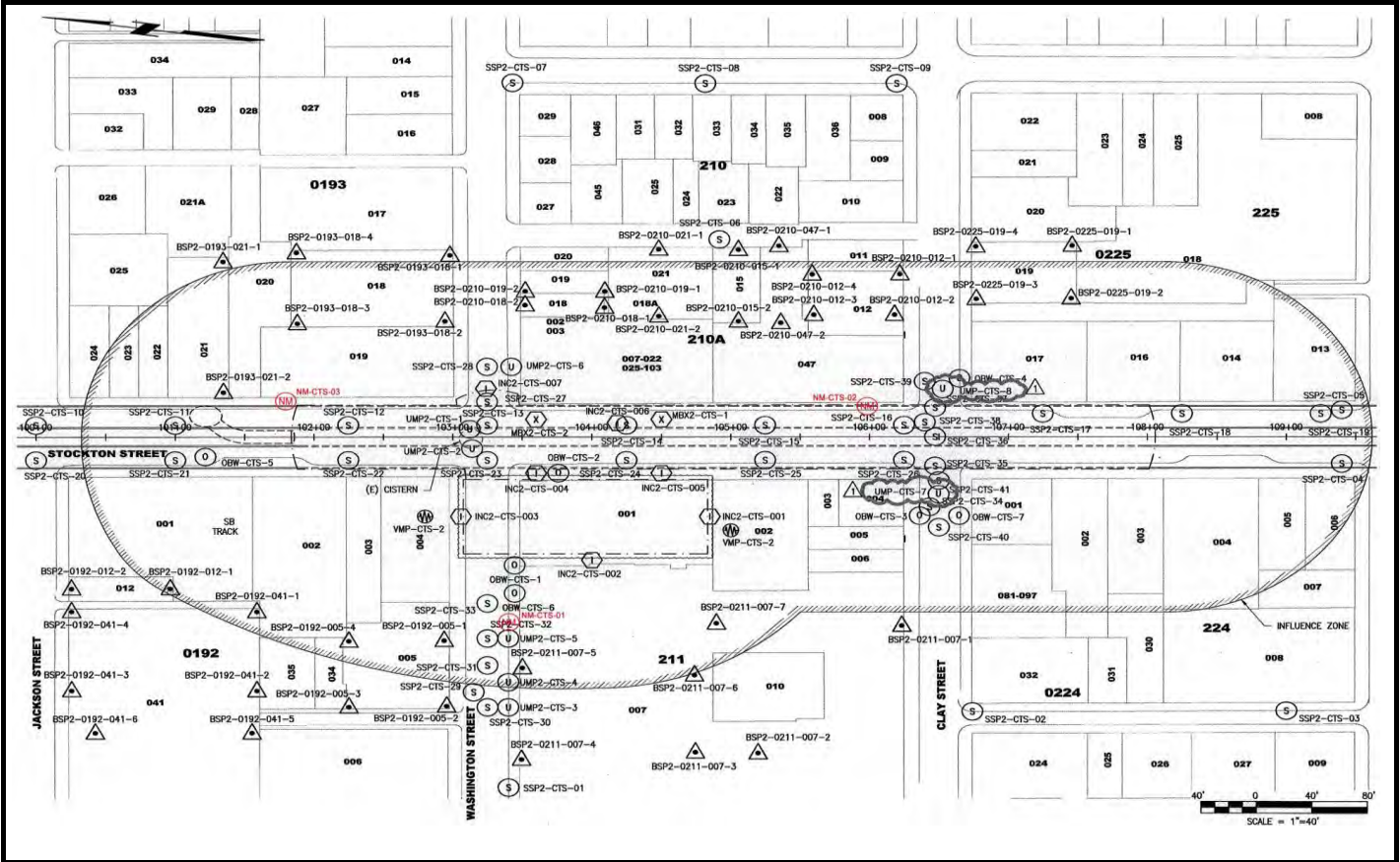
42 Washington Road, Princeton Junction, NJ 08550
 Tel: (609) 750 8860 Fax: (609) 750 8870

Third Street Light Rail Central Subway, Contract No. 1300

DAILY NOISE REPORT

Date: 5/28/2014

Day of week: Wednesday



Monitoring Period	Day (M-F, 7 am to 8 pm)	Night (M-F, 8 pm to 7 am, & weekends)
Unit & Location	Maximum Leq (1-hour) in dB(A)	
Chinatown Station	72.4	69.1

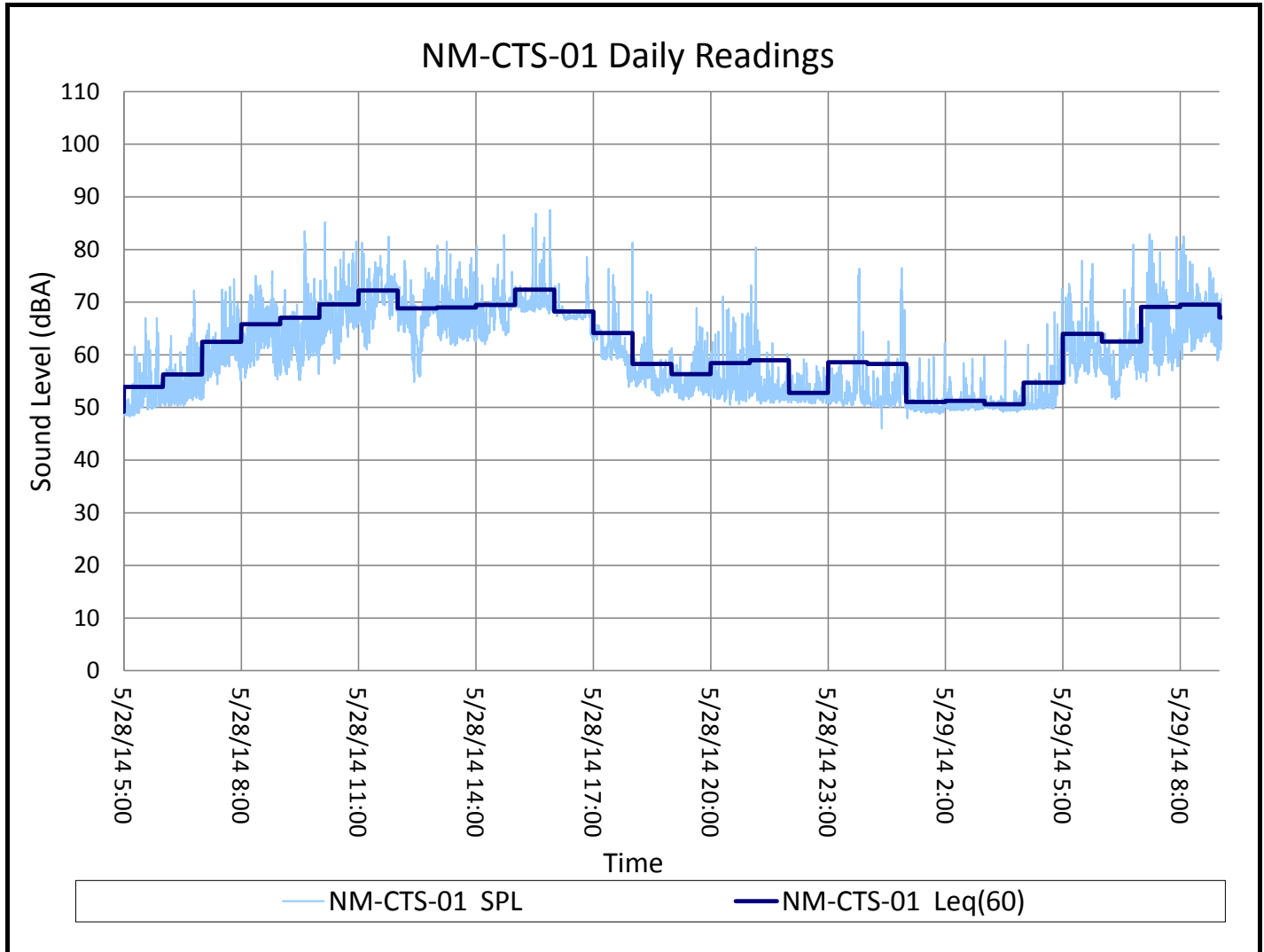
Notes:

Report prepared by: Michelle Morales



42 Washington Road, Princeton Junction, NJ 08550
Tel: (609) 750 8860 Fax: (609) 750 8870

Third Street Light Rail
Central Subway, Contract No. 1300
Chinatown Station Noise Report



WEATHER INFORMATION

Monitoring Period	Day (M-F, 7 am to 8 pm)	Night (M-F, 8 pm to 7 am, & weekends)
Description	Clear to partly cloudy	Clear to partly cloudy
Temperature (Deg F)	Average: 65.5	Average: 55.7
Pressure (Inch Hg)	Average: 30.03	Average: 29.95
Relative Humidity (%)	Average: 46.9	Average: 70.1
Wind Speed (Mph)	Max: 26.5 / Direction: West	Max: 13.8 / Direction: SSW



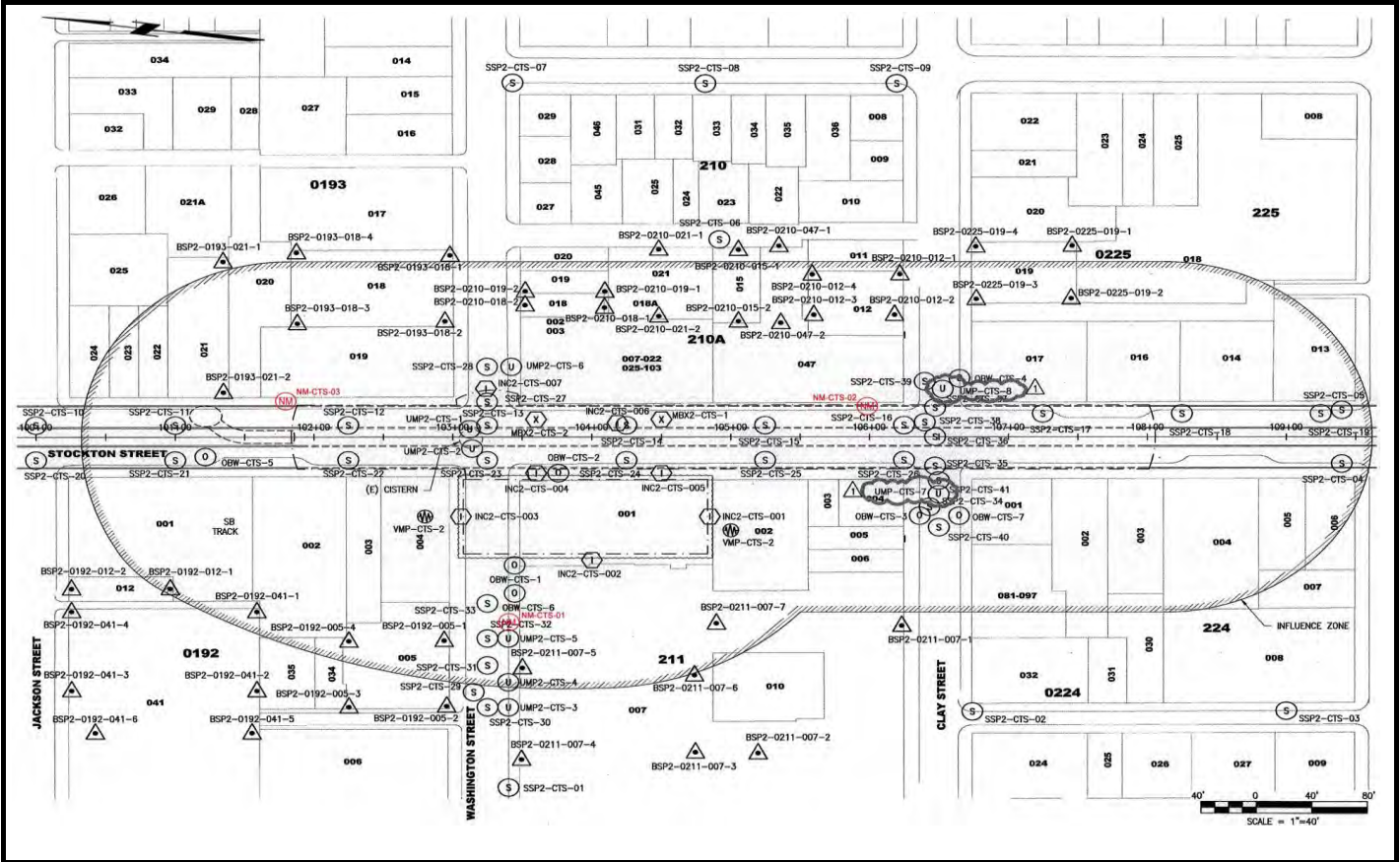
42 Washington Road, Princeton Junction, NJ 08550
Tel: (609) 750 8860 Fax: (609) 750 8870

Third Street Light Rail Central Subway, Contract No. 1300

DAILY NOISE REPORT

Date: 5/29/2014

Day of week: Thursday



Monitoring Period	Day (M-F, 7 am to 8 pm)	Night (M-F, 8 pm to 7 am, & weekends)
Unit & Location	Maximum Leq (1-hour) in dB(A)	
Chinatown Station	80.6	68

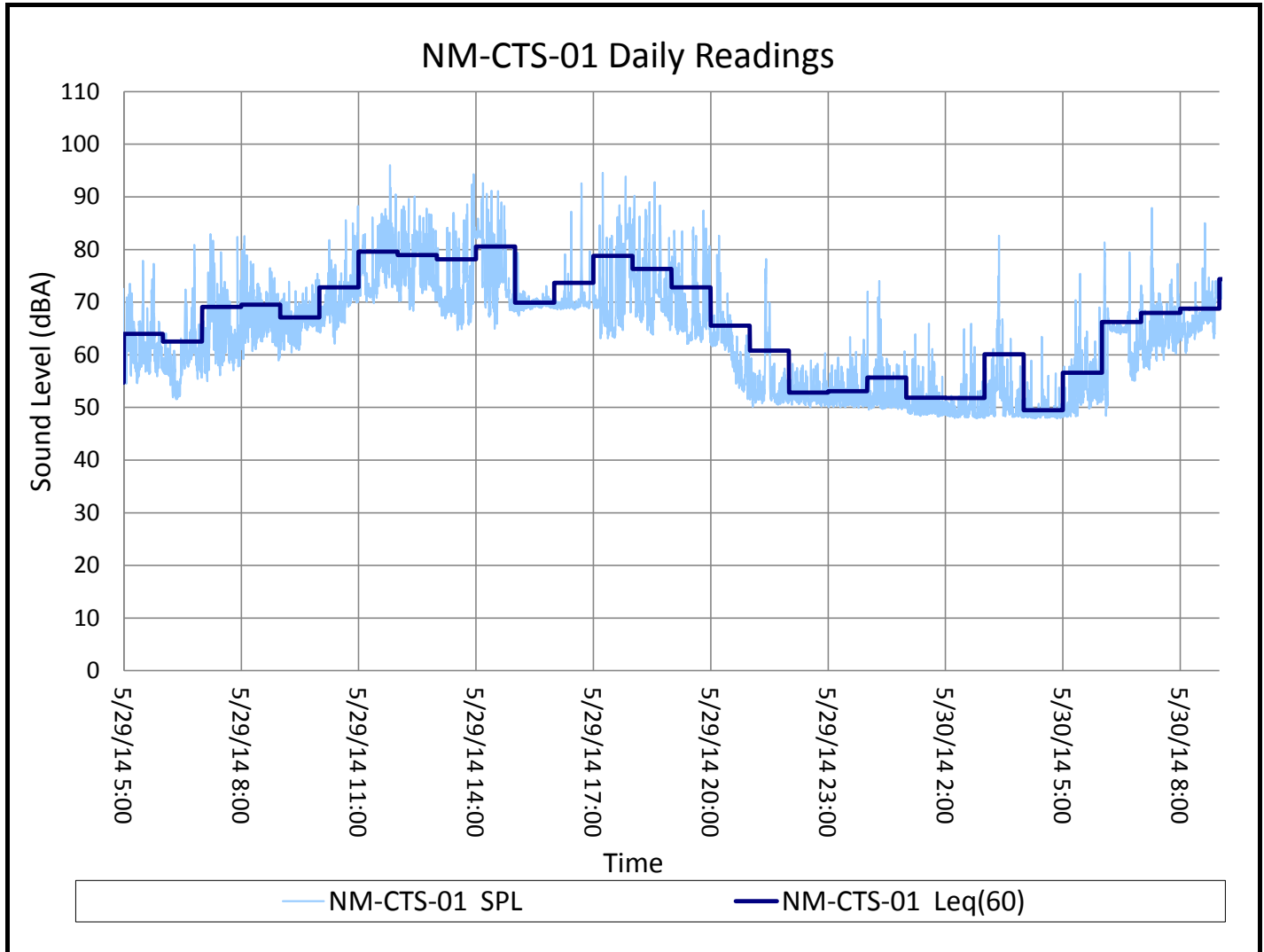
Notes:

Report prepared by: Michelle Morales



42 Washington Road, Princeton Junction, NJ 08550
Tel: (609) 750 8860 Fax: (609) 750 8870

Third Street Light Rail
Central Subway, Contract No. 1300
Chinatown Station Noise Report



WEATHER INFORMATION

Monitoring Period	Day (M-F, 7 am to 8 pm)	Night (M-F, 8 pm to 7 am, & weekends)
Description	Partly cloudy	Scattered clouds to mostly cloudy
Temperature (Deg F)	Average: 67.3	Average: 53.8
Pressure (Inch Hg)	Average: 29.94	Average: 29.94
Relative Humidity (%)	Average: 52.9	Average: 81.3
Wind Speed (Mph)	Max: 23 / Direction: SSW	Max: 13.8 / Direction: WSW



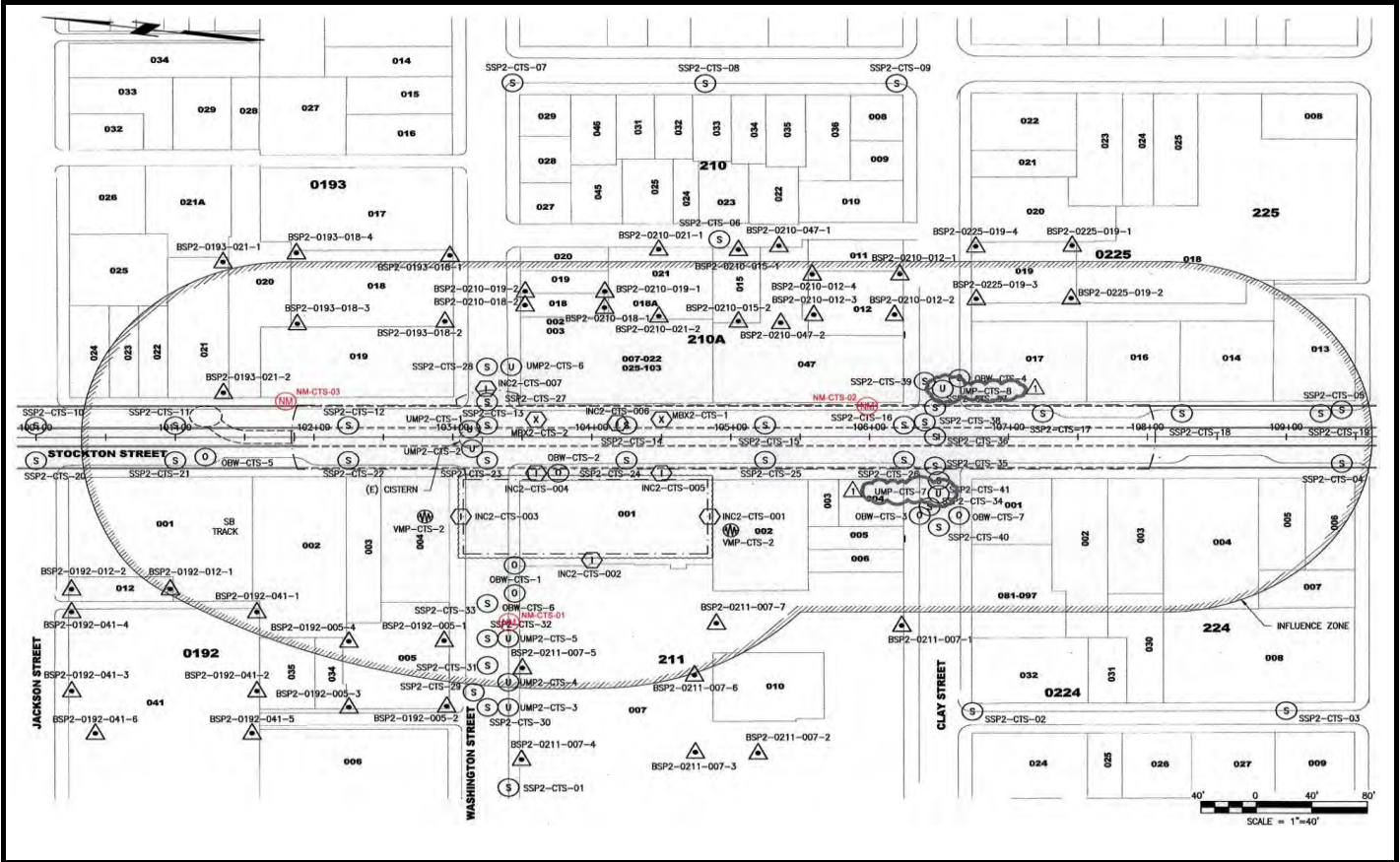
42 Washington Road, Princeton Junction, NJ 08550
Tel: (609) 750 8860 Fax: (609) 750 8870

Third Street Light Rail Central Subway, Contract No. 1300

DAILY NOISE REPORT

Date: 5/30/2014

Day of week: Friday



Monitoring Period	Day (M-F, 7 am to 8 pm)	Night (M-F, 8 pm to 7 am, & weekends)
Unit & Location	Maximum Leq (1-hour) in dB(A)	
Chinatown Station	80.8	62.2

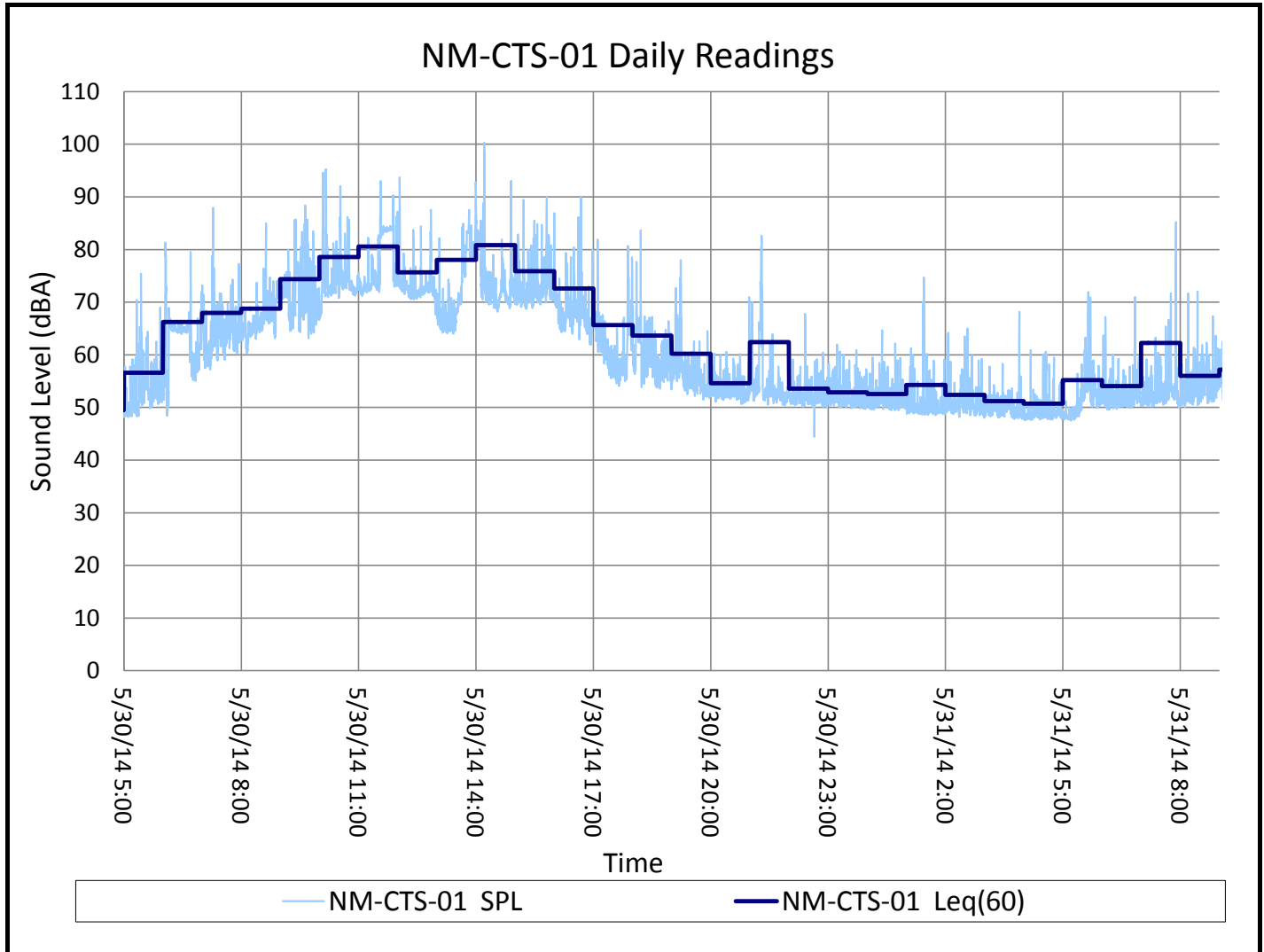
Notes:

Report prepared by: Michelle Morales



42 Washington Road, Princeton Junction, NJ 08550
Tel: (609) 750 8860 Fax: (609) 750 8870

Third Street Light Rail
 Central Subway, Contract No. 1300
 Chinatown Station Noise Report



WEATHER INFORMATION

Monitoring Period	Day (M-F, 7 am to 8 pm)	Night (M-F, 8 pm to 7 am, & weekends)
Description	Scattered clouds ranging to overcast	Overcast
Temperature (Deg F)	Average: 59.6	Average: 55.4
Pressure (Inch Hg)	Average: 29.97	Average: 29.97
Relative Humidity (%)	Average: 68	Average: 81.7
Wind Speed (Mph)	Max: 24.2 / Direction: West	Max: 12.7 / Direction: WSW



42 Washington Road, Princeton Junction, NJ 08550
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**Third Street Light Rail Program Phase 2
Central Subway Project
Contract 1300**

Weekly Instrumentation Report
Seismograph

Instrumentation Location Plan Chinatown Station

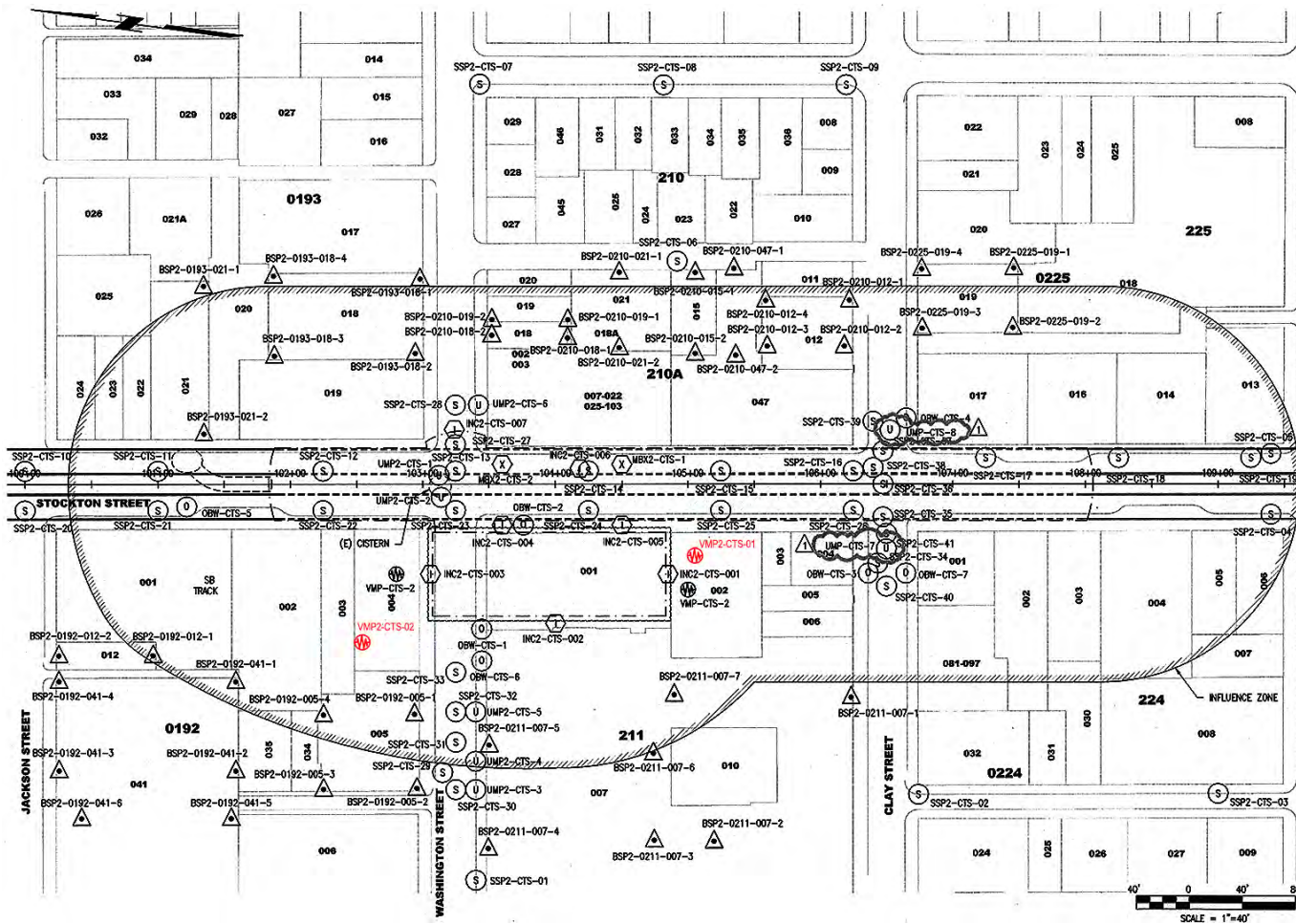
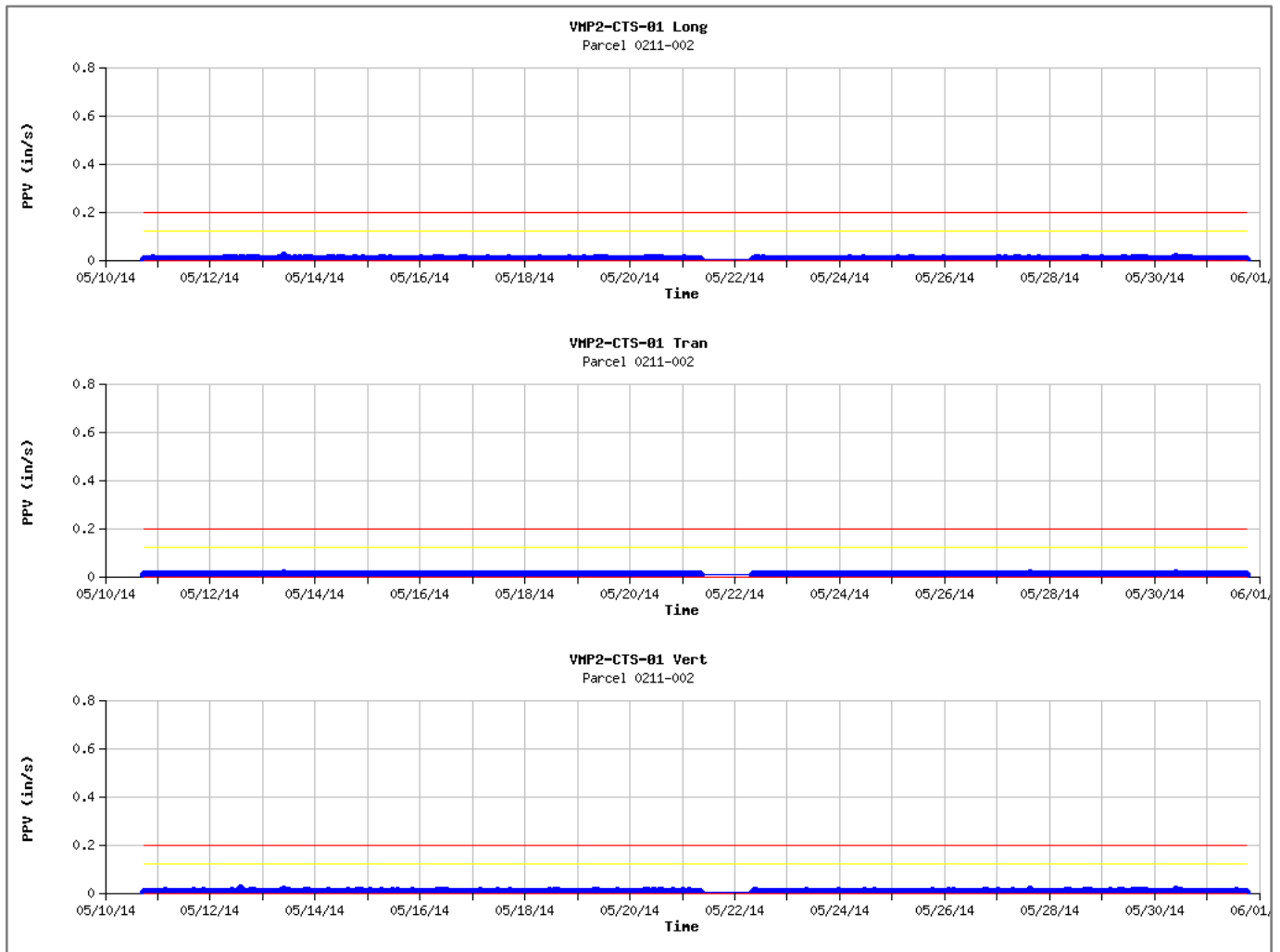


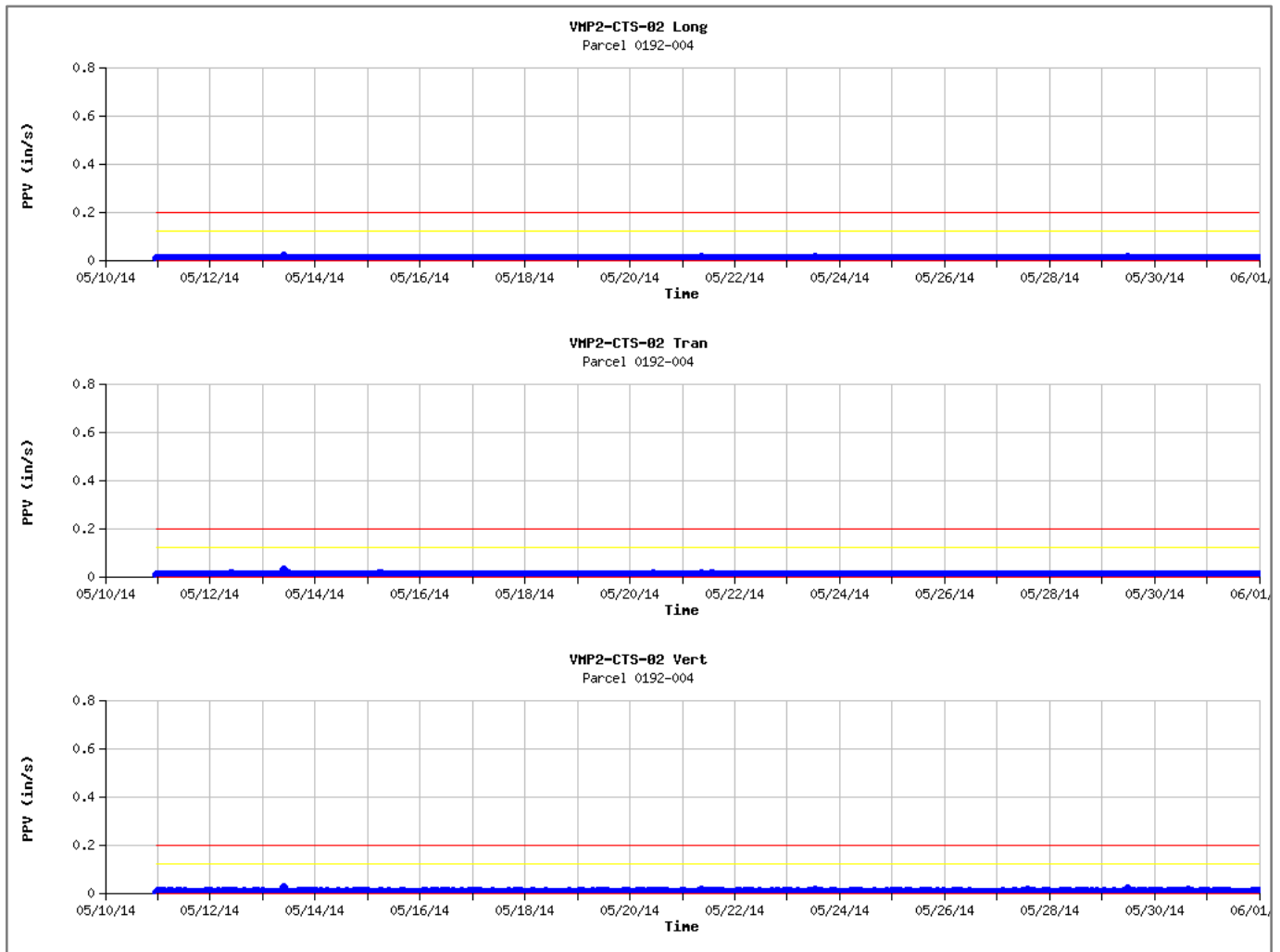
Table 12-1: Vibration Limits

<i>Location</i>	<i>Specific Restrictions</i>	<i>Peak Particle Velocity (in/s)</i>
Moscone Station	Continuous vibration (e.g. vibratory equipment, impact pile drivers)	0.20
	Nighttime construction activities	0.12
	Historic structures within 200 feet	0.12
	All others	0.20
UMS Station	Historic structures within 200 feet	0.12
	All others	0.20
Chinatown Station	Continuous vibration (e.g. vibratory equipment, impact pile drivers)	0.20
	Nighttime construction activities	0.12
	All others	0.20

Central Subway Station - Vibration Monitoring



Central Subway Station - Vibration Monitoring





14N-0068

Night Noise Authorization Permit

Address : Multiple Locations

Cost: \$115.63

Block: Lot: Zip:

No work with high impact tools after 10:00 PM plus any avoidable noise to be avoided such as shouting or leaving trucks idling if not being used

Pursuant to the provisions of Section 2908 of the Police Code, the Director of Public Works having determined that the kind of work to be done will not emit noises to cause significant disturbance, will cause less traffic safety problems at night than during the daytime, and is in the general public interest, hereby grants permission, revocable at his will, to work at night at the following location(s):

Permittee

Name: Tutor Perini Corporation

Address: 15901 Olden Street Sylmar, CA 91342

Contact: Paul Chamanadjian

Phone: (818) 822-1792

Conditions

Start Date 3/10/2014

End Date 9/10/2014

Equipment Drill rig, back hoe, crane (mobile), excavator, generator, slurry machine, hydrovac truck, husquarna6100D flat saw, 2x6 cat skidsteer

Hours 8:00PM - 7:00AM

Type of Work AWSS, slurry wall & dewatering wells (Drilling & Boring)

Contact247 Bob Belzer (818) 822-1792

Associated Permit 14EXC-0540

Inspection This permit is invalid until the permittee contacts DPW at 554-5870 to activate the permit and schedule an inspection at least 72 hours prior to work. Failure to comply with the stated conditions will render this permit null and void.

The undersigned Permittee hereby agrees to comply with all requirements and conditions noted on this permit

Insurance Expiration Date : 06/17/2018

Approved Date : 03/10/2014

Applicant/Permittee

Date

Printed : 3/10/2014 4:47:21 PM

Plan Checker

Rene Lopez

REQUIREMENTS

The permittee shall notify the occupants of the buildings in the vicinity of the proposed night work.

The permittee shall obtain any other required permits.

HOLD HARMLESS CLAUSE

In consideration of this Permit being issued for the work described in the application, Permittee on its behalf and that of any successor or assign, and on behalf of any lessee, promises and agrees to perform all the terms of this Permit and to comply with all applicable laws, ordinances and regulations.

Permittee agrees on its behalf and that of any successor or assign to hold harmless, defend, and indemnify the City and County of San Francisco, including, without limitation, each of its commissions, departments, officers, agents and employees (hereinafter collectively referred to as the "City") from and against any and all losses, liabilities, expenses, claims, demands, injuries, damages, fines, penalties, costs or judgments including, without limitation, attorneys' fees and costs (collectively, "claims") of any kind allegedly arising directly or indirectly from (i) any act by, omission by, or negligence of, Permittee or its subcontractors, or the officers, agents, or employees of either, while engaged in the performance of the work authorized by this Permit, or while in or about the property subject to this Permit for any reason connected in any way whatsoever with the performance of the work authorized by this Permit, or allegedly resulting directly or indirectly from the maintenance or installation of any equipment, facilities or structures authorized under this Permit, (ii) any accident or injury to any contractor or subcontractor, or any officer, agent, or employee of either of them, while engaged in the performance of the work authorized by this Permit, or while in or about the property, for any reason connected with the performance of the work authorized by this Permit, or arising from liens or claims for services rendered or labor or materials furnished in or for the performance of the work authorized by this Permit, (iii) injuries or damages to real or personal property, good will, and persons in, upon or in any way allegedly connected with the work authorized by this Permit from any cause or claims arising at any time, and (iv) any release or discharge, or threatened release or discharge, of any hazardous material caused or allowed by Permittee in, under, on or about the property subject to this Permit or into the environment. As used herein, "hazardous material" means any substance, waste or material which, because of its quantity, concentration of physical or chemical characteristics is deemed by any federal, state, or local governmental authority to pose a present or potential hazard to human health or safety or to the environment.

Permittee must hold harmless, indemnify and defend the City regardless of the alleged negligence of the City or any other party, except only for claims resulting directly from the sole negligence or willful misconduct of the City. Permittee specifically acknowledges and agrees that it has an immediate and independent obligation to defend the City from any claim which actually or potentially falls within this indemnity provision, even if the allegations are or may be groundless, false or fraudulent, which obligation arises at the time such claim is tendered to Permittee by the City and continues at all times thereafter. Permittee agrees that the indemnification obligations assumed under this Permit shall survive expiration of the Permit or completion of work.

Permittee shall obtain and maintain through the terms of this Permit general liability, automobile liability or workers' compensation insurance as the City deems necessary to protect the City against claims for damages for personal injury, accidental death and property damage allegedly arising from any work done under this Permit. Such insurance shall in no way limit Permittee's indemnity hereunder. Certificates of insurance, in form and with insurers satisfactory to the City, evidencing all coverages above shall be furnished to the City before commencing any operations under this Permit, with complete copies of policies furnished promptly upon City request.

Special Conditions

14N-0068

Conditions

No work with high impact tools after 10:00 PM plus any avoidable noise to be avoided such as shouting or leaving trucks idling if not being used

Permit Addresses

14N-0068

*RW = RockWheel, SMC = Surface Mounted Cabinets, S/W = Sidewalk Work, DB = Directional Boring, BP= Reinforced Concrete Bus Pad, UB = Reinforced Concrete for Utility Pull Boxes and Curb Ramps

Number of blocks: 3 Total repair size:0 sqft Total Streetspace: Total Sidewalk: sqft

ID	Street Name	From St	To St	Sides	*Other	Asphalt	Concrete	Street Space Feet	Sidewalk Feet
1	STOCKTON ST	SACRAMENTO ST \ STOCKTON TUNL	CLAY ST	Both	RW : False SMC : False S/W Only : False DB: False BP: False UB: False	0	0		
2		CLAY ST	WASHINGTON ST	Both	RW : False SMC : False S/W Only : False DB: False BP: False UB: False	0	0		
3		WASHINGTON ST	JACKSON ST	Both	RW : False SMC : False S/W Only : False DB: False BP: False UB: False	0	0		
Total						0	0		

Exceptions

14N-0068

Street Name	From St	To St	Message	Job	Contact	Dates
STOCKTON ST						
CLAY ST		WASHINGTON ST -	Conflict with existing Street Use Permit.	12BW-0042	Refer to Agent - Refer to Agent	
CLAY ST		WASHINGTON ST -	Conflict with existing Street Use Permit.	12BW-0045	Refer to Agent - Refer to Agent	
SACRAMENTO ST \ STOCKTON TUNL	CLAY ST -		Conflict with existing Street Use Permit.	12BW-0045	Refer to Agent - Refer to Agent	
CLAY ST		WASHINGTON ST -	Conflict with existing Street Use Permit.	12BW-0061	Refer to Agent - Refer to Agent	
WASHINGTON ST		JACKSON ST -	Conflict with existing Street Use Permit.	12BW-0064	Refer to Agent - Refer to Agent	
CLAY ST		WASHINGTON ST -	Conflict with existing Street Use Permit.	13B-0009	Refer to Agent - Refer to Agent	Apr 17 2013-Apr 17 2014
SACRAMENTO ST \ STOCKTON TUNL	CLAY ST -		Conflict with existing Street Use Permit.	13B-0009	Refer to Agent - Refer to Agent	Apr 17 2013-Apr 17 2014
WASHINGTON ST		JACKSON ST -	Conflict with existing Street Use Permit.	13B-0009	Refer to Agent - Refer to Agent	Apr 17 2013-Apr 17 2014
WASHINGTON ST		JACKSON ST -	Conflict with existing Street Use Permit.	13D-0281	Refer to Agent - Refer to Agent	Jun 16 2013-Jun 15 2014
CLAY ST		WASHINGTON ST -	Conflict with existing Street Use Permit.	13D-0319	Refer to Agent - Refer to Agent	Jun 16 2013-Jun 15 2014
WASHINGTON ST		JACKSON ST -	Conflict with existing Street Use Permit.	13ECN-0043	Refer to Agent - Refer to Agent	Jan 14 2013-
CLAY ST		WASHINGTON ST -	Conflict with existing Street Use Permit.	14B-0001	(415) 431-2950 - (415) 431-2950	Jan 15 2014-May 12 2014
SACRAMENTO ST \ STOCKTON TUNL	CLAY ST -		Conflict with existing Street Use Permit.	14B-0001	(415) 431-2950 - (415) 431-2950	Jan 15 2014-May 12 2014
WASHINGTON ST		JACKSON ST -	Conflict with existing Street Use Permit.	14B-0001	(415) 431-2950 - (415) 431-2950	Jan 15 2014-May 12 2014
CLAY ST		WASHINGTON ST -	Conflict with existing Street Use Permit.	14B-0005	Refer to Agent - Refer to Agent	Jan 20 2014-Jan 20 2015
SACRAMENTO ST \ STOCKTON TUNL	CLAY ST -		Conflict with existing Street Use Permit.	14B-0005	Refer to Agent - Refer to Agent	Jan 20 2014-Jan 20 2015
WASHINGTON ST		JACKSON ST -	Conflict with existing Street Use Permit.	14B-0005	Refer to Agent - Refer to Agent	Jan 20 2014-Jan 20 2015
WASHINGTON ST		JACKSON ST -	Conflict with existing Street Use Permit.	14D-0007	Refer to Agent - Refer to Agent	Jan 8 2014-Jun 15 2014
CLAY ST		WASHINGTON ST -	Conflict with existing excavation permit. It is mandatory that you coordinate all work for joint paving.	14EXC-0540	(415) 819-8549 - (415) 819-8549	Jan 27 2014-Dec 31 2018
SACRAMENTO ST \ STOCKTON TUNL	CLAY ST -		Conflict with existing excavation permit. It is mandatory that you coordinate all work for joint paving.	14EXC-0540	(415) 819-8549 - (415) 819-8549	Jan 27 2014-Dec 31 2018
WASHINGTON ST		JACKSON ST -	Conflict with existing excavation permit. It is mandatory that you coordinate all work for joint paving.	14EXC-0540	(415) 819-8549 - (415) 819-8549	Jan 27 2014-Dec 31 2018
CLAY ST		WASHINGTON ST -	Banners are allowed on this street	N/A		

"IMPROVING THE QUALITY OF LIFE IN SAN FRANCISCO" We are dedicated individuals committed to teamwork, customer service and continuous improvement in partnership with the community.

Customer Service

Teamwork

Continuous Improvement

Street Name	From St	To St	Message	Job	Contact	Dates
	CLAY ST	WASHINGTON ST -	Blocks with Bicycle Route designations require special attention. For details see Section 10 of DPT's Blue Book and Section 6.3 of DPW's Order No. 171.442.	N/A		
	CLAY ST	WASHINGTON ST -	DPT Blue Book Traffic Restriction. Time of day during which lanes must be kept clear: EAST 7AM - 7PM EVERYDAY // WEST 7AM - 7PM EVERYDAY	N/A		
	CLAY ST	WASHINGTON ST -	Please refer to Figure 12 of Section 9.4(A) of the DPW Order No. 171,442 for special conditions for excavation in the vicinity of AWSS.	N/A		
	CLAY ST	WASHINGTON ST -	Under G095 requirement, Contractor shall contact Muni Overhead Line Division of any work 10 feet in horizontal or vertical direction of overhead lines. Contact: Tim Lipps @ (415) 554-9227	N/A		
	SACRAMENTO ST \ STOCKTON TUNL	CLAY ST -	Banners are allowed on this street	N/A		
	SACRAMENTO ST \ STOCKTON TUNL	CLAY ST -	Blocks with Bicycle Route designations require special attention. For details see Section 10 of DPT's Blue Book and Section 6.3 of DPW's Order No. 171.442.	N/A		
	SACRAMENTO ST \ STOCKTON TUNL	CLAY ST -	DPT Blue Book Traffic Restriction. Time of day during which lanes must be kept clear: EAST 7AM - 7PM EVERYDAY // WEST 7AM - 7PM EVERYDAY	N/A		
	SACRAMENTO ST \ STOCKTON TUNL	CLAY ST -	Please refer to Figure 12 of Section 9.4(A) of the DPW Order No. 171,442 for special conditions for excavation in the vicinity of AWSS.	N/A		
	SACRAMENTO ST \ STOCKTON TUNL	CLAY ST -	Under G095 requirement, Contractor shall contact Muni Overhead Line Division of any work 10 feet in horizontal or vertical direction of overhead lines. Contact: Tim Lipps @ (415) 554-9227	N/A		
	WASHINGTON ST	JACKSON ST -	Banners are allowed on this street	N/A		
	WASHINGTON ST	JACKSON ST -	Blocks with Bicycle Route designations require special attention. For details see Section 10 of DPT's Blue Book and Section 6.3 of DPW's Order No. 171.442.	N/A		
	WASHINGTON ST	JACKSON ST -	DPT Blue Book Traffic Restriction. Time of day during which lanes must be kept clear: EAST 7AM - 7PM EVERYDAY // WEST 7AM - 7PM EVERYDAY	N/A		

Street Name	From St	To St	Message	Job	Contact	Dates
	WASHINGTON ST	JACKSON ST -	Under G095 requirement, Contractor shall contact Muni Overhead Line Division of any work 10 feet in horizontal or vertical direction of overhead lines. Contact: Tim Lipps @ (415) 554-9227	N/A		
	CLAY ST	WASHINGTON ST -	Please see special requirements for work in Chinatown.	N/A	Ted Leung - 338 - 4608 p	
	SACRAMENTO ST \ STOCKTON TUNL	CLAY ST -	Please see special requirements for work in Chinatown.	N/A	Ted Leung - 338 - 4608 p	
	WASHINGTON ST	JACKSON ST -	Please see special requirements for work in Chinatown.	N/A	Ted Leung - 338 - 4608 p	
	CLAY ST	WASHINGTON ST -	Proposed Excavation.	PG&E		Sep 1 2015-Oct 1 2015

No Diagram submitted

SECTION 01 57 19.54

ENVIRONMENTAL MITIGATION MEASURES (CTS) ADDENDUM NO. 4

PART 1—GENERAL

1.01 DESCRIPTION

- A. This Section includes special Project conditions, and environmental mitigation measures aimed to minimize disruptions to surrounding neighborhoods, resources and land uses, particularly air quality, noise, vibration during construction, for the Chinatown Station (CTS-1254R) package Work.
- B. The requirements in this Section are Incidental Work, unless noted otherwise.
- C. Mitigation measures described in this Section are required to be in compliance with the California Environmental Quality Act-Mitigation Monitoring and Reporting Program (CEQA-MMRP), State Regulations, and Local Ordinances. Failure to implement mitigation measures to control environmental impacts is subject to federal, State, and local fines. In addition, the Engineer will issue environmental non-compliance notices and assess fines as of \$1000.00 per event/occurrence if mitigation measures required are not implemented daily and consistently creating public and nuisance concerns. Liquidated damages for failure to comply with environmental requirements will apply.

1.02 PROJECT CONDITIONS

- A. Contractor shall be responsible for all costs necessary to prevent its operations from violating any federal, State, or local governmental regulations and the requirements of the Contract Documents.
- B. The Contractor shall make provisions to assign a dedicated crew with a minimum of two workers or more as needed to ensure that mitigation controls are consistently implemented for the Project duration.
- C. If the Contractor does not observe said regulations or the requirements specified herein, or promptly take all required remedial actions to the City's satisfaction, liquidated damages for failure to meet environmental requirements will apply.
- D. The City will monitor Contractor's adherence to the requirements specified herein and will report on Contractor's compliance pursuant to California Assembly Bill 3180 (chapter 1232).
 - 1. Said monitoring and reporting activities may include, but are not limited to, qualitative, quantitative and video observations and data collection on the impacts of noise, vibration air quality, traffic, street pavement damage, water quality, cultural resources, biological resources and hazardous materials.

2. The Contractor shall cooperate with such monitoring activities, provide access to the Site to establish and secure monitoring stations, and make its facilities and records available to the City for performing such monitoring.

1.03 SUBMITTALS

- A. The Contractor shall submit the Plans listed below, and have the Plans approved by the Engineer at least 10 Working Days before any demolition/excavation, and no later than 30 Days after the Notice to Proceed.
- B. Pursuant to the provisions of the submittal section, the Contractor shall submit the following as separate submittals, and as per specification:
 1. Site- Specific Dust Control Plan (DCP) in accordance with Article 1.07 herein.
 2. Noise and Vibration Control Plan as per Articles 1.08 and 1.09 herein. This plan shall be prepared by a qualified acoustical consultant to include identification of noise control measures, monitoring protocols, notification procedures and mitigation information. A qualified noise and vibration consultant is defined as a Board certified Institute of noise control Engineering (INCE) member or other qualified consultant or Engineer approved by the City. Monitoring shall occur as weekly or more often if needed in response to complaints. Monthly Submittals:
 - a. Copies of the wet sweeping log daily schedule servicing the streets, intersections and construction zones within the project boundaries
 - b. Copies of dust monitoring logs, in the event that respirable dust monitoring is required as per the DPH Dust control monitoring plan review.
 - c. Copies of vibration monitoring reading logs
 - d. Copies of noise construction spot check monitoring reading logs, including pre and post filed calibration records
- C. On approval of the above Plans, the Contractor shall provide 4 hard copies and four copies of each Plan on a Compact Disc (CD) with a case, in the Microsoft Word format.

1.04 MAINTENANCE OF THE WORK AREA AND DEBRIS CONTROL

- A. The Contractor shall maintain work areas under its control and adjacent public right-of-ways in a safe condition, and remove all accumulations of debris at the end of each working day, and all accumulations of debris and surplus materials at completion of the Contract; the Contractor shall leave it in a clean and orderly fashion.

- c. Application of chemical dust suppressants or chemical stabilizers according to the manufacturers' recommendations.
 - d. Covering with tarp(s) or vegetative cover.
 - e. Installation of wind barriers of fifty (50) percent porosity around three (3) sides of a storage pile.
- K. The Contractor is responsible and shall perform and or pay for cleanup of spillage (including clean soils) on City streets, to the extent caused by actions of employees of the Contractor or its Subcontractors.
- L. If the Contractor fails to provide adequate dust and other pollutant control as required herein, the Engineer reserves the right to issue environmental non-compliance notices, have the necessary mitigation and clean-up Work performed by others, assess fines as per DPW Ordinances of one thousand dollars (\$1000.00) per non-compliance occurrence or event or to deduct or withhold all monies required therefore as permitted under the Contract Documents. Liquidated damages for failure to comply with environmental mitigation controls will apply.
- M. The Contractor is hereby notified that any screening or crushing operations cannot proceed without the appropriate BAAQMD, and Cal-EPA/DTSC permits.

1.08 CONSTRUCTION NOISE CONTROLS

- A. The Contractor shall ensure that construction activities are in conformance with construction requirements of the City and County of San Francisco Police Code, Article 29, specifically sections 2901, 2907, and 2908. The Contractor shall conduct the following activities to mitigate potential construction noise and vibration impacts.
- B. The City as part of the Mitigation monitoring and Reporting Program will monitor noise construction activities. The Contractor shall cooperate with the City's designated Compliance Coordinator to respond to noise complaints and to ensure that significance levels specified in this Contract are not exceeded during construction activities.
- C. The Contractor shall prepare and submit a Noise and Vibration Control Plan (NVCP) to the City for review and approval, at least 30 days prior to commencing construction. The Noise and Vibration Control Plan shall be prepared and implemented by a qualified acoustical consultant to include identification of noise control measures, monitoring protocol, notification procedures, and other information. A qualified noise and vibration consultant is defined as a Board Certified Institute of Noise Control Engineering (INCE) member or other qualified consultant or engineer approved by the Engineer. The NVCP shall include but not be limited to:
- 1. The method(s) of construction that will minimize noise and vibration.

2. The method(s) used by the Contractor to ensure that its equipment noise does not exceed the requirements of the San Francisco Noise Ordinance and vibration threshold levels.
3. The equipment with attenuation devices to be used
4. Administrative and engineering controls in the event that noise and vibration exceed the criteria specified.
5. Construction noise and vibration monitoring protocols that will be implemented, including but not limited to
 - a. Type of equipment employed to record data;
 - b. Monitoring frequency, weekly or more often if needed, in response to complaints;
 - c. Monitoring methodology, (with weather considerations)
 - d. Criteria for compliance,
 - e. Reporting procedures for noise and vibration concerns and documentation for corrective actions.
 - f. Recordkeeping
 - g. Step up Mitigation Controls in the event that criteria for noise and vibration exceed the levels specified.
 - h. For the vibration protocols, the Contractor shall develop and implement protocols to monitor vibration at the construction site and adjoining buildings using equipment and methods as deemed appropriate by the City to measure potential building damage and effect on occupants, property and sensitive equipment. The protocols shall specify the type of vibration monitoring equipment to be used, monitoring procedure (i.e., monitoring both horizontal and vertical vibration directions), monitoring locations, monitoring frequency.

D. San Francisco Noise Control Ordinance Compliance):

1. The Work of this Contract is subject to requirements of City and County of San Francisco, Article 29 of the Police Code, Ordinance #274-72, and Regulation of Noise (herein after referred to as the “San Francisco Noise Ordinance”).
2. The San Francisco Noise Ordinance includes (but is not limited to) regulations on Ambient Noise, Non Stationary Sources, Fixed Source, Zoning Districts, Noise Level Measurements, Construction Equipment, and Construction Work at Night, Enforcement and Violations.
3. The Noise Ordinance limits noise from powered construction equipment to be no greater than 80 dBA at 100 feet. This is equivalent to 74 dB(A) at 200 feet or 86 dB(A) at 50 feet from the source of

emission. Exceptions to this requirement include impact tools and equipment, pavement breakers and jackhammers. However, these shall be equipped with acoustically attenuating shields, or shrouds to best accomplish maximum noise attenuation.

4. Pay all fines for violations pertaining to the San Francisco Noise Ordinance, at no cost to the City, to the extent resulting from Contractor's (and its Subcontractor's) performance of the Work.
5. A variance should be requested from the San Francisco Noise Ordinance if construction noise between 8:00 p.m. and 7:00 a.m. is in excess of ambient plus 5 dB(A). Apply for a City noise permit at least 3 working days in advance of night (between 8:00 p.m. and 7:00 a.m.), weekend and holiday Work. The requirements of the Contract Documents, including safety requirements, shall apply for all night, weekend and holiday work to be performed.
6. If the Contractor is directed by special written notice from the City to perform any part of the work between the hours of 8 p.m. and 7 a.m., or on weekends or holidays, the Contractor must obtain and comply with a City noise permit prior to starting any Work.

E. Noise Mitigation Measures;

1. The Contractor shall implement mitigation controls to ensure compliance with the construction noise levels allowed. The maximum noise level from any powered construction equipment shall not be greater than 80 dB(A) at 100 feet. This translates to 86 dB(A) at 50 feet (dual units not applicable, as these are specific field and instrument measurements);
2. The Contractor shall monitor noise levels at the Site boundary or at the nearest sensitive receptor. If noise thresholds are exceeded, the Contractor shall stop work and identify alternate methods and equipment or place restrictions on construction operations to comply with noise thresholds;
3. The Contractor shall not resume operations before correcting the conditions that cause excessive noise as deemed acceptable by the City;
4. The Contractor shall use appropriate construction methods and equipment and install acoustical barriers so that noise emanating from the construction will not exceed noise levels pursuant to the City's Noise Control Ordinance;
5. The Contractor shall implement the following noise control measures, as necessary, if activities are expected to exceed the above noise thresholds:
 - a. The Contractor shall use best available controls techniques including mufflers, intake silencers, ducts,

- engine enclosures and acoustically attenuating shields or shrouds for all construction-noise equipment and trucks; and use electric-powered rather than diesel-powered construction equipment, as feasible
- b. The Contractor shall muffle and shield intakes and exhausts, shroud or shield impact tools.
 - c. The Contractor shall enclose equipment such as large compressors, generators, and large dewatering pumps at a minimum in 1-inch-thick plywood sheds.
6. Provide and use acoustically attenuating shields to limit the noise level created by work performed between 8 p.m. and 7 a.m. to no more than the allowable ambient noise level plus 5 dB(A) at the nearest property line.
 7. Impact tools must be equipped with intake and exhaust mufflers. Pavement breakers and jackhammers shall be equipped with acoustically attenuating shields or shrouds. Use of impact tools shall be restricted to the daytime construction hours of 8:00 a.m. to 3:30 p.m. unless approved otherwise.
 8. Perform construction in a manner that maintains noise levels at noise sensitive land uses below specific limits. Select construction processes and techniques that create the lowest noise levels. Quieter procedures shall be used such as drilling rather than impact equipment whenever feasible.
 9. The Contractor shall use quieter procedures, such as sonic or vibratory pile drivers drilling rather than impact equipment whenever feasible. If impact equipment is required, the Contractor shall use hydraulic- or electric- powered impact equipment (e.g., jack hammers, pavement breakers and rock drills) instead of pneumatically-powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed-air exhaust shall be used (a muffler can lower noise levels from the exhaust by up to about 10 dB(A)). External jackets on the tools themselves shall be used, where feasible to achieve a reduction of 5dBA;
 10. Drill holes will be pre-drilled wherever feasible to reduce potential noise and vibration impacts. Pile driving activities shall be prohibited during the evening and nighttime hours (7 p.m. to 7 a.m.);
 11. Operation of equipment requiring the use of back-up beepers shall be avoided near sensitive receptors to the extent feasible during nighttime construction work hours between 8 p.m. to 7 a.m. If nighttime work requires backwards movement and the use of backup alarms results in the exceedance of noise level thresholds specified herein, the Contractor shall implement alternative methods such as the use of “smart” alarms, radar activated backup alarms, or administrative

- controls such as use of a spotter to direct the backing operation and planning activities to minimize backwards movement. Backup warning alarms shall comply with California Division of Occupational Safety and Health (Cal-OSHA) requirements (Codes of California Regulations [CCR] Title 8);
12. The Contractor shall locate stationary noise sources as far from sensitive receptors as feasible. If they must be located near receptors, adequate muffling, (such enclosures) shall be installed to ensure noise thresholds specified herein are not exceeded. Enclosure openings shall be faced away from sensitive receptors. If any stationary equipment (e.g., ventilation fans, generators, dewatering pumps) is required, such equipment shall comply with daytime and nighttime noise limits specified in pertinent noise ordinances to the extent feasible;
 13. The Contractor shall locate materials and other stockpiles as well as staging and parking areas as far as feasible from sensitive receptors, residential, and school receptors;
 14. The Contractor shall implement measures to comply with the noise thresholds specified herein. These measures can include, but are not limited to, using quiet ventilation fans, using grid power instead of generators, erecting temporary sound barriers, restricting heavy equipment operation during nighttime hours, using nonmetallic containers for muck removal, and prohibiting or limiting use of backup alarms as described above;
 15. Unless approved by the City Representative Construction activities shall be prohibited during the nighttime hours (8 p.m. to 7 a. m) without a noise permit;
 16. The Contractor shall provide advance notice to residents and affected businesses in the area of the site, of times, dates and location of construction activities;
 17. Contractor shall direct all truck traffic to designated truck routes that avoid primarily residential areas.
 18. In the event that monitoring results indicated thresholds are exceeded, the Contractor shall immediately notify the City of the exceedance, identify the source of the exceedance (e.g., unusually noisy method, broken muffler, emergency repair), implement corrective actions, and provide documentation to the City that noise levels are returned to acceptable levels;
 19. In the event that noise compliant are reported, the Contractor, in coordination with the City, shall cooperate to the extent possible, including additional monitoring as required, and modify or implement better attenuation controls for any construction equipment or activities that generated the excessive noise levels as;

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Project Trend/Change Control Log

rent Cost Estimate and Allocated Contingencies								
Item #	Change Description	Change Type	CMB No.	Change Status		Projected Cost Impact +Exposure/(Benefit)	Comments	Contract Modification Number
				Approval Action	Approval Date	Actual/Forecast		
Contract 1250 - Utilities Relocation #1 (Portal & MOS)								
1250-0001	081-0001	Delete Option MF-OPT1 "Fire Protection Sprinkler System"	1	N/A		(50,000)	Cleared City Attorney's Office; to Shahnam for execution. [In "Current Forecast" - Sep2010 Cost Report.] COMPLETE, NO FURTHER ACTION; CMOD #1	CMOD #1 Approved
1250-0002	081-0002	Changes to Sewer on 4th between Howard and Folsom	2	CMB-0001	Agree	07/12/10	+107,174 Differing conditions as AWSS is directly over existing sewer; unable to install sewer manhole per plan. [In "Current Forecast" - Sep2010 Cost Report.] No reimbursement from SFPUC Sewer. COR #2-\$34,135; COR #5-\$73,039 COMPLETE, NO FURTHER ACTION; CMOD #2	CMOD #2 Approved
1250-0003	081-0003	Quantity Adjustment for JT-6 and JT-7	4	CMB-0002	Agree	08/04/10	+192,420 In April 2010 pay app., JT-6 bid qty exceeded by 344% (230 vs. 1021) and JT-7 bid qty exceeded by 112% (500 vs. 1060) [In "Current Forecast" - Sep2010 Cost Report.] COMPLETE, NO FURTHER ACTION; CMOD #3	CMOD #3 Approved
1250-0004	081-0004	Demolition of existing brick and concrete footing on 4th between Howard and Folsom	2	CMB-0003	Agree	07/12/10	+170,000 Unforeseen bricks and concrete footing discovered on east side of 4th Street between Folsom and Howard. [In "Current Forecast" - Sep2010 Cost Report.] COR #3-RFI #76 COMPLETE, NO FURTHER ACTION; CMOD #4	CMOD #4 Approved
1250-0005	081-0005	Modify AWSS at 4th/Bryant and 4th/Harrison	3	CMB-0004	Agree	08/04/10	+586,000 At 4th/Bryant, AWSS conflict with new 48" sewer and AT&T duct bank. At 4th/Harrison, AWSS conflict with 18" sewer. [In "Current Forecast" - Sep2010 Cost Report.] No reimbursement from SFPUC AWSS. PCC #2: RFI #s 34, 49 & 51 COMPLETE, NO FURTHER ACTION; CMOD #5	CMOD #5 Approved
1250-0006	081-0006	Install four additional piles and reinforce existing foundation at 401 4th Street	2	CMB-0005	Agree	08/25/10	+130,000 Existing foundation was discovered to be part brick and part concrete, which is different from plan. Also, foundation was unstable and required additional reinforcement. Refer to RFIs #85R1, 88.1, 100, 101, 102 COMPLETE, NO FURTHER ACTION; CMOD #6	CMOD #6 Approved
1250-0007	081-0007	Additional work to install 48" sewer due to various utility conflicts at 4th/Bryant	2	N/A			+32,964 48" RCP sewer in conflict with existing AT&T duct bank that needs to remain in service until new joint trench is installed to enable switchover. This conflict forced contractor into a more expensive means to install sewer. Also, 48" RCP sewer in conflict with existing 30" force main and 24" steel pipes. No reimbursement from SFPUC Sewer. COMPLETE, NO FURTHER ACTION; CMOD #9	CMOD #9 Approved
1250-0008	081-0008	Relocate TPC vault on 4th Street between Howard and Folsom	6	N/A			+19,500 Contractor uncovered existing TPC conduits on top of AT&T duct bank on 4th near Howard, a differing site condition. An AT&T intercept vault is to be installed, however, TPC conduits can not reside inside AT&T intercept vault. Joint Trench utilities participation cost TBD. Executed on 10/14/2010. Refer to RFI #62 (\$19,500) Expected Reimbursement from TPC. RE has provided documentation of notification to TPC, July-August '10. See final 1250 Form B actual costs COMPLETE, NO FURTHER ACTION; CMOD #8	CMOD #8 Approved
1250-0009	081-0009	Install additional sewer and provide temporary connections at 4th/Stillman	3	N/A			+47,000 Location of existing sewer to be intercepted differs from where it's shown in the plan, hence additional sewer to be installed. Also, due to optional sewer MH not buildable until (E) AT&T DB is removed, additional sewer is necessary to tie into (E) main as interim. New sewer is supposed to tie into optional MH. No reimbursement from SFPUC Sewer. RFI #91 COMPLETE, NO FURTHER ACTION; CMOD #7	CMOD #7 Approved

- 1 - Owner Directed Change in Scope
- 2 - Unforeseen Conditions
- 3 - Errors and Omissions
- 4 - Quantity Variation
- 5 - Value Engineering
- 6 - Private Utilities
- 7 - Other

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Item #	Change Description	Change Type	CMB No.	Change Status		Projected Cost Impact +Exposure(Benefit)	Comments	Contract Modification Number	
				Approval Action	Approval Date	Actual/Forecast			
1250-0010	081-0010	Perform AT&T wye cast connection and chipping of existing duct bank at various locations	6	N/A			+48,181	AT&T was supposed to tie-in its own facility. However, AT&T's contractor, who is hired to install vaults, stated it is not in their scope of work. Refer to RFI #82.1. AT&T intercept vault at 4th/Harrison can not be installed at design location due to utility conflicts. AT&T vault to be shifted a few feet instead of vault being on top of existing duct bank. This will cause additional excavation, joint trench and modification to existing duct bank. Joint Trench utilities participation cost TBD. SFMTA and AT&T are negotiating with Contractor. (\$48,181) Expected Reimbursement from AT&T. RE has provided documentation of notification to AT&T, Sept-Oct '10. See final 1250 Form B actual costs. COMPLETE, NO FURTHER ACTION; CMOD #10	CMOD #10 Approved
1250-0011	081-0011	Remove existing piles and shoring at 801 Howard	2				-0-	This change order has been incorporated in CMOD #16 (Trend #30) COMPLETE, NO FURTHER ACTION; CMOD #16	CMOD #16 Approved
1250-0012	081-0012	Additional work related to AT&T facilities due to unforeseen conditions.	6	CMB-0047	Agree	08/03/11	-0-	This is the total of all force account work related to AT&T facility. SFMTA to seek reimbursement from AT&T through the Form B process. (\$67,798) Expected Reimbursement from AT&T. Cost captured in Trend #15 COMPLETE, NO FURTHER ACTION; CMOD #20	CMOD #20 Approved
1250-0013	081-0013	Additional work related to PG&E facilities due to unforeseen conditions.	6	CMB-0047	Agree	08/03/11	-0-	This is the total of all force account work related to PG&E facility. SFMTA to seek reimbursement from PG&E through the Form B process. (\$30,547) Expected Reimbursement from AT&T. Cost captured in Trend #15 COMPLETE, NO FURTHER ACTION; CMOD #20	CMOD #20 Approved
1250-0014	081-0014	Remove brick wall at sewer sta 152+94 (west side) on 4th between Howard and Folsom.	2				-0-	This change order has been incorporated in CMOD #16 (Trend #30) COMPLETE, NO FURTHER ACTION; CMOD #16	CMOD #16 Approved
1250-0015	081-0015	Archaeological Findings - Charges for rental of steel plates, triton barriers, shoring and labor for maintenance.	2				+784,771	Midden deposits were discovered on 4th Street between Howard and Folsom. Contractor stopped work. Contractor requesting payment for rental charges of trench plates, barricades, and shoring, and cost of maintenance. Total cost exposure is projected through end of November 2010. The \$290,703.00 is expected to be the final estimate for the rental of trench plates, barriers and shoring. \$597,000 Arch, \$179, 000 DIFF, \$8,500 Traffic COMPLETE, NO FURTHER ACTION; CMOD #20	CMOD #20
1250-0016	081-0016	Additional AWSS modification at 4th/Harrison	1	CMB-0016	Agree	11/10/10	+156,418	New alignment is proposed by Design team. No reimbursement from SFPUC AWSS. COR #33 Supplemental COMPLETE, NO FURTHER ACTION; CMOD #12	CMOD #12 Approved
1250-0017	081-0017	Protection Work at PG&E Vault 1611	6				-0-	Expected Reimbursement from PG&E or work to be deferred \$6,400. RE has notified PG&E via email dated 10/29/10 that SFMTA expects full reimbursement for this work if implemented. Follow-up pending. Work was not performed and will need to be addressed in a future contract.	
1250-0018	081-0018	Demolition and Support Work at PG&E Vault 1611	6				-0-	Expected Reimbursement from PG&E or work to be deferred \$25,000. RE has notified PG&E via email dated 10/29/10 that SFMTA expects full reimbursement for this work if implemented. Follow-up pending. Work was not performed and will need to be addressed in a future contract.	
1250-0019	081-0019	Extended overhead delay claim due to Archaeological discoveries	2					Old Note: Potential delay claim if issue extends project duration. Amount is estimated at \$3,000.00 per day for 60 days (\$180K). New Note: By exercising all option work, additional 84 calendar days is added to the contract time. In addition, midden mitigation will start on 10/7/10. As a result, the potential for extended overhead cost is averted. This trend has been superseded by Trend #37. COMPLETE, NO FURTHER ACTION	
1250-0020	081-0020	Sewer modification under I-80 freeway at 2 locations	3				+39,062	Inverts of existing sewer where new sewer will tie into are found to be different than shown in plan and would create a reverse slope. Additional pipe and manhole are required to fix slope. Refer to RFI Nos. 2S01 and 147. No reimbursement from SFPUC Sewer. COMPLETE, NO FURTHER ACTION; CMOD #11	CMOD #11 Approved

- 1 - Owner Directed Change in Scope
- 2 - Unforeseen Conditions
- 3 - Errors and Omissions
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Item #	Change Description	Change Type	CMB No.	Change Status		Projected Cost Impact +Exposure(Benefit)	Comments	Contract Modification Number	
				Approval Action	Approval Date	Actual/Forecast			
1250-0021	081-0021	Install new AWSS lateral including hydrant at NW 4th/Harrison	2				Existing AWSS lateral at SW 4th/Harrison is in conflict with new 18" sewer. Instead of modifying the lateral to avoid the sewer, a new lateral at NW corner is a preferred solution. CM awaiting design revision from Design team. Trend No. 21 is combined with Trend No. 22.		
1250-0022	081-0022	Install additional 30 feet of DIP and new AWSS at 4th/Harrison	2	CMB-0026	Agree	01/12/11	+160,908	AWSS Point of connection on 4th Street was found to be cast iron instead of ductile iron as shown in DPW as-built. Due to this differing condition, additional length of pipe needs to be replaced and lead joint to be installed in order to install a ductile iron tee. Also, existing AWSS hydrant lateral is in conflict with new 18" sewer. The preferred solution was to install a new ductile iron lateral at a different location rather than installing vertical offsets on an existing cast iron lateral. No reimbursement from SFPUC AWSS. COMPLETE, NO FURTHER ACTION; CMOD #15	CMOD #15 Approved
1250-0023	081-0023	Steel plates and shoring standby for 2 months due to PG&E delay at Clementina	3				+24,981	Sewer at Clementina was delayed by 2 months due to PG&E vault conflict. PG&E will not pay cost of steel plates and shoring standby because PG&E drawings were sent to MTA during design phase and PG&E was not made aware of the conflict then. COMPLETE, NO FURTHER ACTION; CMOD #13	CMOD #13 Approved
1250-0024	081-0024	Utility support and work around for AT&T facilities	6	CMB-0048	Agree	08/24/11	+95,311	Contract specs specified AT&T to compensate contractor directly for workaround & support. AT&T refused to pay Synergy. Synergy considers AT&T's refusal as a changed condition to CN 1250 contract. (\$95,311) Reimbursement from AT&T. See Final 1250 Form B actual costs. COMPLETE, NO FURTHER ACTION; CMOD #19	CMOD #19 Approved
1250-0025	081-0025	Utility support and work around for PG&E facilities	6					Contract specs specified PG&E to compensate contractor directly for workaround & support. PG&E negotiated \$100,000 directly with Synergy and will pay synergy directly as well.	
1250-0026	081-0026	Utility support and work around for SFWD facilities	3	CMB-0028	Agree	02/09/11	+66,510	Total cost known to date (10/5/10) of all SFWD support and workaround. See COR #12, 20, 32 and 35. Agreed amount is total of COR #12, 20 and 32. Total exposure is equal to agreed amount plus COR #35. No reimbursement from SFWD. COMPLETE, NO FURTHER ACTION; CMOD #14	CMOD #20 Approved
1250-0027	081-0027	Trucking and labor support for Archaeological mitigation	2				-0-	Synergy is asked to provide trucking for delivery of midden soil to Sonoma State University lab. Other support work includes traffic control, plating, loading and unloading of midden soil. The amount shown are charges up to end of November 2010 only. Additional charges are expected which will be tracked as Trend No. 28. COMPLETE, NO FURTHER ACTION	CMOD #20 Approved
1250-0028	081-0028	Trucking and labor support for Archaeological mitigation, Part II	2				-0-	Synergy is asked to provide trucking for delivery of midden soil to Sonoma State University lab. Other support work includes traffic control, plating, loading and unloading of midden soil. The amount shown are expected charges beyond November 2010. COMPLETE, NO FURTHER ACTION	CMOD #14 Approved
1250-0029	081-0029	Cost overrun for bid item UD-10 "Additional excavation and backfill"	4	CMB-0036	Agree	05/04/11	+112,500	Bid item UD-10 is to pay for excavation of connection hole and kill hole for SFWD line. Contract only included 200 cubic yard for this work. The size of excavations is dictated by field conditions and per the direction of SFWD inspector. RE's estimate of the total volume of dirt to be excavated is 630 cy. Examples of differing conditions encountered are: location of existing water line is different than where it's shown in the plan, existing waterline where shown in the plan to be connected to is inactive, differing condition at 5th/Clementina, connection holes and kill holes need to be expanded due to other utilities in the way. COMPLETE, NO FURTHER ACTION; CMOD #17	CMOD #17 Approved
1250-0030	081-0030	Supplement bid item GE-4 "Allowance for differing site conditions" related to the installation of publicly owned facilities only (sewer, water, AWSS, Joint trench)	4	CMB-0030	Agree	04/13/11	+235,595	This change order is to supplement GE-4 for cost overrun related to the installation of publicly owned infrastructure only. GE-4 cost overrun for installation of privately owned infrastructure is being tracked separately and a separate change order will be issued. COMPLETE, NO FURTHER ACTION; CMOD #16	CMOD #16 Approved
1250-0031	081-0031	Unused allowance for bid item GE-8 "Allowance for cast-in-place utility vaults"	4				-0-	Bid item GE-8 is an allowance to pay contractor for designing and constructing cast-in-place manholes as required for installation of new systems. Only one CIP vault was installed. Credit amount included in Trend #43	

- 1 - Owner Directed Change in Scope
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- 7 - Other

CENTRAL SUBWAY PROJECT

Project Trend/Change Control Log

Item #	Change Description	Change Type	CMB No.	Change Status		Projected Cost Impact +Exposure(Benefit)	Comments	Contract Modification Number	
				Approval Action	Approval Date	Actual/Forecast			
1250-0032	081-0032	Unused allowance for bid item UD-5 "Handling and disposal of Class I Hazardous Waste"	4				-0-	Bid item UD-5 is an allowance to pay contractor for handling and disposal of Class I Hazardous Waste. No class I hazardous waste was off hauled away from the job site. Class I soil found under the I-80 freeway was put back in the trench as backfill. This bid item is expected to remain unused. However, contractor is claiming to recover "General Conditions" cost. Credit amount included in Trend #43	
1250-0033	081-0033	Unused allowance for bid item UD-6 "Transportation of Class I Hazardous Waste"	4				-0-	Bid item UD-6 is an allowance to pay contractor for transporting of Class I Hazardous Waste. No class I hazardous waste was off hauled away from the job site. Class I soil found under the I-80 freeway was put back in the trench as backfill. This bid item is expected to remain unused. However, contractor is claiming to recover "General Conditions" cost. Credit amount included in Trend #43	
1250-0034	081-0034	Cost overrun for bid item TR-6 "Allowance for manual traffic control"	4	CMB-0037	Agree	05/04/11	+68,820	Bid item TR-6 is an allowance to pay for off-duty police officers and parking control officers. Contract allowance amount is \$50,000.00. Contract specs calls for police officers at 4 intersections (4th/Howard, 4th/Folsom, 4th/Harrison and 4th/Bryant). The average cost of 1 police officer is about \$800.00 per day (\$100.00 per hour). The \$50,000.00 allowance is only good for 60 days for 1 police officer. Hence, additional money was needed for traffic control support. Final amount paid police officers is \$87,500.00. Additional billings for parking control officers (from Al Herce of DPT) is forthcoming; RE estimated this bill to be about \$60,000.00. COMPLETE, NO FURTHER ACTION; CMOD #18	CMOD #18 Approved
1250-0035	081-0035	Premium cost for requesting contractor to accelerate work on 4th Street between Howard and Folsom	2				-0-	Due to archaeological discoveries, many trenches remained open and the project would not have enough time to complete installation of underground utilities and restore the roadway before the Holiday season. Without accelerating the work, the project would have had to pay rentals for the barriers, street plates and shoring for the unfinished trenches that would have remained. By accelerating the work and DPT allowing the contractor to work through the beginning of the Holiday Moratorium, the project avoided these rental costs, which is estimated to be greater than the premium cost of accelerating the work. COR Not submitted by Contractor CLOSED COMPLETE, NO FURTHER ACTION	
1250-0036	081-0036	Rental/Maintenance costs for support of Archeological Trenches (Part 1 of 4) \$255,840; Support Work During Archeologist Mitigation Efforts (Part 2 of 4) \$199,741; Mobilization and Equipment Standby Costs (Part 3 of 4) \$67,728; Additional Overhead/Indirect Costs During Archeological Delay Period (Part 4 of 4) \$124,186	2	CMB-0041	Agree	07/13/11 02/15/12 07/25/12 09/12/12	-0-	Due to archaeological discoveries, contractor may potentially claim for compensation for his equipment that were idle for the duration of the waiting period. RE's estimate is based on Caltrans rate for equipment standby for 5 months (May to October). RE has not received any change order request related to this item. RE to verify if his equipment were indeed idle during this time period. 2/15: Rental/Maintenance Costs for Support (Part 2 of 4); Addl Work as Result of Archeological Shutdown (3 of 4). 07/25: Revised mod - compensation for 1 of 3) Rental/Maintenance, 2 of 3) Addl Work result of Archeological support, 3 of 3) Addl OH/Indirect cost. RE to add Equipment Standby time to revised mod. 09/12: RE to Prepare Modification 10/29: CMod 20 is being issued as a unilaterally change, by the SFMTA that represents the SFMTA's estimate of a fair and reasonable final compensation amount for the additional work. COMPLETE, NO FURTHER ACTION	CMOD #20 Approved
1250-0037	081-0037	Compensation for loss of production, inefficiency and disruption of work due to archaeological discovery	2				-0-	Due to archaeological discoveries, contractor may potentially claim for compensation for loss of production, inefficiency and disruption of work. RE has not received any change order request related to this item. Amount shown is a ROM cost by the RE. RE expects a COR from the contractor but change justification is very unlikely. Initial draft COR was \$898,453. RE has adjusted to \$661,559 removing the month of October and option work. This was then revised to 800,000. There has been no official submittal from Synergy. SFMTA has directed Synergy to submit anything related to the Architectural delays through the claims process. This will be carried in the Potential Claim Log. COMPLETE, NO FURTHER ACTION	
1250-0038	081-0038	Project Delay due to archaeological discovery and PG&E Issues.	2				-0-	Due to archaeological discoveries compounded with PG&E's ability to perform service switchover to Olivet University and de-energize a live duct bank in conflict with 48" sewer. The project will realize an estimated 6 weeks of non-compensable delay to the substantial completion date of 4/6/11. 47 days estimated by RE. Contractor submitted COR 51 in the amount of \$1,144,776.74 on September 1st, 2011. RE responded requesting additional backup on October 19th, 2011. Subsequently, no additional information has been provided by the contractor, therefore, SFMTA has directed Synergy to submit anything related to the Architectural delays through the claims process. This will be carried in the Potential Claim Log.	

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1250-0039	081-0039	Remove BP-4 (Waterproofing) from Contract	4				-0- Bid item was not used. Contractor requesting compensation to recover for General Conditions cost. Bid item amount total is \$40,000. NO FURTHER ACTION; Superseded by COR #58. (See 1250-0043 below)	N/A	
1250-0040	081-0040	Delete SW-8 (24" Sewer) from Contract	4				-0- Bid item was not used. Contractor requesting compensation to recover for General Conditions cost. Bid item amount total is \$73,117. NO FURTHER ACTION; Superseded by COR #58. (See 1250-0043 below)	N/A	
1250-0041	081-0041	Delete UD-5 and UD-6 (Class I Off haul and Handling) from Contract	4				-0- Bid items were not used. Contractor requesting compensation to recover for General Conditions cost. Bid items total amount is \$150,000. NO FURTHER ACTION; Superseded by COR #58. (See 1250-0043 below)	N/A	
1250-0042	081-0042	Delete GE-6 (Hazmat) from Contract	4				-0- Bid item was not used. Contractor requesting compensation to recover for General Conditions cost. Bid item amount total is \$100,000. NO FURTHER ACTION; Superseded by COR #58. (See 1250-0043 below)	N/A	
1250-9001	081-9001	Utility Companies refusal to contribute to utility support costs and work-around. (Voided. Recorded individually in TR-0059-TR-0061.)	7					VOIDED	
1250-0043	081-0043	Unit Rate Adjustment for Entire 1250 Bid Items	4			(333,904)	Pursuant to General Provision GP-11, COR is to adjust contract value to account for fix overhead costs for bid items not performed or where the bid item performed varied by 25%. COMPLETE, NO FURTHER ACTION; CMOD #20	CMOD #20 Approved	
Contract 1250 Totals						+2,694,211	Total Changes to the Contract in the amount of \$2,694,211, represents a \$740,834 OVER RUN of the original allocated contingency of \$1,953,377. Changes that will be Utility Reimbursement credits through the Form B process in the amount of \$162,992 will offset some of this OVER RUN. Final Contract Closeout Total \$11,968,150 will be reduce by \$2,275,419 Utility Reimbursement credits for a Final Program cost of \$9,692,731 for CN 1250		
Contract 1251 - Utilities Relocation #2 (UMS)									
1251-0001	082-0001	Modify traffic control plan by establishing a single travel lane on Stockton St. in lieu of time-based multiple lane requirements as stipulated in contract plans TR-001 to 004.	7				-0- After discussions with the Contractor and the Union Square Business Improvement District (BID), the SFMTA determined that modifying the lane requirements along Stockton St. and implementing the alternate pedestrian walkway design would be beneficial to the execution of CN 1251 in the following ways: increased public safety, increase construction production, and create a more pleasing environment to the public and merchant. COR #1 COMPLETE, NO FURTHER ACTION; CMOD #4	CMOD #4 Approved	
1251-0002	082-0002	Installation of reinforced concrete slab underneath Joint Trench along Stockton at O'Farrell (East Side). CTL 133+66.37 (27.08 LEFT) to CTL 134+00.87 (27.08 LEFT)	1&3	CMB-0035	Agree	04/20/11	+67,634	Pursuant to a commitment between Barney's and SFMTA, Emergency Stair #4 (to be constructed in CN 1253) must avoid existing subsided basement. It was determined that moving the conflicting stairs would require the Joint Trench to be constructed in a manner that would enable it to span the excavated area. The addition of the invert slab allowed for the needed span thereby allowing for a relocation of Emergency Stair #4. COR #4; PCC #1 COMPLETE, NO FURTHER ACTION; CMOD #2	CMOD #2 Approved
1251-0003	082-0003	Adjust placement of 3EA manholes along Geary Street and O'Farrell Street. The modified manhole locations require the installation of approximately 265LF of additional HDPE pipe inside the existing 3'x5' brick sewer.	1	CMB-0029	Agree	02/23/11	+148,919	During future station construction, the design team anticipates that excavation related settlement may cause damage to the brick sewers along Geary and O'Farrell Streets. This proposed modification will replace the vulnerable brick sewer within the influence zone with HDPE pipe that will not be as susceptible to settlement-induced damage. COR #9; PCC #2 COMPLETE, NO FURTHER ACTION; CMOD #1	CMOD #1 Approved

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1251-0004	082-0004	Changes to Neiman Marcus secondary enclosure wall due to various differing site conditions.	2	CMB-0031	Agree	04/13/11	+189,584	Due to various differing site conditions as described in RFIs 15, 37, 38 and 44, changes to the secondary enclosure wall are required. The existing footing were found to be inconsistent, i.e. missing footing in one area, footing sticks out beyond existing wall, overpour on existing footing, existing wall to be 6" into private property. Contract plan SR-302 shows a consistent footing. COR #8 COMPLETE, NO FURTHER ACTION; CMOD #3	CMOD #3 Approved
1251-0005	082-0005	Existing PG&E conduits were found on top and parallel to existing AWSS on Geary Blvd. at 2 locations (east and west of Stockton)	6				+66,084	Contract plans AW-501.1, 501.2, 501.4 and 501.4 show the existing AWSS to be replaced in place. However, existing PG&E conduits were found to be on top and parallel to the existing AWSS resulting in extra work in working around and/or shifting the existing electrical conduits. Contract plans JT-308 and 309 showed the existing electrical and AWSS to be separate. Estimate includes \$77,892.53 (Synergy FA Request) + \$25,000 (first digging west side) + \$10,000 (temp backfill during moratorium) + \$15,000 (plate rental west side at \$5k per month). Estimate does not include Synergy's cost to sequence his work. Updated projected cost impact from \$50,000 to \$127,893 based on compilation of force accounts received. RE negotiating COMPLETE, NO FURTHER ACTION	CMOD #24 Approved
1251-0006	082-0006	Design changes to utilities on Stockton street between Post and Geary	1	CMB-0039	Agree	06/08/11	+398,624	Due to changes to the limits of the UMS Station on Stockton Street between Post and Geary, the original utility design has changed. COR #24, PCC #4 COMPLETE, NO FURTHER ACTION; CMOD #5	CMOD #5 Approved
1251-0007	082-0007	Design changes to utilities on Ellis Street	1	CMB-0049	Agree	08/24/11	(434,957)	Due to changes to the limits of the UMS Station on Ellis street, the original utility design has changed. PCC #5 COMPLETE, NO FURTHER ACTION; CMOD #5	CMOD #5 Approved
1251-0008	082-0008	Elimination of underpinning at 150 Stockton	1					Based on field verification, it was determined that underpinning is no longer needed. Contract bid item SR-9 is for a total amount of \$116,000 measured by LF. However, CM team does not anticipate to recover the full amount because contractor may be entitled to retain general conditions cost and some excavation cost that was already performed but encumbered in Bid Item SR-9. Agreed credit of (\$58,000) to be included in Trend #60. CLOSED, NO FURTHER ACTION	
1251-0009	082-0009	Additional cost for police officers and/or Parking Control Officers for traffic control.	4	CMB-0038	Agree	06/01/11	+261,584	Contract bid item TR-7 for manual traffic control in the amount of \$120,000 is insufficient to control traffic for the duration of the contract. The \$120,000 allowance only equates to one police officer for a duration of 7.5 months. At a minimum, it is anticipated that one police officer or PCO will be needed at Stockton/Post for the entire contract duration of 16 months. Additionally, one PCO is required for each intersection at Geary/Stockton and O'Farrell/Stockton. COMPLETE, NO FURTHER ACTION; CMOD #4	CMOD #4 Approved
1251-0010	082-0010	Accelerate Stockton east between O'Farrell and Market	1				+27,409	Contractor needed to rent additional excavators to work concurrently with the other block on Stockton between O'Farrell and Market. Amount: \$27,409; COR #25 COMPLETE, NO FURTHER ACTION; CMOD #3	CMOD #3 Approved
1251-0011	082-0011	Potholing at 4th/Howard for PUC sewer design	1					Request from MOS utility design team to pothole for the intercept of a 36" force main sewer and 96" sewer. PUC requested that this be done in order to ensure that we have accurate utility information to avoid costly change orders during construction. Per direction from CMB on January 18, 2012, this request is denied. COR #50, PCC #6 CLOSED, NO FURTHER ACTION: Per direction from CMB on January 18, 2012, this request is denied.	
1251-0012	082-0012	Additional cost to lower the AWSS at O'Farrell, east of Stockton, due to numerous existing utility conflicts.	2	CMB-0042, CMB-0050	Agree	8/3/2011, 9/21/2011	+278,351	The AWSS is in conflict with AT&T, PG&E and several other utilities and needs to be installed under all these utilities at about 11' deep (instead of 6' depth as noted in Plan AW-501.4, sheet note #5). During negotiations with the Contractor several items of work were found to be missing for the original cost estimates which increase the amount to \$278,351. RFI #76, COR #31 COMPLETE, NO FURTHER ACTION; CMOD #6	CMOD #6 Approved

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1251-0013	082-0013	Accelerate start of construction in front of Macys West by trenchless construction method	7				Micropile installation on Stockton east between O'Farrell and Market has proven to be much slower than anticipated. To mitigate this potential delay, contractor requested to start construction in front of Macys West. COR 32 (CMB 0055 approval - see also Trend CN1251 #'s 04 & 10) COMPLETE, NO FURTHER ACTION; CMOD #3 (No Cost Change)	CMOD #3 Approved	
1251-0014	082-0014	Increase in Bid Item WD-10, Allowance for Additional Excavation and Backfill.	3	CMB-0055	Agree	09/14/11	+191,779	This allowance is for the contractor to perform additional excavation, backfilling and restoration associated with the water tie-ins and capping for the distribution piping system. The contractor has performed two water service tie-ins at an average cost of \$14,000 per tie-in. The current number of tie-ins and capping is 35 separate points. This amounts to a total cost of \$490,000. The current contract allowance amount is \$100,000, therefore an additional \$390,000 will be needed to augment its bid item. CMB made a partial approve of up to \$200K. The initial Contract Modification to supplement this allowance is in the amount of \$191,778.62. RE's cost analysis of this trend confirms that the initial CMod amount of \$191,778.62 is sufficient to cover for all water tie-in/capping work. COMPLETE, NO FURTHER ACTION; CMOD #9	CMOD #9 Approved
1251-0015	082-0015	Additional traffic signal work at Post/Stockton	1				+17,530	Modification of the traffic signal at Post/Stockton is required to implement the detour shown in contract plan TR-010. There are no bid item to bill this work. COR #19 COMPLETE, NO FURTHER ACTION; CMOD #8	CMOD #8 Approved
1251-0016	082-0016	Additional traffic signal work at Sutter/Mason	2				+32,054	Existing conduits shown in Plan ET-101 differs from what is actually in the field. City's response to RFI 73 directs contractor to install new conduits and conductors. RFI #73; COR #33 COMPLETE, NO FURTHER ACTION; CMOD #8	CMOD #8 Approved
1251-0017	082-0017	Furnish and install AT&T Manhole 5830 on O'Farrell Street	6	CMB-0051	Agree	09/21/11	+25,000	AT&T was supposed to hire its own subcontractor to furnish and install all AT&T vaults in CN 1251. AT&T requested SFMTA for Synergy to perform this work as change order to CN 1251. AT&T agreed to reimburse SFMTA (\$25,000) through the Form B process. COMPLETE, NO FURTHER ACTION; CMOD #7	CMOD #7 Approved
1251-0018	082-0018	Furnish and install AT&T Manhole 5829 on Geary Blvd.	6	CMB-0051	Agree	09/21/11	+31,000	AT&T was supposed to hire its own subcontractor to furnish and install all AT&T vaults in CN 1251. AT&T requested SFMTA for Synergy to perform this work as change order to CN 1251. AT&T agreed to reimburse SFMTA (\$31,000) through the Form B process. COMPLETE, NO FURTHER ACTION; CMOD #7	CMOD #7 Approved
1251-0019	082-0019	Extend joint trench and modify existing AT&T Manhole 403 on Ellis Street.	6	CMB-0057	Agree	10/26/11	+31,000	AT&T was supposed to furnish and install AT&T vault #5833 on Ellis Street. The current design was to intercept the existing AT&T conduit in the middle of Ellis Street. It was discovered that the existing AT&T conduit actually run adjacent to the southern curb line along Ellis Street. Therefore, AT&T requested SFMTA for Synergy to extend the joint trench approximately 200 feet to the West and tie into their existing AT&T vault #403. This work will also require Synergy to enlarge vault #403 to accept the additional conduit. This additional work for AT&T will need to be reimbursed to SFMTA through the Form B process. Note: The agreed amount (\$31,000) is for enlargement of vault #403 only; the additional 200 feet of trench to be captured in the JT bid items. (See Trend 60) COR #43 COMPLETE, NO FURTHER ACTION; CMOD #11	CMOD #11 Approved
1251-0020	082-0020	Change PG&E conduit material from PVC to GRS on west side of Stockton between Geary and Post	6	CMB-0058	Agree	11/02/11	+19,537	PG&E requested to use GRS material in lieu of PVC in areas where PG&E conduits were expected to be exposed and temporary supported during future UMS station construction. PG&E agreed to reimburse SFMTA (\$19,537) through the Form B process. COMPLETE, NO FURTHER ACTION; CMOD #21	CMOD #21 Approved
1251-0021	082-0021	Revise PG&E service points and layout of primary lines at various locations, and delete Muni Vault 1850 A at Stockton/Ellis.	6					PG&E made changes to the locations of the service points and layout of some of the primary lines. In addition, due to changes to the limits of the UMS Station on Ellis Street, it was determined that Muni Vault 1850A is no longer needed. Cost for this trend in captured in Trend #31 or CMod #12. CLOSED; NO FURTHER ACTION. Cost for this trend is captured in Trend #31/CMod #12	

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1251-0022	082-0022	Change OCS supports at SF Hilton Hotel on Mason Street from embedded eyebolts to poles w/foundations.	7				During the design phase the representatives of the Hilton Hotel agreed to and signed a license agreement with the SFMTA to allow embedded eyebolt supports. Hilton's Dir of Property Ops now wants to have OCS poles rather than the embedded building eyebolt supports. However, the OCS designer was able to revise the OCS design to eliminate the need for either eyebolts or poles in front of Hilton Hotel, resulting in a \$2,000 credit. CLOSED; NO FURTHER ACTION. Applicable bid items to be adjusted accordingly, See Trend #60.		
1251-0023	082-0023	4th Street & Folsom Trolley Bypass	1	CMB-0065	Agree	1/25/2012, 2/29/12	+405,440	SFMTA Operations has requested a bypass be installed at 4th Street and Folsom Street. \$242,619 in labor costs for OCS installation has not been negotiated yet. 1/25: Condition agreed upon verification material from Contractor to be procured is available. (Verified 02/01/12). 02/29: CMod negotiated cost has been revised to incorporate original three items and the add'l OCS work on Folsom St. COR #52; PCC #7 Updated projected cost impact from \$490,000 to \$405,440. CMod #12 (Formally CMod #15) COMPLETE, NO FURTHER ACTION; CMOD #12	CMOD #12 Approved
1251-0024	082-0024	Install a 5" slurry wall between the gas line and wet utilities if the separation is less than 3 feet	6	CMB-0059	Agree	11/16/2011, 05/02/12	+201,411	As a new requirement, PG&E had requested that a 5" slurry wall be installed between the gas line and wet utilities where the separation between the 2 utilities is less than 3 feet. PG&E agreed to reimburse SFMTA (\$201,410) through the Form B process. COR #58 COMPLETE, NO FURTHER ACTION; CMOD #19	CMOD #19 Approved
1251-0025	082-0025	Additional PG&E conduit crossings at Geary and O'Farrell to minimize service interruption during future UMS Station construction	6				PG&E requested to install additional conduits crossing Stockton Street at Geary and O'Farrell to minimize service interruption during future UMS Station construction. PG&E agreed to reimburse SFMTA through the Form B process. This item is captured under applicable JT Bid item, see Trend 60. CLOSED; NO FURTHER ACTION. Item is captured under applicable JT Bid Item, See Trend 60.		
1251-0026	082-0026	Install cantilever footing in lieu of regular OCS foundation at 2 locations on Mason Street between Geary and O'Farrell	2				The sub-basement in the public parking garage at O'Farrell/Mason extends beyond the property line up to the curb line. Therefore, regular foundations as per original design could not be installed. CLOSED; NO FURTHER ACTION. Item is captured under applicable OCS Bid Item, See Trend 60.		
1251-0027	082-0027	Accelerate installation of AT&T facilities in order for AT&T to start cut-over sooner	1	CMB-0056	Agree	11/30/11	+281,435	Acceleration is necessary to avoid potential delay impacts to Central Subway follow-on contracts. COR #40 COMPLETE, NO FURTHER ACTION; CMOD #10	CMOD #10 Approved
1251-0028	082-0028	Furnish and install AT&T Manholes 5828 (Stockton), 5831 (Geary), 5832 (O'Farrell) and 113 (O'Farrell)	6	CMB-0057	Agree	10/26/11	+157,000	AT&T was supposed to hire its own subcontractor to furnish and install all AT&T vaults in CN 1251. AT&T requested SFMTA for Synergy to perform this work as change order to CN 1251. AT&T agreed to reimburse SFMTA (\$157,000) through the Form B process. COR #43 COMPLETE, NO FURTHER ACTION; CMOD #11	CMOD #11 Approved
1251-0029	082-0029	Rebuild existing AT&T vault 133 at Post/Stockton and demolish existing AT&T vaults 403 (Ellis) and 113 (O'Farrell)	6				Vault 133 rebuild is superseded by Trend 40. Demolition of existing vaults 403 and 113 is superseded by Trend 43 CLOSED; NO FURTHER ACTION. Demo of exiting vaults 403 and 113 are superseded by Trend 43. (See CMOD #23)		
1251-0030	082-0030	Enlarge existing PG&E vault 873 at SW Geary/Stockton	6	CMB-0058	Agree	11/02/11	+46,366	PG&E asked SFMTA to enlarge vault 873. PG&E agreed to reimburse SFMTA (\$46,366) through the Form B process. CMB approved a NTE amount of \$40K COMPLETE, NO FURTHER ACTION; CMOD #21	CMOD #21 Approved
1251-0031	082-0031	Additional PG&E conduits crossing O'Farrell on east side of Stockton (Task Order #32)	6	CMB-0058	Agree	11/02/11	+17,193	PG&E asked SFMTA to install additional conduits. PG&E agreed to reimburse SFMTA (\$17,193) through the Form B process. COMPLETE, NO FURTHER ACTION; CMOD #21	CMOD #21 Approved

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1251-0032	082-0032	Excavation and restoration cost for PG&E gas tie-in and kill holes.	6	CMB-0059	Agree	11/16/2011, 05/02/12	+92,292	PG&E gas drawings were not included in the bid package and there was no bid item to capture this work. Gas drawings was issued by PG&E in June 2011. PG&E agreed to reimburse SFMTA (\$92,292) through the Form B process. Updated projected cost impact from \$202,400 to \$169,087 due to reduction in number of kill holes from 18 to 15. 04/11: Discovery of actual number of Kill/Tie locations being 26 instead of 15 will require confirmation from PG&E of the locations and the new cost of scope of work. COMPLETE, NO FURTHER ACTION; CMOD #19	CMOD #19 Approved
1251-0033	082-0033	Install secondary enclosure wall at One Stockton (Apple Store)	1	CMB-0068	Agree	03/07/12	+408,700	Additional enclosure wall is design initiated change. COR #47, PCC #9 Updated projected cost impact from \$262,484 to \$408,700. 39 Calendar Day Time Extension COMPLETE, NO FURTHER ACTION; CMOD #13 (formally CMOD #14)	CMOD #13 Approved
1251-0034	082-0034	Install temporary support as required to protect existing live utilities that are encroaching into the City right-of-way in front of 17-25 Stockton Street.	2	CMB-0069	Agree	04/04/12	+337,548	Existing utilities that are in active service were discovered in the City public right-of-way and are obstructing the performance of Contract work. Worst case scenario - "Not to Exceed" value) CM team will report actual amount value at a later date COR #71 CMB agreed to a Not-to-Exceed amount of \$346,456 on 4/4/12. All physical work was scheduled to complete by 4/13/12 COMPLETE, NO FURTHER ACTION; CMOD #17	CMOD #17 Approved
1251-0035	082-0035	Potholing on Stockton between Post and Geary for UMS Station design	1					UMS Design Team requested 1251 to pothole (6'Wx12'Lx8'D) on Stockton between Post and Geary to locate existing piles and tie-backs at Union Square. Cost for this scope of work from the Contractor is \$19,870.73. Per direction from the CMB on Jan 18th this request is denied and the DP2 designer will cover this potential future obstruction with a note on the drawings. COR #53 CLOSED; NO FURTHER ACTION. Per direction of CMB on 1/18/12, this request is denied and DP2 Designer will cover this potential future obstruction with a note on the drawings.	
1251-0036	082-0036	Install three 6" PG&E conduits from vault 5800 to PG&E "A" pullbox at 4th/Bryant.	6					CN 1252 Contract is requesting 1251 to install PG&E conduits in order to bring power in advance of the tunnel equipment arrival. The scope of work, which involves trenching at the busy 4th/Bryant intersection, was part of the 1252 contract, hence, a credit of same amount (\$54,892.07) to be due back to 1252. Based upon a field meeting and discussions with BIH on Jan 17th this work will be done under CN 1252 as originally planned. COR #55 CLOSED; NO FURTHER ACTION. Based on field meeting with BIH on 1/17/12; this work will be completed under CN 1252 as planned.	
1251-0037	082-0037	Install sewer lateral from the Gucci building (240 Stockton) to the main sewer on Maiden Lane. Work will involve plumbing modification inside building to raise invert.	3	CMB-0078	Agree	09/12/12	+27,428	After field investigation, the existing sewer lateral was found to connect to the Stockton main near Geary. However, the location where the lateral is connected to the main is inside the footprint of the UMS station, in which the main is shown in the contract plan to be slurry filled. The contract plan shows the lateral to be connected to the main on Maiden Lane but is not possible due to invert problem. At the CMB meeting on 1/18/12, Albert Hoe reported that he had instructed the design team during the design phase to investigate this lateral and make the connection to the sewer main at Maiden Lane. RE was asked to investigate if this could be a possible error and omission by the sewer design. (See Trends #44 and 45) COMPLETE, NO FURTHER ACTION; CMOD #18	CMOD #18 Approved
1251-0038	082-0038	Reimburse Synergy for JCDecaux work to remove kiosks	1	CMB-0064, CMB 0080	Agree	1/04/2012, 10/24/12	+29,273	JCDecaux refused to remove the remaining (2EA) kiosks without being paid for work already completed. The CMB approved on 1/04/12 Task Order No. 35 (Removal of 3EA sidewalk kiosks) as requested for the work already completed. On 10/24/12 the CMB approved Trend #38 removal of the remaining 2EA kiosks; work already completed and paid for as part of the approved CMB 0064 dated 01/04/12 for a total of 5EA kiosks removed. Total work priced at \$29,268. COMPLETE, NO FURTHER ACTION; CMOD #22	CMOD #22 Approved
1251-0039	082-0039	Furnish and install 2ea benches along 5th Street	1				+4,752	Requested by Muni Operation. COMPLETE, NO FURTHER ACTION; CMOD #22	CMOD #22 Approved

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CENTRAL SUBWAY PROJECT

Project Trend/Change Control Log

Item #	Change Description	Change Type	CMB No.	Change Status		Projected Cost Impact +Exposure(Benefit)	Comments	Contract Modification Number	
				Approval Action	Approval Date	Actual/Forecast			
1251-0040	082-0040	Furnish and install AT&T Manholes 133 at Post/Stockton	6	CMB-0070	Agree	04/11/12	+45,000	AT&T requested SFMTA for Synergy to rebuild manhole 133 at Post/Stockton. COR #64 AT&T agreed to reimburse SFMTA (\$45,000) through the Form B process. COMPLETE, NO FURTHER ACTION; CMOD #14	CMOD #14 Approved
1251-0041	082-0041	Install additional 55 LF of AT&T trench to extend conduits from vault 5832 to vault 113 on O'Farrell Street	6	CMB-0070	Agree	04/11/12	+23,704	AT&T requested SFMTA for Synergy to extend their conduit from vault to vault instead of wye-casting into exiting duct bank. COR #63 AT&T agreed to reimburse SFMTA (\$23,704) through the Form B process. COMPLETE, NO FURTHER ACTION; CMOD #14	CMOD #14 Approved
1251-0042	082-0042	Install additional 95 LF of AT&T trench to extend conduits from vault 5831 to vault 129 on Geary Blvd.	6	CMB-0070	Agree	04/11/12	+31,525	AT&T requested SFMTA for Synergy to extend their conduit from vault to vault instead of wye-casting into exiting duct bank. COR #62 AT&T agreed to reimburse SFMTA (\$31,525) through the Form B process. COMPLETE, NO FURTHER ACTION; CMOD #14	CMOD #14 Approved
1251-0043	082-0043	Force account work for demolition of existing AT&T vaults 113 (Post/Stockton) and 403 (Ellis)	6	CMB-0076	Agree Conditionally	10/03/12	+52,607	Agreed cost shown in Trends 29 and 40 is for installing vaults only. Cost to demo existing vaults is tracked on force account (estimated cost at \$15k each vault). AT&T agreed to reimburse SFMTA (\$52,607) through the Form B process. CMB Agreed contingent on receipt of confirmation letter from AT&T for costs associated with these three trends (CMB 0076 approval - see Trend CN1251 #'s 72 & 80) COMPLETE, NO FURTHER ACTION; CMOD #23	CMOD #23 Approved
1251-0044	082-0044	Install new sewer lateral from Macys West on O'Farrell including plumbing modification inside Macy's building.	3	CMB-0078	Agree	09/12/12	+11,438	Contract plan SW-4 shows an existing lateral to be connected to new main. However, the 8" lateral is too big to be connected directly to the new 14" main necessitating a new connection to the manhole. However, numerous existing utilities were in the way and required installation of a new lateral at a higher elevation. Due to the raised lateral invert, modification to the building is also needed. COMPLETE, NO FURTHER ACTION; CMOD #18	CMOD #18 Approved
1251-0045	082-0045	Install new 2 each sewer laterals on Stockton between Post and Geary	3	CMB-0078	Agree	09/12/12	+30,260	Contract plan SW-3 shows 2 each existing laterals coming from the Union Square garage to be connected to the new main at approximate sta 128+55. However, the laterals were found to be connected to the downstream end of the existing main (toward Geary), which is called for to be abandoned in 1251 to make room for the future station. (See Trends #37 and 44) COMPLETE, NO FURTHER ACTION; CMOD #18	CMOD #18 Approved
1251-0046	082-0046	Additional cost for enlarging PG&E vault 584 on O'Farrell east of Stockton	6				+80,000	The two (2) existing PG&E duct banks that were supposed to be intercepted by vault 584 were wider than shown on plan. Vault 584 was needed to be enlarged in order to capture the two (2) ductbanks. PG&E agreed to reimburse SFMTA (\$80,000) through the Form B process. COMPLETE, NO FURTHER ACTION; CMOD #24	CMOD #24 Approved
1251-0047	082-0047	Enlarge Muni Vault 900A on Stockton between Post and Geary	2	CMB-0082	Agree	10/31/12	+15,357	Contract plan JT-301 calls for an intercept vault to capture 2 (E) Muni ductbanks (DB). These DBs were found to be farther apart than shown on plan. The intercept vault needs to be widened. (CMB 0082 approval - see Trend CN1251 #'s 47, 58 & 78) COMPLETE, NO FURTHER ACTION; CMOD #26	CMOD #26 Approved
1251-0048	082-0048	Additional cost and time for stuck auger during micropile drilling	2					Contractor's hollow stem auger got stuck during drilling of micropile #27C in front of 17 Stockton. Contractor claims differing condition as cause for the stuck auger. Contractor is asking for 1 day compensable time extension. SFMTA is reviewing claim for entitlement. COR #67 RE Denied COR (City Letter 26); however Contractor will most likely send rebuttal. CLOSED; NO FURTHER ACTION.	
1251-0049	082-0049	Additional cost and time for added rebar and coordination with 17-19 Stockton Owner's contractor	2	CMB-0083	Agree	11/07/12	+9,058	Existing footing of One Stockton was found to be recessed from property line. City's response to RFI 171 called for additional rebar to compensate for the gap between back of new enclosure wall and existing footing. Also, the Owner's contractor of 17-19 Stockton asked that Synergy clear his work area so he can pour the primary wall and bring in his new switchgear. Synergy is asking 2 days compensable time extension. (CMB 0083 approval - see Trend CN1251 #'s 53, 59, and 64) COMPLETE, NO FURTHER ACTION	CMOD #27 Approved

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CENTRAL SUBWAY PROJECT

Project Trend/Change Control Log

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				Approval Action	Approval Date	Actual/Forecast		
1251-0050	Additional cost to install a Type 770 pole foundation at a different location, install 2 each DPT mast arms and demo existing wall in conflict with OCS footing	2	CMB-0074	Agree	08/15/12	+48,898	Type 770 pole foundation at SW 5th/Folsom could not be installed per plan due to a conflict with a cistern. Only solution is to remove an existing pole foundation (recently installed in 1251 as contract work) to make room for the 770 pole foundation. At 5th/Folsom, 2 DPT mast arms (not shown in original plan) need to be installed. At Pole #811, an existing concrete wall is in conflict with pole foundation. (CMB 0074 approval - see Trend CN1251 #'s 67, 74 & 75) COMPLETE, NO FURTHER ACTION; CMOD #20	CMOD #20 Approved
1251-0051	Intercept existing PG&E duct bank and terminate into vault 5464 at Market/Ellis	6				+23,633	PG&E requested to reroute existing duct bank running north out of MH 1803 at 4th/Pioneer Place into MH 5464 at Market/Ellis PG&E agreed to reimburse SFMTA (\$23,633) through the Form B process. COMPLETE, NO FURTHER ACTION; CMOD #24	CMOD #24 Approved
1251-0052	Reroute unforeseen existing waterline on Geary east of Stockton	2	CMB-079	Agree	10/10/12	+27,234	An unforeseen existing waterline was found to be in conflict with PG&E vault 573 and needs to be rerouted per City's response to RFI #182. (CMB 0079 approval - see Trend CN1251 #'s 65 & 70). This is potentially a E&O issue due to unforeseen existing waterline on discovered along Geary Street (east of Stockton Street) not shown in the contract drawings. COMPLETE, NO FURTHER ACTION; CMOD #28	CMOD #28 Approved
1251-0053	Additional cost for premium to accelerate contract work	1	CMB-083	Agree	11/07/12	+10,591	SFMTA directed Synergy to accelerate work to advance PG&E and AT&T cut-over and allow CN 1252 Contractor to start work at UMS COR #74 PG&E agreed to reimburse SFMTA (\$10,590) through the Form B process. 11/07/12 (CMB 0083 approval - see Trend CN1251#'s 49, 59, and 64) COMPLETE, NO FURTHER ACTION; CMOD #27	CMOD #27 Approved
1251-0054	Additional waterproofing at FIDM and north end of Crate & Barrel	2				+8,151	Sidewalk in front of FIDM and north end of Crate & Barrel did not have a sub-sidewalk basement, hence the original plan did not call for waterproofing of the primary wall. While excavating for the joint trench, contractor found the existing waterproofing to be spalling and peeling off from the primary wall. COR #72 COMPLETE, NO FURTHER ACTION; CMOD #22	CMOD #22 Approved
1251-0055	Install Swiveloc lids on all PG&E vaults	6					PG&E requested SFMTA to add this scope to the 1251 contract for safety reason. COR #72 SFMTA decided to defer this work to the 1252 contract. COMPLETE, NO FURTHER ACTION;	
1251-0056	Additional work on force account related to sewer installation	2				+45,156	Additional work due to unforeseen and differing conditions during installation of sewer. COMPLETE, NO FURTHER ACTION; CMOD #15	CMOD #15 Approved
1251-0057	Additional work on force account related to water installation and NRG vault demolition	2				+39,599	Additional work due to unforeseen and differing conditions during installation of water and demolish existing NRG vaults that are in conflict with utility installation. COMPLETE, NO FURTHER ACTION; CMOD #16	CMOD #16 Approved
1251-0058	Additional streetlight conduit on 5th Street between Harrison and Bryant	2	CMB-0083	Agree	10/31/12	+17,754	The existing streetlight pullboxes new cables were supposed to be connected to per contract plan did not have power. New conduit needs to be install from the power source. COR #75 (CMB 0082 approval - see Trend CN1251 #'s 47, 76 & 78) COMPLETE, NO FURTHER ACTION; CMOD #25	CMOD #25 Approved
1251-0059	Accelerate contract work at Barney's front	1	CMB-0083	Agree	11/07/12	+16,948	As a result of numerous meetings and complaints by Barneys, it was decided to accelerate contract work in order to restore Barneys sidewalk earlier (CMB 0083 approval - see Trend CN1251 #'s 53, 49, and 64) COMPLETE, NO FURTHER ACTION; CMOD #27	CMOD #27 Approved
1251-0060	Final Bid Item Reconciliation	4				(508,961)	Bid item analysis for entire contract as of 6/12/12.	CMOD #30 Approved
1251-0061	Excavate for PG&E cutover at 177 Stillman	6				+7,424	PG&E requested Synergy to excavate for PG&E cutover at 177 Stillman. Reference document: Email from Michael Lightstone dated 12/9/11 PG&E agreed to reimburse SFMTA (\$7,424) through the Form B process. COMPLETE, NO FURTHER ACTION; CMOD #24	CMOD #24 Approved

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				Approval Action	Approval Date	Actual/Forecast			
1251-0062	082-0062	Additional waterproofing at Macys Men's wall	2			+24,774	Contract did not call for waterproofing at Macys Men's wall. However, when contractor dug for the joint trench, it was found that the existing waterproofing has deteriorated and needed to be replaced. COR# 20 COMPLETE, NO FURTHER ACTION; CMOD #22	CMOD #22 Approved	
1251-0063	082-0063	Excavation and restoration cost for PG&E gas tie-in and kill holes. Part II	6			+56,458	After completion of Part I (see trend 32), PG&E had offered to self-perform the excavation and restoration of the gas tie-in/kill holes because PG&E had crews available to perform the work. However, PG&E no longer have available crews, hence Synergy had to continue and finish excavating and restoring the last tie-in/kill holes. PG&E agreed to reimburse SFMTA (\$56,458) through the Form B process. COMPLETE, NO FURTHER ACTION; CMOD #24	CMOD #24 Approved	
1251-0064	082-0064	Accelerate finish and detail work of AT&T and PG&E vaults	1	CMB-0083	Agree	11/07/12	+4,704	In order to expedite turn-over of AT&T and PG&E vaults, SFMTA directed Synergy to accelerate the detailing and finish work of these vaults. SFMTA will pay Synergy premium cost for OT hours. 11/07/12 - (CMB 0083 approval - see Trend CN1251 #'s 53, 59, and 49) COMPLETE, NO FURTHER ACTION; CMod #27	CMOD #27 Approved
1251-0065	082-0065	Additional fittings for AWSS lateral and chipping of pole foundation at Market/Ellis	2	CMB-0079	Agree	10/10/12	+20,412	An existing Muni pole foundation is in the way of the AWSS lateral. Additional fittings are required to complete contract work. (CMB 0079 approval - see Trend CN1251 #'s 52 & 70) This is potentially an E & O issue due to an existing Muni pole foundation is in the way of the AWSS lateral. COMPLETE, NO FURTHER ACTION; CMOD #28	CMOD #28 Approved
1251-0066	082-0066	Intercept PG&E conduits at Vault 573 at Geary east of Stockton	6				+6,466	During installation of PG&E intercept vault 573, PG&E had incorrectly identified the conduits to be intercepted. This error was discovered during cut-over process by PG&E. PG&E agreed to reimburse SFMTA (\$6,466) through the Form B process. COMPLETE, NO FURTHER ACTION; CMOD #24	CMOD #24 Approved
1251-0067	082-0067	Additional feeder span, no-bo insulator and adjustment of guywire for the Folsom OCS bypass	3	CMB-0074	Agree	08/15/12	+32,149	SFMTA Electrical Designer had pointed out the new Folsom Bypass does not have enough capacity to power the new OCS necessitating installation of feeder spans. Also, adjustments to the guywire are necessary to mitigate conflict with new signal mast arms. COR #76 7/25/12 - RE presented COR to CMB; direction given to develop one CMod with all remaining items to be purchased for the new OCS bypass. (CMB 0074 approval - see Trend CN1251 #'s 50, 74 & 75) COMPLETE, NO FURTHER ACTION; CMOD #20	CMOD #20 Approved
1251-0068	082-0068	Extended Overhead cost from July 19, 2012 to August 16, 2012	1	CMB-0075	Agree Conditionally	10/03/12	+106,967	Contract is expected to be extended beyond the approved July 18, 2012 completion due to the following reasons: contractor was slowed due to accommodation of AT&T and PG&E cut-over, for example, contractor has to provide windows of time for AT&T to occupy its work space to provide continuity and efficiency for AT&T cut-over, contractor has to advance cleaning and detailing of vaults to turnover to AT&T and PG&E, these work are typically done as punchlist, contractor now has to sequence work and reallocate resources; SFWD cut-over is taking longer than expected; PG&E gas cut-over was delayed due to inability to access Armani building, this delay held up completion of sewer MH, SFWD connection and restoration on O'Farrell east; added change order work, i.e. additional PG&E conduit at vault 573 and additional excavation for AT&T cut-over at 240 Stockton CMB Agreed contingent on receipt of letter confirming e-mail as presented in the meeting and content viewed related to agreement and remaining actions and release of funds. COMPLETE, NO FURTHER ACTION; CMOD #24	CMOD #29 Approved
1251-0069	082-0069	Removal of abandoned PG&E gas valve (8each) and install anodes	6				+4,737	PG&E asked Synergy to remove all abandoned gas valves (8each) PG&E agreed to reimburse SFMTA (\$4,737) through the Form B process. COMPLETE, NO FURTHER ACTION; CMOD #24	CMOD #24 Approved

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CENTRAL SUBWAY PROJECT

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1251-0070	Core drill primary wall and install interior plumbing at Armani and Disney for the fire service water cutover	2	CMB-0079	Agree	10/10/12	+14,034	Existing fire service inside the building is a thin-wall steel pipe that extends out to the previously existing sub-sidewalk basement. However, 1251 had backfilled the subsidewalk basement per contract, which now made the steel pipe susceptible to corrosion. SFWD does not want to tie-in to the steel pipe due to corrosion issue plus the fact that the pipe is thin walled, which makes welding almost impossible. A ductile iron pipe needs to be installed from the main and into the building. COR #77 (CMB 0079 approval - see Trend CN1251 #'s 52 & 65) COMPLETE, NO FURTHER ACTION; CMOD #28	CMOD #28 Approved
1251-0071	Install a new 8" backflow preventer for the fire service inside Macys Men's building	6					The new water main (installed in the 1251 Contract) is closer to the property line than the existing backflow preventer. State law stipulates that a backflow preventer be installed in between the property's fire suppression system and the water main. The SFWD refuses to make this connection until a proper backflow preventer is installed. SFMTA will insist on Macys to install its own backflow preventer. CLOSED; NO FURTHER ACTION.	
1251-0072	Additional AT&T trench from new vault 5829 to existing vault 127 on Geary east of Stockton	6	CMB-0076	Agree	10/03/12	+23,993	AT&T requested new conduits to maintain continuity between the 2 vaults. AT&T agreed to reimburse SFMTA (\$23,993) through the Form B process. RE Tracking work on FAR CMB Agreed contingent on receipt of confirmation letter from AT&T for costs associated with these three trends (CMB 0076 approval - see Trend CN1251 #'s 43 & 80) COMPLETE, NO FURTHER ACTION; CMOD #14	CMOD #14 Approved
1251-0073	Additional work to install water and electrical utilities for Flower Stand on Geary west of Stockton	1				+17,966	Contract bid allowance for providing utility services for flower stands (UD-14) had been exhausted during relocation of 2 flower stands. A third and final flower stand is still needed to be relocated. COMPLETE, NO FURTHER ACTION; CMOD #22	CMOD #22 Approved
1251-0074	Traffic Signal modification at 5th/Folsom	1	CMB-0074	Agree	08/15/12	+16,429	Due to installation of OCS bypass on Folsom between 4th and 5th Streets, a left turn signal is required at 5th/Folsom. Additional signal heads and modification to the existing traffic signal is necessary. RE Tracking work on FAR (CMB 0074 approval - see Trend CN1251 #'s 50, 67, & 75 also). COMPLETE, NO FURTHER ACTION; CMOD #20	CMOD #20 Approved
1251-0075	Unforeseen conditions related to pole foundation installation for the Folsom OCS Bypass	2	CMB-0074	Agree	08/15/12	+12,568	Contractor encountered unforeseen concrete and brick substructures and abandoned utility lines. RE Tracking work on FAR (CMB 0082 approval - see Trend CN1251#'s 47, 58 & 78) COMPLETE, NO FURTHER ACTION; CMOD #20	CMOD #20 Approved
1251-0076	Adjustment to OCS on Mason Street	2/3	CMB-0082	Agree	10/31/12	+14,988	Modify bracket arm at existing Pole #511 to alleviate tension load and bending of pole. Realign trolley wire on Mason between Geary and Eddy to smoothen transition when shifting from right lane to left lane. Also, add intermediate guywire to prevent excessive sagging of bracket arms at various locations. RE Tracking work on FAR (CMB 0082 approval - see Trend CN1251#'s 47, 58 & 78) COMPLETE, NO FURTHER ACTION; CMOD #26	CMOD #26 Approved
1251-0077	Additional work related to Qwest, TCG and UCCO facilities	2	CMB-0081	Agree Conditionally	10/31/12	+37,181	Qwest, TCG and UCCO requested Synergy to tie-in their existing conduits into the new vaults that Synergy installed per contract. The utility companies are responsible for connecting existing conduits into new vaults, therefore, this request is considered extra work. Private Utilities companies agreed to reimburse SFMTA (\$37,181) through the Form B process. RE Tracking work on FAR CMB agreement contingent upon Cmod package to include evidence from all utilities that cost are reimbursable to SFMTA through the Form B process. COMPLETE, NO FURTHER ACTION; CMOD #25	CMOD #25 Approved

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					Approval Action	Approval Date				Actual/Forecast
1251-0078	082-0078	Unforeseen conditions encountered during excavation and installation of OCS poles along Mason and 5th Streets.	2	CMB-0082	Agree	10/31/12	+27,645	Several obstructions, i.e. buried concrete, boulders, brick, abandoned utilities were discovered during excavation and installation of OCS poles along Mason and 5th Street. RE Tracking work on FAR (CMB 0082 approval - see Trend CN1251 #'s 47, 58 & 76) COMPLETE, NO FURTHER ACTION; CMOD #26	CMOD #26 Approved	
1251-0079	082-0079	Additional work related to installation of PG&E Vaults 467, 571, 573, 586 and 594 including joint trench leading to these vaults	2				+44,530	Unforeseen conditions were encountered during installation of select PG&E vaults including joint trenches leading to these vaults. PG&E agreed to reimburse SFMTA (\$44,530) through the Form B process. RE Tracking work on FAR COMPLETE, NO FURTHER ACTION; CMOD #24	CMOD #24 Approved	
1251-0080	082-0080	Additional work related to installation of AT&T Vaults 5828, 5829, 5830, 5831, 5832 and 5833 including joint trench leading to these vaults	2	CMB-0076	Agree	10/03/12	+56,806	Unforeseen conditions were encountered during installation of select AT&T vaults including joint trenches leading to these vaults. AT&T agreed to reimburse SFMTA (\$56,805) through the Form B process. CMB Agreed contingent on receipt of confirmation letter from AT&T for costs associated with these three trends (CMB 0076 approval - see Trend CN1251 #'s 43 & 72) COMPLETE, NO FURTHER ACTION; CMOD #23	CMOD #23 Approved	
1251-0081	082-0081	PG&E concrete cover versus CDF on electrical duct bank	6	CMB-0107	Agree	02/13/13	+43,882	Contract Plan JT-014 calls for CDF cover on PG&E duct bank. However, PG&E requested to use regular concrete due to heat dissipation problem with CDF. PG&E agreed to reimburse SFMTA (\$43,881) through the Form B process. 12/19/12 - Presented to CMB, direction given to finalize cost and obtain a Form B agreement with PG&E 02/13/13 - Revised CMod presented to CMB. PG&E agreed with negotiated reimbursement amount. COMPLETE, NO FURTHER ACTION	CMOD #24 Approved	
Contract 1251 Totals							+3,962,032	Total Changes to the contract in the amount of 3,962,032 represents an UNDERRUN of allocated contingency in the amount of \$1,405,265.32. Changes that will be Utility Reimbursement credits through the Form B process in the amount of \$1,224,828 will increase the UNDERRUN. Final Contract Closeout Total \$20,794,581 will be reduce by \$7,618,112 Utility Reimbursement credits for a Final Program cost of \$13,176,469 for CN 1251		
Contract 1252	COR No.	PCC No.	1252 Change Description	Change Type	CMB Change No.	Configuration Management Board Agree/Disagree	Decision Date	Actual/Forecast	Comments	Contract Modification No.
1252-0001a	1		AWSS Conflict w/ Low Pressure Water	6	CMB-0091	Agree to Merit Agree to Cost	10/10/12 01/16/13	+13,990	AWSS contract work was made more difficult by the proximity of a water line which was closer than indicated on UT-501. See COR 008 for TIA request. 10/10/12 - Merit info presented to CMB - Agreed 01/16/13 - EE brought to CMB for cost NOT TO EXCEED \$16,900 - Agreed COMPLETE; NO FURTHER ACTION: CMOD #29	CMOD #29 Executed
1252-0001b	1		AWSS Conflict w/ Low Pressure Water					+2,914	Cmod 32 in process to cover remaining balance for markup.	
1252-0002a	2		AWSS Add. Tie-Rods 4th-Harrison	6	CMB-0086	Agree to Merit Agree to Cost	10/10/12 12/19/12	+45,792	The AWSS line must be restrained a certain distance beyond the 90 degree elbow we are installing under contract 1252. The 1252 contract work includes excavating on both sides of this 12-foot portion of pipe. Additional work scope (per Michael Smith @ DPW): Station 162+80 to 162+90 - Restrain the existing 12-inch tee to the existing pipe north of the tee. Restrain any other joints that are not restrained on the existing pipe up to the new pipe to be installed. 10/10/12 - Merit info presented to CMB - Agreed 12/19/12 - EE brought to CMB for cost NOT TO EXCEED \$58,000 - Agreed COMPLETE; NO FURTHER ACTION: CMOD #29	CMOD #29 Executed
1252-002b			AWSS Add. Tie-Rods 4th-Harrison					+9,337	Cmod 32 in process to cover remaining balance for markup.	

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1252-0003a	3	AT&T Vault Conflict-4th & Harrison	6	CMB-0092	Agree to Merit Agree to Cost	10/10/12 01/16/13	+13,263	After excavation of the roadway surface and subgrade at Fourth and Harrison streets an AT&T vault was discovered to be in conflict with the current alignment of the 42" RCP sewer main. Verbal authorization was given by an AT&T representative to make modifications to the vault. COR 003 has been submitted by BIH in response to this issue. Work is to be charged via SFMTA Form B agreement to AT&T. 10/10/12 - Merit info presented to CMB - Agreed 01/16/13 - EE brought to CMB for cost NOT TO EXCEED \$21,089 - Agreed 04/01/13 - CM team must obtain in writing from AT&T a utility agreement for cost reimbursement. COMPLETE; NO FURTHER ACTION: CMOD #29	CMOD #29 Executed
1252-0003b	3	AT&T Vault Conflict-4th & Harrison					+2,749	Cmod 32 in process to cover remaining balance for markup.	
1252-0004	6	PG&E live electrical delays	6	CMB-0088	Agree to Merit Agree to Cost	11/28/12 1/9/2013	+7,402	PG&E lines indicated on contract drawing UD-502 thru 504 were to be abandoned yet were not yet abandoned when BIH started work. They were abandoned on 5/21. 11/28/12 - Merit info presented to CMB - Agreed 01/09/13 - EE brought to CMB for cost NOT TO EXCEED \$7,600 - Agreed 04/01/13 - CM team must obtain in writing from PG&E a utility agreement or cost reimbursement. COMPLETE, NO FURTHER ACTION: CMOD #10 - Final Cost \$7,402.36	CMOD #10 Executed
1252-0005	7	Oil filled pipe @ Launch Box	2	CMB-0093	Agree to Merit Agree to Cost	1/16/13 1/16/13	+9,980	Synergy Demo Crew exposed an existing 6" steel line which had oil in it on the West side of 4th St between Harrison and Bryant. 01/16/13 - Merit info presented to CMB - Agreed 01/16/13 - EE brought to CMB for cost NOT TO EXCEED amount \$10,000 COMPLETE, NO FURTHER ACTION: CMOD #05 - Final Cost \$9,979.81	CMOD #5 Executed
1252-0006	8	TIA - Associated w/ COR 001, COR 002, and COR 003	6		Agree to Merit	10/10/12	+153,000	TIA and Overhead Costs related to COR 001, 002 and 003. 10/10/12 - Merit info associated w/COR's 001, 002 & 003 presented to CMB - Agreed. 01/30/13 Elevation Ladder documentation presented for review of unresolved issue of payment of Indirect costs for TIA submittals- COR 008	
1252-0007	9	MOS - Impacts due to SFWD low psi water line	2	CMB-0143	Agree to Merit Agree to Cost	11/06/13	+5,727	Live PG&E Electrical Lines Conflict: BIH was notified that PG&E had live electrical lines running through each headwall work zone @ Moscone station. 8 inch Low Pressure Water Line Conflict: Contract drawings show this utility to be abandoned and capped prior to work. Synergy struck and damaged the water line. SFWD directed Synergy to excavate a kill hole so they could properly abandon the line. 11/04/12 - COR Evaluation for No Merit presented to CMB for - Agreed. Contractor did not follow contract specification 02.30.00 and 02.41.00 requiring the Contractor to verify the locations of any City or public service utility company facilities that may be affected by excavation and to ensure no damage to existing underground facilities. 11/06/13 - Merit info presented to CMB - Agreed for partial merit of cost associated with excavating two additional "kill-holes on 06/20/12 & 06/21/12. 11/06/13 - EE brought to CMB for cost NOT TO EXCEED \$5,727.00 - Agreed COMPLETE; NO FURTHER ACTION: CMOD #26	CMOD #26 Executed
1252-0008	10	MOS - Demo PGE duct bank / SF City 911 fiber optic line	2	CMB-0094	Agree to Merit Agree to Cost	10/10/12 01/16/13	+4,916	Upon excavation of the MOS north headwall, BIH's subcontractor Synergy Project Management (SPM) uncovered a PG&E duct bank that contained a live San Francisco 911 fiber optic line. 11/14/12 - Presented to CMB - The narrative will be rewritten CMB agrees with partial merit labor work involved in supporting the utility agencies. This item will be brought back to the CMB for approval. 01/09/13 - EE brought to CMB for cost NOT TO EXCEED \$4,919.54 - Agreed 04/01/13 - CM team must obtain in writing from PG&E a utility agreement for cost reimbursement. COMPLETE; NO FURTHER ACTION: CMOD #03 - Final Cost 4,915.54	CMOD #3 Executed
1252-0009	11	MOS - Traffic Signal line re-route south headwall	6	CMB-0095	Agree to Merit Agree to Cost	01/16/13	+37,500	After potholing Synergy discovered several traffic lines which were in the proposed location of the south MOS headwall. Traffic Lines re-routed. Merit info presented to CMB - Agreed 01/16/13 - CMB - NOT TO EXCEED \$37,500 COMPLETE; NO FURTHER ACTION: CMOD #27	CMOD #27 Executed

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1252-0010	12	MOS - Archaeological Standby North Headwall	2	CMB-0096	Agree to Merit Agree to Cost	12/11/12 01/16/13	+16,893	Upon excavation of the MOS north headwall, BIH's subcontractor Synergy Project Management (SPM) uncovered a layer of "Midden" or Native American debris. 12/11/12 - Merit info presented to CMB - Agreed 01/16/13 - EE brought to CMB for cost NOT TO EXCEED \$7,600 - Agreed COMPLETE; NO FURTHER ACTION: CMOD #06 - Final Cost \$16,892.96	CMOD #6 Executed
1252-0011	13	MOS - SL conduit from PG&E vault @ north headwall	6		Agree to Merit	11/28/12	-0-	Permanent power is required to supply an existing Street Light box north of the MOS N headwall. 11/28/12 - Merit info presented to CMB - Agreed 04/01/13 - CM Team must obtain in writing from PG&E a utility agreement for cost reimbursement. Will be issued as a PCC with the approval of PG&E prior to requesting a proposal from the Contractor. CLOSED; NO FURTHER ACTION	
1252-0012	15	LB - Pre-Excavation for Slurry Walls	2	CMB-0087	Agree to Merit Agree to Cost	11/28/12 12/19/12	+125,000	Pre-excavation of slurry wall panels due to CDF encased sewer line. The concrete encasement was found by the Contractor to extend to a depth of 9'-11' below the top of guide wall or street surface. The 8" VCP sewer main and concrete encasement was incorrectly shown in the contract drawings to be approximately 4'-5' below the street surface. 11/28/12 - Merit info presented to CMB - Agreed 12/19/12 - EE brought to CMB for cost NOT TO EXCEED \$96,000 - Agreed	
1252-0013	17	MOS - Impacts @ North and South Headwalls due to live utilities	6	CMB-0144	Agree to Merit Agree to Cost	11/06/13	+43,219	Standby delays related to the discovery of traffic lines within the proposed location of the south MOS headwall. 11/14/12 - COR presented to CMB. CMB requested additional revisions to the evaluation. CMB agrees with partial merit. The COR will be brought back to the CMB for approval. 11/21/12 - COR revisited at mtg for clarification the issue is related to CMB action from item 3 -7/25/12 (Mtg #88) specifically acted on 08/01/12 (CMB Mtg. 89) referred originally as Trend #15. CMB Agreed to No Merit to this contract change. 11/06/13 - Merit info presented to CMB - Agreed to DSC for equipment standby costs for a period of 16 working days. 11/06/13 - EE brought to CMB for cost NOT TO EXCEED \$43,219 - Agreed COMPLETE; NO FURTHER ACTION: CMOD #27	CMOD #27 Executed
1252-0014	19	UMS - Grant street 2 way conversion (e- & striping)	7				-0-	In order to implement a full street closure for Stockton Street at the UMS location the DPT recommended that Grant Street be converted from an existing one-way street to a two way street for vehicular traffic. Closed - Work is done. 07/18/12 - This potential change was brought before the CMB. Board's decision to have DPT perform the work. Work is completed. CLOSED; NO FURTHER ACTION	
1252-0015	20	PROJECT WIDE - Utility Demo limit reduction credit	7				-0-	BIH's subcontractor Synergy Project Management (SPM) would like to minimize the limits of utility demo at the Launch Box, Moscone station, UMS station and TBM Retrieval Shaft locations. SFMTA to BIH/SPM "Build per Plan". CLOSED; NO FURTHER ACTION	
1252-0016	21	UMS - Reduced Duration	5	CMB-0073	Agree Cost (Conditionally)	08/01/12	-0-	No cost change for acceleration of utility relocation, ground improvements (jet grouting), and headwall construction at Union Square/Market Street Station. 08/01/12 - CMB approval condition upon incorporating correctness to backup documentation as required by & documented in CMB mtg. RE to prepare modification. COMPLETE; NO FURTHER ACTION: CMOD #08 - No Cost Change	CMOD #8 Executed
1252-0017	22	MOS - Asbestos Pipe at north headwall	2	CMB-0090	Agree to Merit Agree to Cost	12/12/12 01/09/13	+5,707	Upon excavation of the MOS north headwall, BIH's subcontractor Synergy Project Management (SPM) uncovered friable asbestos-laden transite pipe. 12/12/12 - Merit info presented to CMB - Agreed 01/09/13 - EE brought to CMB for cost NOT TO EXCEED \$6,000 - Agreed COMPLETE; NO FURTHER ACTION: CMOD #05 - Final Cost \$5,707.05	CMOD #5 Executed
1252-0018	23	MOS - Brick Wall #2 discovered @ north headwall	2				+15,784	Upon excavation of the MOS north headwall, BIH's subcontractor Synergy Project Management (SPM) uncovered a buried wall. 11/14/12 COR presented to CMB. Evaluation for merit will be rewritten and brought back to CMB for approval. 11/21/12 - Evaluation of merit presented to CMB - Agreed to No Merit to this contract change.	

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1252-0019	26	MOS - Asbestos Pipe at south headwall	2	CMB-0085	Agree to Merit Agree to Cost	12/12/12 01/09/13	+27,630	Transite pipe was discovered during MOS south headwall excavation. 12/12/12 - Merit info presented to CMB - Agreed 01/09/13 EE brought to CMB for cost NOT TO EXCEED \$30,000 - Agreed COMPLETE; NO FURTHER ACTION: CMOD #15 COMPLETE; NO FURTHER ACTION: CMOD#15 - Final Cost \$27,629.64	CMOD #15 Executed
1252-0020	27	MOS - Oil filled pipe at south headwall	2	CMB-0089	Agree to Merit Agree to Cost	12/12/12 01/09/13	+8,226	A pipe containing oil was discovered during MOS south headwall excavation. 12/12/12 - Merit info presented to CMB - Agreed 01/09/13 CMB - NOT TO EXCEED \$8,600 COMPLETE; NO FURTHER ACTION: CMOD #05 - Final Cost \$8,225.68	CMOD #5 Executed
1252-0021	29	MOS - Todco scaffolding reimbursement	2	CMB-0097	Agree to Merit Agree to Cost	12/12/12 01/16/13	+1,718	1252 contract work requires the removal of scaffolding erected by Fine Line Construction, the contractor performing renovations on the Woolf House. 12/12/12 - Merit info presented to CMB - Agreed 01/09/13 - EE brought to CMB for cost NOT TO EXCEED \$1,717 - Agreed COMPLETE; NO FURTHER ACTION: CMOD #03 - Final Cost \$1,717.83	CMOD #3 Executed
1252-0022	closed	Disputed Work Items - NTP2 vs. NTP3	7				-0-	BIH interpretation of Special Provisions SP-3 NTP2 description includes activities that SFMTA interprets to be within NTP3. These activities include: Ellis Street and Green Street shafts and associated compensation grouting, MOS headwalls and jet grouting, jet grouting at cross passage 5, UMS head walls and jet grouting, OCS removal along Stockton Street from Geary to Ellis, and the TBM retrieval shaft. On April 13, SFMTA released the MOS headwalls and jet grouting, jet grouting at cross passage 5, UMS jet grouting, OCS removal along Stockton Street from Geary to Ellis, and preparatory and utility work necessary for the construction of the retrieval shaft. CLOSED; NO FURTHER ACTION	
1252-0023		Manhole in east guidewall footprint	2				-0-	While performing excavation for the east side guidewalls at the TBM Launch Box, BIH's subcontractor CJA-NCC encountered a manhole near the bottom of the excavation which was unexpected. BIH has stated that removal of the manhole prior to the installation of the guidewalls was necessary to ensure the successful installation of the slurry walls. 05/20/12 - CM Team comment: Synergy traded this COR with SFMTA for shallow Force Main Installation. CLOSED; NO FURTHER ACTION	
1252-0024	closed	2" gas line inside 16" casing	2				-0-	While performing excavation for the Sewer and AWSS trench at the intersection of Fourth and Harrison streets, BIHJV's subcontractor Synergy encountered what was identified to be a 16" depressurized gas main. This gas main contained a 2" gas line which is shown on contract drawing UD-502 to be abandoned/removed. CLOSED; NO FURTHER ACTION	
1252-0025	5	CDF Encasement on 42" RCP	2				+95,000	While performing excavation for the east side guidewalls at the TBM Launch Box, BIH's subcontractor CJA/NCC encountered a CDF backfill at the existing 42" RCP sewer which reportedly had a significantly higher compressive strength than the 50-150 psi, which was anticipated. BIH claims that the CDF conflicted with the construction of the guidewalls and it could not be excavated by conventional means. Escalated to the IRL process	
1252-0026	closed	Damage to Live LPW main at 4th and Folsom	2				-0-	Synergy Demo Crew hit a blow-off valve on the 8" water line at the Southwest corner of the MOS headwalls. SFWD is to install a permanent cap per contract drawing WD-404. CLOSED; NO FURTHER ACTION	
1252-0027		MOS - 76 Gas Station fencing	1				-0-	SFMTA requested BIH to install fencing around the perimeter of the 76 gas station at 4th and Folsom St. Issue closed, cost of fence paid by BIH in return for use of gas station lot. CMB - Temporary use of 800 Folsom Street site for construction staging. Use of this site would be a tradeoff between SFMTA and BIH. The Contractor would maintain the sites security and up-keep in exchange for not billing. CLOSED; NO FURTHER ACTION	
1252-0028		LB - SPTC delays due to concrete encased 8" sewer	2				-0-	Closed. Combined with COR 015. 07/25/12 - Verbal information presented to CMB as a potential change. CLOSED; NO FURTHER ACTION	

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1252-0029	18	MOS - South Headwall re-design	1	CMB-0158	Agree to Cost	05/21/14	+144,000	Costs related to leave end stops in place and a "T-Section" at the Moscone headwalls return walls. 11/14/12 - Presented to CMB. RE is recommending a possible compensation value of \$135K. CMB agrees with partial merit for labor and material cost of this COR. RE will proceed with scoping the work. 04/17/13 - Elevation Ladder of unresolved issue of End Stops presented to CMB - COR 018 09/18/13 - Contractor has submitted a Contract Claim No. 1 Permanent End Stops at MOS Headwall for \$169,379.17. CMB directed the CM Team to draft a letter rejecting the claim. Claim #1 has been negotiated for \$144K. CMod will be issued. 05/21/14 - RON for (COR 18) presented to the CMB to approve the process of issuing the CMod for a NTE of \$140K.	
1252-0030	24	Ellis - Utility demolition	3	CMB-0135	Agree to Merit Agree to Cost	12/6/2012 10/09/13	+35,628	BIH says that no utilities were shown at Ellis; however, Reference Drawing UE-126 shows utilities. 12/06/12 - Merit info presented to CMB - Agreed 10/09/13 - Engineers Cost Comparison brought to CMB for cost NOT TO EXCEED \$35,628.22 - Agreed COMPLETE; NO FURTHER ACTION: CMOD #26	CMOD #26 Executed
1252-0031		Crack Gauges	4				-0-	BIH disagrees with SFMTA on the total number of crack gauges to be installed on the project. Per the contract drawings a total of 926 crack gauges are to be installed. BIH claims that a total of 50 are to be installed. CLOSED; NO FURTHER ACTION	
1252-0032	28	Ellis asbestos abatement	2		Agree to Merit	12/06/12	-0-	A steam line containing asbestos was discovered during potholing at the Ellis Street Shaft. 12/06/12 - Merit info presented to CMB - Agreed 01/10/13 - CM Comment - To be paid out of Environmental Mitigation allowance GE-8.	
1252-0033	30	LB - Class 1 Hazardous Material Haul Off	2	CMB-0159	Agree to Cost	05/21/14	+400,000	BIH trucking costs for Class 1 haul off generated at staging yard. Also see COR 054 regarding Class 1 Haz material haul off for Phase 2. 09/18/13 - Contractor has submitted a Contract Claim No. 2 Haz Mat Removal - Caltrans site (COR 30, 45 & 75) for 708,929.00 CMB directed the CM Team to draft a letter rejecting the claim. Claim #2 has been negotiated for \$400K cost to include COR's 030, 054 & 075. 05/21/14 - RON for (COR 30, 54 & 75) presented to the CMB to approve the process of issuing the CMod for a NTE of \$400K.	
1252-0034	70	LB - Jet Grout Quantity Overrun	4	CMB-0115	Agree to Merit Agree to Cost	03/20/13 04/03/13	+599,900	The contract drawings call for the contractor to determine the extent of jet grouting at the launch box. Bid Item ES-3 has an estimated quantity of 2,831 CY of in-situ treated ground. The Contractor has currently installed 3,929 CY of Soilcrete (Jet Grout) for ground treatment. This translates to an additional quantity of 1,098 CY of ground treatment beyond the quantity listed for Bid Item ES-3. By subtracting 241 CY for the "scallop" portion of the columns the total is 857 CY. 03/20/13 - Merit info presented to CMB - Agreed 04/03/13 - EE brought to CMB for cost NOT TO EXCEED \$599,900 - Agreed COMPLETE; NO FURTHER ACTION: CMOD #22 - Contractor may pursue addl amt. \$168,700 for "scallop" portion of jet grout.	CMOD #22 Executed
1252-0035	unsubmitted	Utility Removal UD-304 and UD-503	6				-0-		
1252-0036	35	Additional Road Base on Fourth Street	2				-0-	BIH's subcontractor Synergy Project Management (SPM) discovered what they believe to be an additional layer of road base under the existing asphalt and road base layer while performing roadway demo work along the west side of Fourth street between Harrison and Bryant St. The additional layer is estimated by BIH/SPM to be approximately 8" - 12" thick. 12/06/12 - Evaluation of merit presented to CMB - Agreed to No Merit for this change. CLOSED; NO FURTHER ACTION	

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1252-0037	DPW permitting potential impacts	7				-0-	DPW Permitting issue to cause potential impacts. DPW is not issuing BIH permits for excavating the MOS headwalls, jet grouting at the LB, and excavating support at the LB, as they claim to have not been able to conduct a thorough review of the project's design documents and were not included in the design process. BIH may be required to re-sequence and stand many other potential impacts w/o said permits. COR package not submitted by Contractor. CLOSED; NO FURTHER ACTION	
1252-0038	Manhole in West Guidewall Footprint	3	CMB-0101	Agree to Merit Agree to Cost	12/05/12 01/23/13	+3,821	While performing excavation for the west side guidewalls at the TBM Launch Box, BIH's subcontractor CJA-NCC unexpectedly encountered a manhole foundation within the excavation at approximate station 165+70. It was necessary to chip away a portion of the existing manhole to gain the necessary clearance to construct the west slurry wall. 12/05/12 - CMB agreed with Evaluation of Merit 01/23/13 - EE brought to CMB for cost NOT TO EXCEED \$4,052.17 - Agreed COMPLETE; NO FURTHER ACTION: CMOD #12 - Final Cost \$3,820.84	CMOD #12 Executed
1252-0039	Panel W-33 Obstruction	2				TBD	While performing excavation for the slurry walls at the TBM Launch Box, BIH's subcontractor CJA-NCC unexpectedly encountered buried (wood pile?) debris located approximately 12 feet below the guide wall within Launch Box Diaphragm Wall Panel W-33, This trend is being tracked separately from Trend 20 because we believe it may be a different structure. BIH has not provided adequate information substantiating the merging of the two trends. CLOSED; NO FURTHER ACTION	
1252-0040	PCC No.1 - Revisions to Moscone North Headwall Elevation (Top)	1	CMB-0099	Agree to Cost	01/16/13	+20,358	SFMTA initiated change to revise headwall elevations to facilitate a change in the roof elevation of MOS station. 01/16/13 CMB - NOT TO EXCEED \$20,500 Item is now being tracked as PCC 01 COMPLETE; NO FURTHER ACTION: CMOD #07 - Final Cost \$20,358.23	CMOD #7 Executed
1252-0041	PCC No. 2 - Revisions to UMS Headwall Concrete and Reinforcement Limits	1				-0-	SFMTA initiated change to revise UMS headwall concrete and reinforcement limits to provide a cost savings. 08/29/12 - Revised PCC presented to CMB PCC No longer being pursued. CLOSED; NO FURTHER ACTION	
1252-0042	Retrieval Shaft - Unmarked 12" Steel Pipe	2	CMB-0108	Agree to Merit Agree to Cost	01/02/13 02/27/13	+1,200	While performing excavation for the joint trench at the retrieval shaft BIH's subcontractor Synergy Project Management (SPM) discovered an abandoned 12" dia. steel pipe which appears to run continuously under Columbus Ave. 01/02/13 - Merit info presented to CMB - Agreed 02/27/13 - EE brought to CMB for cost NOT TO EXCEED \$1,250 - Agreed 04/01/13 - No reimbursement from SFWD. COMPLETE; NO FURTHER ACTION: CMOD #13 - Final Cost \$1,200	CMOD #13 Executed
1252-0043a	LB - Panel W29 Wood Pile	2	CMB-0136	Agree to Merit Agree to Cost	11/28/2012 11/06/13	+41,961	While performing excavation for the slurry walls at the TBM Launch Box, BIH's subcontractor CJA-NCC unexpectedly encountered what appeared to be a wood pile within Launch Box Diaphragm Wall Panel W-29. 11/28/12 - Merit info presented to CMB - Agreed 11/06/13 - EE brought to CMB for cost NOT TO EXCEED \$41,961 - Agreed Direct Cost for CORs 32, 34, 42, 43, 62, 65, 67 have been negotiated. Time Impacts in IRL process. 02/19/14 - Direct cost for COR will be paid as agreed by both parties. Time and Delay claimed by the Contractor will be denied.	
1252-0043b	LB - Panel W29 Wood Pile					+69,173	In SFMTA/BIH "Issue Resolution Ladder" process for Time Impacts. Resolution not met. Direct Costs of \$41,961 (with Markups & Bonds and Insurance) related to COR 32 has been negotiated and will be processed as a separate Contract Modification.	
1252-0044	Ret Shaft - 20" Water Line Conflict	2		Agree to Merit	11/14/12	-0-	During excavation for the joint trench at the retrieval shaft SPM discovered that the MRY Duct Bank is directly above an active 20" low pressure waterline. As a result the work at the Retrieval Shaft must reportedly be altered. 11/14/12 - Presented to CMB, the CMB agrees with some merit of this COR, element of change not define clearly. RE will proceed with scoping the work. Due to PCC 10 CLOSED; NO FURTHER ACTION	

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1252-0045a	34	LB - Panel W28 Wood Pile	2	CMB-0137	Agree to Cost	11/06/13	+43,294	While performing excavation for the slurry walls at the TBM Launch Box, BIH's subcontractor CJA-NCC unexpectedly encountered what appeared to be a wood pile within Launch Box Diaphragm Wall Panel W-28. 11/06/13 - EE brought to CMB for cost NOT TO EXCEED \$43,294 - Agreed Direct Cost for CORs 32, 34, 42, 43, 62, 65, 67 have been negotiated. Time Impacts in IRL process. 02/19/14 - Direct cost for COR's will be paid as agreed by both parties. Time and Delay as claimed by the Contractor will be denied.	
1252-0045b	34	LB - Panel W28 Wood Pile					+69,173		
1252-0046	36	MOS - Catch Basin @ south headwall	3				-0-	A catch basin on the NW corner of 4th and Folsom interfered with the construction of the MOS Headwalls. Removal of the catch basin was needed in order for the headwalls to be built. BIH claims the catch basin was not shown in the contract drawings. Closed due to improper notification. COR package not submitted by Contractor. CLOSED; NO FURTHER ACTION	
1252-0047	37	UMS - 12" steel pipe removal	3	CMB-0132	Agree to Merit Agree to Cost	6/5/2013 08/28/13	+3,379	A 12" steel pipe at the north UMS headwall location interfered with the demolition of other existing UMS utilities. BIH claims the steel pipe was not shown in the contract drawings. 06/05/13 - Merit info presented to CMB - Agreed 08/28/13 - EE brought to CMB for cost NOT TO EXCEED \$3,379.19 - Agreed COMPLETE; NO FURTHER ACTION: CMOD #26	
1252-0048	39	MOS - 16" Steel Pipe removal @ northeast headwall	3	CMB-0102	Agree to Cost	01/23/13	+2,952	SPM removed an unmarked 16" steel pipe from the excavation of the NE MOS Headwall. Construction of the MOS headwall could not commence without this utility being removed. BIH claims the 16" steel pipe was not shown in the contract drawings. 01/23/13 - EE brought to CMB for cost NOT TO EXCEED amount \$2,951.99 - Agreed 04/01/13 - CM team must obtain in writing from PG&E a utility agreement for cost reimbursement. COMPLETE; NO FURTHER ACTION: CMOD #14 - Final Cost \$2,951.99	CMOD #14 Executed
1252-0049	40	MOS - Extra Road Base @ northeast headwall	2				-0-	BIH's subcontractor Synergy Project Management (SPM) discovered what they believe to be an additional layer of road base under the existing asphalt at the NE MOS headwall location. The road base in this location was approx. 20" thick on a patch that was roughly 25' x 25'. Closed due to improper notification. CLOSED; NO FURTHER ACTION	
1252-0050	41	LB - Impacts due to live PG&E electrical lines (Synergy)	6	CMB-0098	Agree to Merit Agree to Cost	01/16/13	+1,217	Based on direction from the SFMTA, Synergy provided a full time flagger for one night shift of work @ the intersection of I-80 off-ramp near 4th/Bryant streets in order to assist PGE while they performed the abandoning of the existing live PGE electrical at the Launch Box location which was shown to be dead in the contract drawings. 01/13/13 - CMB agreed with Evaluation of Merit 01/16/13 - EE brought to CMB for cost NOT TO EXCEED \$1,245 04/01/13 - CM team must obtain in writing from PG&E a utility agreement for cost reimbursement. COMPLETE; NO FURTHER ACTION: CMOD #10 - Final Cost \$1,216.60	CMOD #10 Executed
1252-0051	executed	Contract Amendment No. 2	1				(3,040,713)	COMPLETE; NO FURTHER ACTION: CMOD #02	CMOD #2 Executed
1252-0052a	42	LB - Panel W25 Wood Pile	2	CMB-0138	Agree to Merit Agree to Cost	11/28/12 11/16/13	+42,893	While performing excavation for the slurry walls at the TBM Launch Box, BIH's subcontractor CJA-NCC unexpectedly encountered an obstruction within Launch Box Diaphragm Wall Panel W-25. 11/28/12 - Evaluation of merit presented - CMB agreed 11/06/13 - EE brought to CMB for cost NOT TO EXCEED \$42,894 - Agreed Direct Cost for CORs 32, 34, 42, 43, 62, 65, 67 have been negotiated. Time Impacts in IRL process. 02/19/14 - Direct Cost for COR's will be paid as agreed by both parties. Time and Delay claimed by the Contractor will be denied.	
1252-0052b							+69,173	In SFMTA/BIH "Issue Resolution Ladder" process for Time Impacts. Resolution not met. Amount shown is for potential costs associated with time impacts. Amount is calculated = \$484,210 / 7 (7ea. CORs 32,34, 42, 43, 62, 65, 67)	

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1252-0053	43	LB - Panel W30 Wood Pile	2	CMB-0139	Agree to Merit Agree to Cost	11/28/12 11/06/13	+14,197	While performing excavation for the slurry walls at the TBM Launch Box, BIH's subcontractor CJA-NCC unexpectedly encountered an obstruction within Launch Box Diaphragm Wall Panel W-30. 11/28/12 - CMB agreed with Evaluation of Merit 11/06/13 - EE brought to CMB for cost NOT TO EXCEED \$14,197 - Agreed Direct Cost for CORs 32, 34, 42, 43, 62, 65, 67 have been negotiated. Time Impacts in IRL process. 02/19/14 - Direct cost for COR's will be paid as agreed to by both parties. Time and Delay claimed by the Contractor will be denied.	
1252-0054	44	MOS - 16" steel pipe removal @ southeast headwall	3	CMB-0109	Agree to Merit Agree to Cost	12/06/12 02/27/13	+1,600	SPM removed an unmarked 16" steel pipe from the excavation of the NE MOS Headwall. Construction of the MOS headwall could not commence without this utility being removed. BIH claims the 16" steel pipe was not shown in the contract drawings. 12/06/12 - CMB agreed with Evaluation of Merit 02/27/13 - EE brought to CMB for cost NOT TO EXCEED \$1,800 - Agreed COMPLETE; NO FURTHER ACTION: CMOD #14 - Final Cost \$1,600	CMOD #14 Executed
1252-0055	45	Ret Shaft - Credit for reduced AT&T conduits	6				(331)	Credit to install 2 less conduits in the AT&T infrastructure at the Retrieval Shaft Joint Trench. The conduit notes on page JT-701 of the contract documents require 8 EA 4" conduits as laid out on the AT&T line. The reduced materials would result in 6 EA 4" conduits as a result. 04/01/13 - CM team must obtain in writing from AT&T a utility agreement for cost reimbursement. 09/18/13 - Contractor has submitted a Contract Claim No. 2 Haz Mat Removal - Caltrans site (COR 30, 45 & 75) for 708,929.00. The CMB directed the CM Team to draft a letter rejecting the claim. COMPLETE; NO FURTHER ACTION: CMOD #26	
1252-0056	46	UMS - Unmarked steel pipes (6", 12", 14") / Duct Bank	6	CMB-0103	Agree to Merit Agree to Cost	12/06/12 01/23/13	+7,475	While performing excavation for the utility demolition at the south UMS headwall BIH/Synergy discovered a 6" dia. steel pipe, 16" dia. steel pipe, 18" dia. steel pipe, and a concrete duct bank. BIH claims the utilities were not shown in the contract drawings. 12/06/12 - CMB agreed with Evaluation of Merit 01/23/13 - EE brought to CMB for cost NOT TO EXCEED \$7,461 - Agreed COMPLETE; NO FURTHER ACTION: CMOD #16 - Final Cost \$7,475.28	CMOD #16 Executed
1252-0057	47	Ret Shaft - unmarked 10" steel pipe/duct bank	6	CMB-0104	Agree to Merit Agree to Cost	12/06/12 01/23/13	+2,108	Synergy Project Management (SPM), discovered an abandoned duct bank and 10" steel pipe which traveled underneath Columbus Avenue between Powell and Union Streets. Removal of the duct bank was necessary to complete the construction of the 36" RCP sewer main relocation work in this area. The status of the removal of the steel pipe is uncertain and may have not been necessary for the sewer main relocation. 12/06/12 - CMB agreed with Evaluation of Merit 01/23/13 - CMB - Not to Exceed \$2,201 04/01/13 - No reimbursement from SFWD COMPLETE; NO FURTHER ACTION: CMOD #13 - Final Cost \$2,108.04	CMOD #13 Executed
1252-0058	48	UMS - 3'x5' brick sewer at south headwall	6	CMB-0114	Agree to Merit Agree to Cost	12/06/12 03/13/13	+11,675	Synergy Project Management (SPM), discovered a brick sewer within the utility demolition limits at the UMS South headwall. The sewer encountered was larger than the 12" pipe which was shown in the contract drawings. Removal and disposal of the sewer commenced on September 26th and was completed by September 28th. Removal of the sewer was necessary for headwall construction. 12/06/12 - CMB agreed with Evaluation of Merit 03/13/13 - EE brought to CMB for cost NOT TO EXCEED \$12,474.65 - Agreed COMPLETE; NO FURTHER ACTION: CMOD #16 - Final Cost \$11,675.00	CMOD #16 Executed
1252-0059	49	Ret Shaft - Tree trimming debris haul off	7				-0-	Synergy Project Management (SPM), was requested by the SFMTA to remove and dispose of debris near the Northeast corner of Columbus Avenue and Union Street. The debris resulted from tree trimming activities performed by MUNI operations. SFMTA Letter No. 119 of no merit sent to Contractor. CLOSED; NO FURTHER ACTION	
1252-0060	50	Ret Shaft - 12" steel pipe removal at Union/Columbus	6	CMB-0110	Agree to Merit Agree to Cost	12/12/12 02/27/13	+2,200	On October 4th 2012, the Contractor discovered and removed a 12" Steel pipe at the intersection of Union Street and Columbus Avenue. Removal and disposal of the steel pipe was necessary in order to complete the proposed sewer re-location work near the Retrieval Shaft. Sewer work included the construction of a manhole which had been positioned in the field to avoid an existing MUNI duct bank. 12/12/12 - CMB agreed with Evaluation of Merit 02/27/13 - EE brought to CMB for cost NOT TO EXCEED \$2,600 - Agreed 04/01/13 - No reimbursement from SFWD COMPLETE; NO FURTHER ACTION: CMOD #13 - Final Cost \$2,200	CMOD #13 Executed

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1252-0061	51	Ret Shaft - Elevation design conflict (30" low psi water / sewer)	3	CMB-0123	Agree to Merit Agree to Cost	03/13/13 7/10/2013	+13,386	03/13/13 - Merit info presented to CMB - Agreed 07/10/13 EE brought to CMB for cost NOT TO EXCEED \$21,100. COMPLETE; NO FURTHER ACTION: CMod #26	
1252-0062	53	Chinatown - Night drilling for instrumentation	7				-0-	Closed.	
1252-0063	54	LB Class 2 Hazardous Material Haul Off (Phase 2)	2	CMB-0159	Agree to Cost	05/21/14	-0-	BIH trucking costs for Class 1 haul off generated at staging yard. Also see COR 030 regarding Class 1 Haz material haul off for Phase 1. Claim #2 has been negotiated cost to include COR's 030, 054 & 075. 05/21/14 - RON for (COR 30, 54 & 75) presented to the CMB to approve the process of issuing the CMod for a NTE of \$400K.	
1252-0064		PCC 4 PCC No. 4 - Ret shaft sewer pipe material change	1				-0-	Change approximately 65 ft. of pipe for sewer bypass around the TBM Retrieval Shaft from 3' X 5' oval glass fiber reinforced pipe to a 48-inch (OD) HDPE SD-17 pipe with casing insulator placed inside a 54-inch diameter, 1/2-inch thick steel casing pipe. In addition, delete permanent sheet pile wall that was to have been placed along the west side of the trench to facilitate future maintenance access to the sewer along the shaft. CLOSED; NO FURTHER ACTION	
1252-0065		PCC 8 PCC No. 8 - UMS - Tree Removal	1				-0-	SFMTA is directing removal of a tree at the northeast corner of Stockton and O'Farrell St. CLOSED; NO FURTHER ACTION	
1252-0066		PCC 5 PCC No. 5 - Ret Shaft Water Dist. Pipe Material Change	1				-0-	Change material type of approximately 188 linear feet of 20-inch water line and approximately 125 linear feet of 30-inch water line from Welded Steel Pipe (WSP) to Ductile Iron Pipe (DIP) with TR-Flex joints. Install 6-inch thick concrete cap over 20-inch water line where cover is less than 24 inches. CLOSED; NO FURTHER ACTION	
1252-0067	58	Ret Shaft - Additional 10" steel pipe removal	6	CMB-0111	Agree to Merit Agree to Cost	12/12/12 02/27/13	+700	Work is a continuation of work performed in COR 047. 12/12/12 - CMB agreed with Evaluation of Merit 02/27/13 - EE brought to CMB for cost NOT TO EXCEED \$860.85 - Agreed COMPLETE; NO FURTHER ACTION: CMod #13 - Final Cost \$700	CMod #13 Executed
1252-0068	56	PCC 3 PCC No. 3 - General Detour Signage	1	CMB-0113	Agree to Cost	10/03/12 02/27/13	-0-	Full closure of Stockton Street at Union Square was not anticipated under the 1252 Contract. The implementation of detour signage associated with the full closure of Stockton Street was to occur under the 1300 Contract. After the award of the 1252 Contract it was decided that a full closure of Stockton could be implemented to help reduce the headwall construction durations. As a result of the full closure the City Traffic Engineer has requested that a portion of the 1300 detour signs be installed now under the 1252 Contract to help alleviate traffic congestion and provide better detour signage around Union Square. 10/03/12 - PCC presented to CMB. CMB directed the RE to get a price quote from DPT do the work as a price comparison. This item will be brought back to the CMB at a later date. 11/14/12 - PCC presented to CMB. The CMB did not agree that Central Subway needed to take the lead on implementing detour signage, but suggested that the RE study the traffic activity and at the end of November report findings. 02/27/13 - Cost presented to CMB - Agreed to NTE \$6,152.60 Signs furnished and installed by SFMTA, PCC withdrawn. CLOSED; NO FURTHER ACTION	

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1252-0069	PCC 6	PCC No. 6 - Supplemental instrumentation of BART tunnel lining.	1	CMB-0124 (voided) CMB-0129 (voided) CMB 0131	Agree to Merit Agree to Cost Agree to Cost	10/13/12 07/10/13 08/09/13	+307,861	Implement additional instrumentation of BART tunnel lining: (A) Existing bolt preload force – Determine the actual load in 12 bolts. (B) Bolt force sensor – Install 12 bolt force sensors at bolts for a total of 24 bolts. (C) Rail movement under dynamic train loading – Install dynamic strain gauges (2 per rail, 8 per tunnel). 10/31/12 - PCC presented to CMB for merit. CMB directed RE to proceed with obtaining a price quote from Contractor to perform the work. 05/08/13 - PCC 06 cost comparison was presented. CMB felt \$624K to perform the work was too high and requested IRP be contacted in writing to find out if the additional instrumentation monitoring was still warranted given the new alignment. 06/05: CS Letter No. 1972 presented - Tunnel Design Changes sent to IRP notified them of recent changes and developments in the tunneling contract. 07/10/13 - CMB - Not to Exceed \$650,127.62 IRP's response to SFMTA letter is still pending. 08/07/13 - EE brought to CMB for cost NOT TO EXCEED amount \$305K contingent upon revised estimate to reflect deletion in scope of work. 08/09/13 - Special CMB Mtg to clarify direction and approval to proceed with direction to the Contractor on extra work contained in PCC 06 (BART Work Scope reduction) The CMB Agreed to a NTE revised value of \$307,860 - Agreed COMPLETE; NO FURTHER ACTION: CMOD #19	CMOD #19 Executed
1252-0070	CORs 32, 34, 42, 43, 62, 65, 67	Full Closure of 4th Street	1				TBD	SFMTA allowed full closure of 4th Street in order to facilitate construction of Launch Box Slurry Wall Construction Week Ending 11/04/12 - 11/11/12.	
1252-0071	61	LB - Panel P-17 Buried Obstruction	2	CMB-0125	Agree to Merit	01/02/13	+377	CJA-NCC discovered an unmarked buried water main at Panel P-17, approximately 6' below the guidewall at CTL Station 165+52, while performing slurry diaphragm wall excavation. 01/02/13 - CMB agreed with Evaluation of Merit. 07/24/13 - CMB agreed to cost of reconciliation change - NTE \$1,100 - Agreed COMPLETE; NO FURTHER ACTION: CMOD #26	CMOD #26 Executed
1252-0072a	62	LB – Panel P-9 Buried Obstruction	2	CMB-0140	Agree to Merit Agree to Cost	1/23/2013 11/06/13	+41,587	CJA-NCC discovered a buried obstruction while excavating slurry diaphragm wall panel P-9 at the Launch Box location. 01/02/13 - Presented to CMB for merit, CMB did not agree. CMB suggested inspector's daily tags as backup or reference the tag numbers in the write-up when force account work is involved. 01/23/13 - Revised write up presented CMB agreed with Evaluation of Merit. 11/06/13 - EE brought to CMB for cost NOT TO EXCEED \$41,588 - Agreed Direct Cost for CORs 32, 34, 42, 43, 62, 65, 67 have been negotiated. Time Impacts in IRL process. 02/19/14 - Direct Cost for COR's will be paid as agreed to by both parties. Delay or Time claimed by the Contractor will be denied.	
1252-0072b	62	LB – Panel P-9 Buried Obstruction					+69,173	In SFMTA/BIH "Issue Resolution Ladder" process for Time Impacts. Resolution not met. Amount shown is for potential costs associated with time impacts. Amount is calculated = \$484,210 / 7 (7ea. CORs 32,34, 42, 43, 62, 65, 67)	
1252-0073	63	UMS - 48" Steel Pipe @ southwest headwall	2		Agree to Merit	1/23/13	-0-	BIH/Synergy encountered a buried 48" Diameter steel pipe during work at the UMS S. Headwall. The pipe is located 6 feet from the south UMS headwall and 5 feet from the face of the curb. 01/02/13 - Presented to CMB for merit, CMB did not agree. CMB suggested inspector's daily tags as backup or reference the tag numbers in the write-up when force account work is involved. 01/23/13 - Revised write up presented CMB agreed with Evaluation of Merit COR has been changed to PCC09. CLOSED; NO FURTHER ACTION	
1252-0074a	65	LB – Panel P-12 Buried Obstruction	2	CMB-0141	Agree to Merit Agree to Cost	1/23/2013 11/06/13	+40,522	CJA-NCC discovered a buried obstruction (water main) while excavating slurry diaphragm wall panel P-12 at the Launch Box location. 01/02/13 - Presented to CMB for merit, CMB did not agree. CMB suggested inspector's daily tags as backup or reference the tag numbers in the write-up when force account work is involved. 01/23/13 - Revised write up presented; CMB agreed with Evaluation of Merit. 11/06/13 - EE brought to CMB for cost NOT TO EXCEED \$40,523 - Agreed Direct Cost for CORs 32, 34, 42, 43, 62, 65, 67 have been negotiated. Time Impacts in IRL process. 02/19/14 - Direct cost for COR's will be paid as agreed to by both parties. Delay or Time claimed by the Contractor will be denied.	

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1252-0074b	65		LB – Panel P-12 Buried Obstruction				+69,173	In SFMTA/BIH "Issue Resolution Ladder" process for Time Impacts. Resolution not met. Amount shown is for potential costs associated with time impacts. Amount is calculated = \$484,210 / 7 (7ea. CORs 32,34, 42, 43, 62, 65, 67)		
1252-0075	66		Retrieval Shaft - Unmarked 12" Steel Pipe	2	CMB-0112	Agree to Merit Agree to Cost	01/23/13 02/27/13	+3,700	While performing excavation for the joint trench at the retrieval shaft BIH's subcontractor Synergy Project Management (SPM) discovered an abandoned 12" dia. steel pipe which appears to be a Low Pressure Water Main. 01/23/13 - Merit info presented to CMB - Agreed 02/27/13 - EE brought to CMB for cost. NOT TO EXCEED amount \$3,800 04/01/13 - No reimbursement from SFWD COMPLETE; NO FURTHER ACTION: CMOD #13 - Final cost \$3,700	CMOD #13 Executed
1252-0076a	67		LB - Panel P-10 Buried Obstruction	2	CMB-0145	Agree to Merit Agree to Cost	1/23/2013 11/06/13	+9,984	CJA-NCC discovered a buried obstruction or concrete encased clay sewer pipe, approximately 7' below the top of the guide wall while excavating slurry diaphragm wall panel P-10 at the Launch Box location. 01/02/13 - Presented to CMB for merit, CMB did not agree. CMB suggested inspector's daily tags as backup be attached or reference the tag numbers in the write-up when force account work is involved. 01/23/13 - Merit info presented to CMB - Agreed 11/06/13 - EE brought to CMB for cost. NOT TO EXCEED \$49,984 - Agreed Direct Cost for CORs 32, 34, 42, 43, 62, 65, 67 have been negotiated. Time Impacts in IRL process. 02/19/14 - Direct cost for COR's will be paid as agreed to by both parties. Delay or Time claimed by the Contractor will be denied.	
1252-0076b	67		LB - Panel P-10 Buried Obstruction					+69,173	In SFMTA/BIH "Issue Resolution Ladder" process for Time Impacts. Resolution not met. Amount shown is for potential costs associated with time impacts. Amount is calculated = \$484,210 / 7 (7ea. CORs 32,34, 42, 43, 62, 65, 67)	
1252-0077		PCC 7	PCC No. 7 - BART Temporary Annex Wall	1	CMB-0106	Agree to Cost	01/30/13	+15,500	SFMTA is requesting Contractor construct temporary wall for Bart Annex for SFMTA use. 01/30/13 - NOT TO EXCEED Amount \$15,380 COMPLETE; NO FURTHER ACTION: CMOD #11 - Final Cost \$15,500	CMOD #11 Executed
1252-0078		PCC 9, FA CO 1	PCC No. 9 - UMS Headwall - Unknown Buried Pipe	1	CMB-0100	Agree to Merit Agree to Cost	01/16/13 01/16/13	+75,000	Related to COR 063. SFMTA instructed BIH to perform investigation into the 48" diameter steel pipe as it is a Differing Site Condition. 01/30/13 01/16/13 - EE brought to CMB for cost. NOT TO EXCEED amount \$75,000 04/01/13 - CM team must obtain in writing from AT&T a utility agreement for cost reimbursement. COMPLETE; NO FURTHER ACTION: CMOD #04	CMOD #4 Executed
1252-0079		PCC 10 FA CO 3	PCC No. 10 - Relocation of TBM Retrieval Shaft - Excludes Button Up Costs	1				+5,150,000	Modify Bid Item ST-4 (Construction of Base Bid Permanent Retrieval Shaft) and ES-4 (Ground Treatment at Retrieval Shaft Breakouts) to relocate the TBM Retrieval Shaft to 1731-1741 Powell Street - (Excludes Utility Button Up and Site Restoration) 01/09/13 - Draft PCC10 presented to CMB for Contractor Design Activity to be paid on Force Account. NTE value \$20K presented to CMB as a draft copy, final copy distributed to the Contractor increased to \$50K. 02/20/13 - COST IS NOT REFLECTED HERE - SCOPE IS FUNDED BY OTHER CPT 690 \$\$\$\$ 03/06/13 - Cost proposal received from BIH. SFMTA will develop a detail estimate of what is believed to be the scope of work. 03/13/13 - PCC 10 presented for CMB change approval of \$50K NTE amount to perform design activities. CMB requested CM team return with a more detailed estimate, Contractor's cost proposal of the bulleted items as listed on the PCC and backup documentation as evidence of work completed by the Contractor. COMPLETE; NO FURTHER ACTION CMOD #20 (separate funding source used - CPT 690).	CMOD #20 Executed

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1252-0080	Segment Measuring Frequency	7					RFI 203.1 - In light of gauging frequency, and the difficulties of erecting a ring with cast in gaskets, BIH JV alternately proposes to assemble a ring on the Master ring at an interval of every 500th ring cast. The assembled ring would be comprised of randomly selected segments, or segments chosen by the Engineer. 12/11/13 - The CMB took exception to the deletion of the (\$1.3M) from the log without the consent of the Board. Direction was given to re-insert the credit and add a notation to the "comments section" the reasoning the dollar amount is no longer valid and should be removed. CLOSED; NO FUTHER ACTION	
1252-0081	F21 and Old Navy Instrumentation Proposal	7					TBD Wang Technology is proposing instrumentation changes to the Liquid Level Sensors and Tilt Beams in the basements of Old Navy and Forever 21.	
1252-0082	68 UMS – AT&T Vault Walkway @ N Headwall	2		Agree to Merit	01/16/13	+2,000	SPM discovered an walkway at the UMS north headwall. This walkway is located at the UMS north headwall and connects the south AT&T vault, located within the utility demolition limits, to a north AT&T, located outside of the utility demolition limits. SPM proposes to construct 3'x5' wall to the extents necessary, inside this walkway. The wall will be constructed of plywood and necessary reinforcement in order to create a bulkhead that will isolate the walkway and north vault from the south vault. 01/16/13 - CMB recommendation Contractor/Sub-contractor proceed on Force Account with a "Not to Exceed Amount" \$2K. 04/01/13 - CM team must obtain in writing from AT&T a utility agreement for cost reimbursement. COMPLETE; NO FURTHER ACTION: CMOD #16 - Final Cost \$2,000.00	CMOD #16 Executed
1252-0083	69 UMS - Shoring Impacts due to 48" ATT Pipe at SW Headwall	2	CMB-0153	Agree to Cost	4/23/14	+29,463	On or about 10-25-13, BIH/Synergy were installing sheet piles at the UMS SW head wall to demolish the existing basement wall in conflict with the head wall construction per contract requirements. During the driving of the sheet piles, Synergy struck a buried object which was later identified as a 48" Diameter steel pipe. See PCC 9 and 11. Synergy thought they were hitting a buried tie-back which was shown on the contract drawings. Synergy did not know at the time that they were hitting a buried 48" pipe. After hitting the buried object, Synergy installed additional sheet piles and enlarged the excavation area in order to clear the buried object and drive the sheet piles to the minimum embedment depth. Due to the larger excavation, Synergy is claiming impacts as a result of encountering this DSC including shoring revisions and for installing additional sheets. 06/05/13 - CM TEAM NOTES: COR 069 reopened by BIH to cover cost for enlarging excavation due to encountering the 48" buried pipe. Previously COR 069 was to cover capping and removal of the pipe until it was changed to PCC 11. 02/05/14 - CM TEAM NOTES: In IRL process 04/23/14 - EE brought to CMB for Cost Not to Exceed \$30K - Agreed. Change will be negotiated as a lump sum.	
1252-0084	PCC 11, FA CO 2 PCC No. 11 - UMS – Cap and Remove 48" Steel pipe	1	CMB-0105	Agree to Cost	1/23/13	+150,000	BIH/Synergy encountered a buried 48" Diameter steel pipe during work at the UMS S. Headwall. The pipe is located 6 feet from the south UMS headwall and 5 feet from the face of the curb. This PCC is to complete removal of pipe @ S. Headwall and Investigate and remove pipe if necessary @ the North headwall. 01/30/13 - EE brought to CMB for cost NOT TO EXCEED amount \$150,000 - Agreed 04/01/13 - CM team must obtain in writing from AT&T a utility agreement for cost reimbursement. COMPLETE; NO FURTHER ACTION: CMOD #09	CMOD #9 Executed
1252-0085	71 LB – Ramp Excavation Obstructions	2	CMB-0133	Agree to Merit Agree to Cost	4/3/2013 09/25/13	+5,594	BIHJV encountered numerous groups of wood piles while performing excavation of the Launch Box ramp. The wood piles are approximately 16"+ in diameter and are located along the north and south perimeter walls of the Launch Box ramp excavation area. 01/30/13 - CMB did not agree with merit of change suggestion the RE negotiate w/Contractor for another concession. 04/03/13 - COR merit evaluation presented to CMB again due to a greater number of obstruction encountered. CMB - Agreed to Partial Merit. 09/25/13 - EE brought to CMB for cost NOT TO EXCEED amount \$5,700. COMPLETE; NO FURTHER ACTION: CMOD #26	CMOD #26 Executed
1252-0086	72 Ellis Shaft Jet Grout Obstruction	2					On February 6th, 2013, CJA/NCC was drilling column R3 of the Ellis Shaft and reported hitting an obstruction 52ft below existing grade. The obstruction reportedly caused the jet grout monitor to shear off. At this time it is not known what the obstruction is or if it caused the monitor to be sheared off. Contractor no longer pursuing. CLOSED; NO FURTHER ACTION	

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CENTRAL SUBWAY PROJECT

Project Trend/Change Control Log

Item #		Change Description	Change Type	CMB No.	Change Status		Projected Cost Impact +Exposure/(Benefit)	Comments	Contract Modification Number
					Approval Action	Approval Date	Actual/Forecast		
1252-0087	73	MOS - 16" Pipe removal @ NE Headwall	2	CMB-0118	Agree to Merit Agree to Cost	3/13/2013 05/08/13	+940	BIH-JV's subcontractor, Synergy, encountered an abandoned 16" pipe while installing the 12" waterline at the north headwall of Moscone. The pipe was at the same elevation as the new 12" waterline and therefore needed to be removed to facilitate the installation of the new 12" waterline. 03/13/13 - Merit info presented to CMB - Agreed 04/01/13 - CM team must obtain in writing from PG&E a utility agreement for cost reimbursement. 05/08/13 - CMB agreed to cost of reconciliation of change on FA - NTE \$989.00 - Agreed COMPLETE; NO FURTHER ACTION: CMOD #17	CMOD #17 Executed
1252-0088		Whole Foods - Unknown brick obstruction in Comp Grout Trench	0				-0	BIH has decided not to submit a COR as production was not significantly impacted. CLOSED; NO FURTHER ACTION	
1252-0089	75	Hazardous Waste Disposal Denial - Spoils Containment Cost Impacts	7	CMB-0159	Agree to Cost	05/21/14	-0	BIH submitted change order request (COR) 030 seeking reimbursement for the demonstrated additional costs of excavating, handling and disposing of excavated material found to contain hazardous material to a permitted landfill over that which can be disposed of at an unregulated dump site. The SFMTA refused reimbursement for such costs under the hazardous waste bid item allowance. As a result of this determination, BIH is modifying its approach to the construction and handling operations of tunnel spoils generated during tunneling operations. 09/18/13 - Contractor has submitted a Contract Claim No. 2 Haz Mat Removal - Caltrans site (COR 30, 45 & 75) for 708,929.00 CMB directed the CM Team to draft a letter rejecting the claim. Claim #2 has been negotiated to include COR 30, 54 and 75. 05/21/14 - RON for (COR 30, 54 & 75) presented to the CMB to approve the process of issuing the CMod for a NTE of \$400K.	
1252-0090	76	MOS - 16" Pipe removal @ SE Headwall	2	CMB-0119	Agree to Merit Agree to Cost	03/20/13 05/08/13	+1,116	BIH-JV's subcontractor, Synergy, encountered an abandoned 16" pipe while installing the 12" waterline at the south headwall of Moscone. The pipe was at the same elevation as the new 12" waterline and therefore needed to be removed to facilitate the installation of the new 12" waterline. 03/20/13 - Merit info presented to CMB - Agreed 04/01/13 - CM team must obtain in writing from PG&E a utility agreement for cost reimbursement. 05/08/13 - CMB agreed to cost of reconciliation of change on FA - NTE \$1,116.00 - Agreed COMPLETE; NO FURTHER ACTION: CMOD #17 - Final Cost \$1,116.00	CMOD #17 Executed
1252-0091	77	Comp Grout - WFB-5 Drilling Obstruction	2	CMB-0126	Agree to Merit Agree to Cost	04/03/13	+6,126	On March 06,2013, BIHJV encountered a potential Differing Site Condition (DSC) while drilling the compensation grouting hole WFB-5 located at Whole Foods and more precisely at CTL Station 160+38. This potential DSC consists of an obstruction located at a depth of 9' below grade which prevented CJA-NCC from drilling any further. 04/03/13 - Merit info presented to CMB - Agreed 07/24/13 - CMB agreed to cost of reconciliation change - NTE \$6,125.93 COMPLETE; NO FURTHER ACTION: CMOD #26 - Final Cost \$1,116.00	CMOD #26 Executed
1252-0092	78	Comp Grout - WF & ATT	2		Agree to Merit	3/20/13	-0	BIHJV encountered multiple potential Differing Site Conditions (DSC's) of varying dimensions while excavating the compensation grouting trench for the drill holes located at Whole Foods and AT&T. 03/20/13 - Merit info presented to CMB - CMB agreed there was No Merit for this contract change. 05/24/13 - CM Team Notes - Contractor no longer pursuing due to failure to provide proper notification. CLOSED; NO FURTHER ACTION.	

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1252-0093	79	FA CO 4	Comp Grout - Old Navy	2	CMB-0116 CMB-0142	Agree to Merit Agree to Merit (addl) Agree to Cost Agree to Addl Cost	03/20/13 04/24/13 04/26/13 11/06/13	+259,373	BIHJV encountered a potential Differing Site Condition (DSC) while sawcutting the pavement for the compensation grouting holes located at Old Navy. The original design was to drill the compensation grout holes between two existing PG&E lines. It was discovered in the field that there is not enough clearance between the existing PG&E lines for the original design to be possible and multiple other potential DSCs were also encountered including, but not limited to, tile duct banks, concrete of unknown contents, and steel pipes. 03/20/13 - Merit info presented to CMB - Agreed 04/01/13 - CM team must obtain in writing from PG&E a utility agreement for cost reimbursement. 04/24/13 - Adtl info presented for rationale for Contractor to demolish and re-drill rig due to insufficient clearance between existing PG&E lines to drill the grout holes - Agreed 04/26/13 - COR presented at a special CMB mtg to notifying CMB of need to have Contractor perform work on FA4 for a NTE amount of \$70K. 05/15/13 - Adtl request for funds to cover (Inefficiencies) - agreed for a not to exceed amount \$152,000. 11/06/13 - EE brought to CMB for cost NOT TO EXCEED \$37,380 for the (remaining cost) parts 2 and 3 of 4 - Agreed COMPLETE; NO FURTHER ACTION: CMOD #23	CMOD #23 Executed
1252-0094	80		MOS – Asbestos Wrapped 20" water line @ Headwalls	2		Agree to Merit	04/03/13	-0-	BIHJV's subcontractor, Synergy Project Management was performing the installation of low pressure water distribution piping at the Moscone north headwall and discovered an unknown material wrapping around the existing 20" waterline which appeared to contain asbestos material. 04/03/13 - Merit info presented to CMB - Agreed 07/10/13 - CM Team Notes - To be paid out of Environmental Mitigation allowance GE-8.	
1252-0095	81		12" Waterline Tee Connection Location (MOS South)	2		Agree to Merit	04/03/13	+3,001	BIHJV's subcontractor, Synergy Project Management, encountered a potential Differing Site Condition (DSC) upon exposing the tie-in point for the 12" waterline at the south headwall of Moscone. The potential DSC consists of two 45 degree elbows in the existing 12" waterline at the point of the tee connection. SFWD has surveyed the field conditions and indicated that the tee connection will need to be moved to the west. 04/03/13 - Merit info presented to CMB - Agreed COMPLETE; NO FURTHER ACTION: CMOD #17 - Final Cost \$3,000.00	CMOD #17 Executed
1252-0096	82		MOS 20" Conflict with 16" AWSS @ South Headwall	2	CMB-0160	Agree to Merit Agree to Cost	04/30/14 05/21/14	+40,152	Upon exposing the existing 20" waterline at the south headwall of MOS, in preparation for installing the new 20" waterline shown on WD-403 and amended by RFI 0155, BIHJV's subcontractor Synergy Project Management encountered a potential DSC. The potential DSC consisted of a crossing conflict between the new 16" AWSS, the new 20" waterline, and the existing 6" PE gas. These three utilities cross at multiple locations however the existing depths are roughly the same. 01/22/14 - Item reviewed at the CMB mtg as a status update to potential cost exposure. Item now being discussed in the IRL process. 04/30/14 - Merit info presented to CMB - Agreed. RE will negotiate a credit for amount no less than \$25K. 05/21/14 - Updated info presented to the Board. Further negotiation revealed an extra 25ft was not accounted for. CMB approved a change Not to exceed \$12K to cover the difference and contractor's claim of standby cost	
1252-0097	83		Ellis Shaft Concrete Obstruction	2	CMB-0127	Agree to Merit Agree to Cost	04/17/13 07/24/13	+1,420	During excavation for the Ellis Street Shaft, BIHJV's subcontractor, CJA-NCC, encountered a concrete obstruction at approximately 10 feet below grade. CJA-NCC spent 4 hours removing the obstruction. 04/17/13 - Merit info presented to CMB - Agreed 07/24/13 - CMB agreed to cost of reconciliation change - NTE \$1,424.52 - Agreed COMPLETE; NO FURTHER ACTION: CMOD #26	CMOD #26 Executed
1252-0098	84		Crate & Barrel Water Intrusion	2				-0-	Water was discovered seeping into the Crate & Barrel basement in concert with secant pile installation at Pile #SRV-A. At the time, pile excavation was approximately 90 feet deep. BIHJV's subcontractor, CJA-NCC, stopped pile installation and placed lean concrete within the pile excavation. This allowed them to continue secant pile construction on other piles until which time SFMTA could provide appropriate mitigation for the water leak. 07/03/13 - CM Team will deny merit, notice not received within 7 days. CLOSED; NO FURTHER ACTION	

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CENTRAL SUBWAY PROJECT

Project Trend/Change Control Log

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1252-0099a	PCC 12, FA CO 6 PCC No. 12 - Modifications to Tunnel Alignment at Market Street - Adv. Materials Purchase	1	CMB-131	Agree to Merit Agree to Cost (Conditionally)	08/14/13 08/14/13	+45,637	IFB Tunnel Profile conflicts with micro-piles installed under Contract 1251. Tunnel Profile needs to be revised (lowered) such that TBM and Tunnel structure is below previously installed micro-piles. Contractor shall revise compensation grouting design to conform to Contract requirements given the revised tunnel alignment. 04/03/13 - CMB agreed to Micropile profile change being forwarded to the Contractor. 04/10/13 - Updated alignment was presented superseding 04/03/10 version - (lowered 4.9%) 04/10/13 - Original Contractor submittal needs to be evaluated to verify the new alignment has been incorporated. 08/14/13 - Merit Evaluation and PCC 12 Cost NTE (Construction portion) was presented to the CMB for approval. The CMB agreed to merit contingent upon verification signature by the Designer (DP1) of additional work and cost associated with the change. NTE Value \$41,470.01 - Agreed COMPLETE; NO FURTHER ACTION: CMOD #28	CMOD #28 Executed
1252-0099b	PCC 12 PCC No. 12 - Modifications to Tunnel Alignment at Market Street - Initial Design Costs					+39,930	Contractors proposal for PCC 12 is \$1,668,434. Amount shown represents Cmod 34 in process for negotiated amount for Initial Design Costs (\$39,930).	
1252-0099c	PCC 12 PCC No. 12 - Modifications to Tunnel Alignment at Market Street - Construction Costs					+1,582,868	Contractors proposal for PCC 12 is \$1,668,434. Amount shown (1,582,868) represents Construction Costs proposed by Contractor. Amount under negotiations.	
1252-0100	85 SFWD Impacts at MOS North	2				+100,000	BIHJV's subcontractor CJA-NCC is in the process of constructing the Moscone Station headwalls, the sequence of construction is such that it requires the 12" and 20" waterlines on the eastside of 4th street to be rerouted prior to completing the headwalls. In accordance with the Contract the San Francisco Water Department (SFWD) is responsible for completing the waterline reroutes (chlorination and tie-in) in a specified duration. BIHJV claims the SFWD failed to complete this work in the contractual durations. As a result, BIHJV claims the headwall construction operation has been incurring stand by costs. 04/10/13 - Item reviewed at CMB meeting during review of Trend/Change Log COR's. CM team contends this is not a valid change and will reject the Contractor's claim of merit. Contractor has submitted a notification of Claim #3 for standby cost for this item. The CM Team will respond by 02/14/14.	
1252-0101	87 Cross Passage 5 - Value Engineering Change Proposal	5				(2,674)	As indicated in Contract Drawing No. ES-144, ground treatment for the excavation of CP5 was anticipated to be performed using jet grouting methods. BIHJV proposes to perform ground freezing from within the tunnels as an alternative ground treatment methodology, thereby avoiding the need to disrupt and impact the public by occupying 4th Street for an extended period. 04/24/13 - Item reviewed at CMB mtg. during review of Trend/Change Log COR's. CMB suggested a credit from the Contractor should be received for Bid Item ES-5. In addition suggested a minimal review of the BIH's proposed ground freezing method be done by the PB. COMPLETE; NO FURTHER ACTION: CMOD #25	CMOD #25 Executed
1252-0102	UMS - Secant Pile SRV-J Obstruction DSC	2				-0	BIHJV's subcontractor, CJA-NCC, encountered a potential Differing Site Condition (DSC) while drilling for UMS Secant Pile #SRV-J. The DSC consists of what appears to be an abandoned utility pipe located approximately 10 feet deep. 04/24/13 - Information presented to CMB during review of Trend Log. CM Team states COR merit will be rejected due to notification of change not met in timely manner per the contract docs. 05/24/13 - CM Team update - Contractor no longer pursuing due to untimely notification of event. CLOSED; NO FURTHER ACTION	
1252-0103	88 SFWD Impacts at MOS South	2				-0	BIHJV's subcontractor CJA-NCC is in the process of constructing the Moscone Station headwalls, the sequence of construction is such that it requires the 12" and 20" waterlines on the eastside of 4th street to be rerouted prior to completing the headwalls. In accordance with the Contract the San Francisco Water Department (SFWD) is responsible for completing the waterline reroutes (chlorination and tie-in) in a specified duration. BIHJV claims the SFWD failed to complete this work in the contractual durations. As a result, BIHJV claims the headwall construction operation has been incurring stand by costs. 05/08/13 - Information presented to CMB during review of Trend Log. CM Team states COR will be rejected due to no merit. This item is not on the critical path. 06/17/13 - Contractor no longer pursuing. CLOSED; NO FURTHER ACTION	

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CENTRAL SUBWAY PROJECT

Project Trend/Change Control Log

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1252-0104	PCC 13, FA CO 5 PCC 13 - SFWD Excavation, Support and Backfilling	1	CMB-0122 CMB-0128	Agree to Cost Agree to Addl Cost	06/19/13 08/09/13	+33,982	Excavation, support and restoration work at two locations required to facilitate fitting/valve installation work by the San Francisco Water Department. Installation of valves are to facilitate fire service connection cutover and cutting off of the existing water main. The existing water main is in the footprint of the UMS station piles and is to be abandoned. 06/05/13 - CMB agreed to change required; work must be completed sometime in June 2013 06/19/13 - Cost estimate presented; CMB agreed for a NTE of \$20K 08/07/13 - CMB viewed the estimate requesting the narrative be rewritten to tell the entire story of what has generated the change. 08/09/13 - Special CMB Mtg to clarify direction and approval to proceed with direction to the Contractor on extra work contained in PCC 13 (Macy's Backflow work). CMB approved additional work and scope for a NTE value of \$14,100 for a total change value of \$34,100 COMPLETE; NO FURTHER ACTION: CMOD #18 executed for \$20K. Supplementary CMOD #24 executed for \$13,982 was issue for remaining cost.	
1252-0105	90 Abandoned Well at MOS Panel N-4	2				-0-	BIHJV's subcontractor, CJA-NCC, discovered an obstruction that appears to be an abandoned monitoring well within the Moscone Slurry Wall Panel "N-4". Contractor claims impacts resulting from this alleged DSC include, but are not limited to, excavation inefficiency, the required backfilling of the panel with lean concrete on multiple occasions, and re-excavations of the panel. 06/19/13 - Information presented to CMB during review of Trend Log. CM Team states COR will be rejected due to several reasons of "no merit" items in in the IRL process	
1252-0106	0 PCC No. 9 and 11 - Remaining Budget	0				(71,885)		
1252-0107	92 Credit - North headwall panel N-2 at Moscone	7				(4,943)	During installation of the reinforcement cage at panel N-2 at the Moscone North Headwall a 1-inch dia. Polyester sling used for lifting could not be detached from the reinforcement cage. The slings were then casted in-place. SFMTA requested a credit CO for the CN 1300 contractor to demolish the concrete and slings and replace the structural concrete. 07/10/13 - NCR condition of the wall be provided in order to prepare engineer's estimate for credit amount. Negotiated amount to be deducted from pay estimate. COR has been rescinded.	
1252-0108	91 Credit - Secant pile SRV-H, UMS south headwall	7				(263)	During concrete placement, the dummy steel beam that was used to hold down the secant pile steel beam reinforcement for pile SRV-H @ the UMS south headwall could not be removed and was poured in-place. SFTMA requested a credit CO for the CN 1300 contractor to demolish this beam between El. 16.66' and the beam top. Negotiated amount to be deducted from pay estimate. COR has been rescinded.	
1252-0109	93 Credit - 65 feet of water pipe not installed at MOS	7				-0-	Contract Drawings WD-403 & WD-404 shows the 20" low pressure water line cutting through an area in the intersection where the joint trench is in the way. BIHJV's subcontractor, Synergy Project Management, with SFMTA's concurrence, installed the water line tie-in per a configuration which resulted in approximately 65' less line required to be installed. SFMTA requested a credit CO to eliminate 65' of the line. CLOSED; NO FURTHER ACTION	
1252-0110	94 Credit - Switching of the 12" and 20" lines at MOS	3				(30,466)	It was discovered that the field locations of the 12" water line and 20" water line were actually "switched" from the location shown in contract drawing WD-402 Rev.0. SFMTA requested a credit CO as less 20" water line was required to be installed than was originally anticipated.	
1252-0111	95 Green St Shaft - Design Cost Impacts for Jet Grout	7				-0-	BIHJV: "BIH and CJA-NCC are in receipt of the SFMTA's revised submittal review comments for Submittal No 31.43.14-003 (review cycle 3) dated July 10, 2013, where the SFMTA determined that the previously submitted content does not fulfill the contract requirements. The submittal status was changed from "Approved" on March 21, 2013, to "Disapproved - Resubmit" on July 10, 2013. The SFMTA states that the submittal was reviewed in further detail and it was determined the submittal didn't fulfill the contract requirements. This new submittal determination will result in additional costs to the SFMTA." 07/24/13 - Information presented to CMB during review of Trend Log. CM Team preparing letter of no merit, due to disagreement of dwg shown. CLOSED; NO FURTHER ACTION	

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1252-0112	96	Micropiles @ UMS Tangent Pile SRB-H	2	CMB-0155	Agree to Merit Agree to Cost	7/31/2013 05/07/14	+48,810	Excavation for battered secant pile SRB-H began on July 12. At approximate depth of 30', CJN reported hitting an obstruction. Two, 36" and 45" long, No. 18, Dywidag bars were discovered within spoils of the first bite of the clamshell bucket. The 2-1/2" diameter bar was consistent with the micro piles installed in the previous contract. 07/24/13 - Draft merit evaluation presented to CMB. CM Team reported further investigation needed to verify survey location of micropiles. CMB requested a specific dwg of 1251 As Built of piles be presented at next CMB. 1251 Contractor will be put on notice referencing the CS CN1251 Ltr. #018 - Future Potential Costs Due to Incorrect Micropile Placement. 07/31/13 - Merit Approval presented to CMB - Agreed. Notification of Possible Micropile Obstruction to CN1252 and possible CN1300 work was sent to CN1251 Contractor. COR was rescinded. CLOSED; NO FURTHER ACTION	
1252-0113		Relocation of TBM Retrieval Shaft - Columbus Ave. Restoration	1				+261,057	Modify Bid Item GE-3 (Utility Demo, Sewer, Road Demo, Pavement Restoration, etc.) to relocate the TBM Retrieval Shaft to 1731-1741 Powell Street - (Includes Utility Button Up and Site Restoration Only) 07/24/13 - Information presented to CMB during review of Trend Log. CMB requested LS Bid Item be broken-down based on contract work to see how much money would be put in to perform the restoration button up cost. In addition the CMB requested the item description be change to "Columbus Ave. Restoration" in order to not confuse it with PCC 10 Retrieval Shaft work. COMPLETE; NO FURTHER ACTION: CMOD #21	CMOD #21 Executed
1252-0114	97	Ellis Shaft – TAM ES2-01 and ES2-17	2		Agree to Merit	08/28/13	-0-	BIHJV's subcontractor, CJA-NCC, discovered gravel material within the drill spoils from two separate Ellis Shaft TAM installations, TAM ES2-01 and ES2-17 08/14/13 - Item reviewed at CMB during review of Trend/Change Log COR's. GBR's will be checked to see if gravel material is known to exist in the drill location. 08/28/13 - Merit info presented to CMB - Agreed COR Rescinded CLOSED; NO FURTHER ACTION	
1252-0115	98	Ellis Shaft – TAM ES2-16	2		Agree to Merit	08/28/13	-0-	BIHJV's subcontractor, CJA-NCC, discovered gravel material within Ellis Shaft TAM installations, TAM ES2-16 08/14/13 - Item reviewed at CMB during review of Trend/Change Log COR's. GBR's will be checked to see if gravel material is known to exist in the drill location. 08/28/13 - Merit evaluation presented to CMB - Agreed COR Rescinded CLOSED; NO FURTHER ACTION	
1252-0116	99	MOS – AWSS Vault Over pour @ South Headwall)	2	CMB-0134	Agree to Merit Agree to Cost	09/25/13	+2,394	BIHJV: "While performing AWSS work at the MOS South Headwall, Synergy crews found the mechanical joint Tee bolts, required for the AWSS point of connection, to be completely encased in concrete. The concrete encasement appeared to be concrete over pour remaining from a previous contractor's AWSS vault wall pour." 08/14/13 - Item reviewed at CMB during review of Trend/Change Log COR's. 09/25/13 - Merit evaluation presented to CMB - Agreed. 09/25/13 - Eng. Est. presented to CMB for cost NOT TO EXCEED \$2,400 - Agreed COMPLETE; NO FURTHER ACTION: CMOD #26	CMOD #26 Executed
1252-0117	100	Ellis Shaft TAM ES2-08	2		Agree to Merit	08/28/13	-0-	BIHJV: "August 12, 2013, BIHJV's subcontractor, CJA-NCC, struck a hard unknown object while drilling the Ellis Shaft TAM ES2-08." 08/28/13 - Merit evaluation presented to CMB - Agreed CMB requested a investigation plan to be developed and included in this COR if the plan is implemented. COR Rescinded. CLOSED; NO FURTHER ACTION	
1252-0118	101	Ellis Shaft TAM ES2-11	2				-0-	BIHJV's subcontractor, CJA-NCC, discovered gravel material within Ellis Shaft TAM installations, TAM ES2-11 09/11/13 - Viewed at CMB during review of Trend/Change Log COR's. CLOSED; NO FURTHER ACTION	

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1252-0119	102	UMS Jet Grout Column 18 DSC Headwall	2	CMB-0156	Agree to Merit Agree to Cost	05/07/14	+13,758	While drilling down on column #18 at the UMS south headwall, BIHJV's subcontractor, CJA-NCC, encountered a hard unknown obstruction. 09/11/13 - Item reviewed at CMB mtg. during review of Trend/Change Log. 10/16/13 - DSC presented for merit approval - No action was taken by the CMB. The CM will investigate if the 1252 Contractor received the 1251 As built information by the start of operations. COR Rescinded. CLOSED; NO FURTHER ACTION	
1252-0120	103	Retrieval Shaft Additional Slip Lining Pipe Qty	4					RFI 251.1 SFMTA Response: Specification 33 31 00 1.01.A.22 Sewer Work, states, " Slip lining existing 3-foot by 5-foot brick sewer with 16-inch and 24-inch diameter HDPE Pipe (polyethylene pipe) nominal size SDR 26." As such, slip lining is to be performed for both the 16" and 24" diameter HDPE pipe. Branches indicated in the supplied sketch to be relined along Stockton and Columbus are acceptable. In addition, the 33-ft long branch that crosses the alignment at CTL 86+35 must also be relined. Acceptable alternative (to fused HDPE) pipe materials and sizes for this branch can be proposed by BIH. BIH shall submit the propose alternative for this branch of pipe for SFMTA review. The use of coupled PVC is not acceptable." 09/11/13 - Item viewed at CMB mtg. during review of weekly Trend/change log. No dwg for this work only a table. CM Team working with designer to make the determination. Item now being tracked under PCC 16. CLOSED; NO FURTHER ACTION	
1252-0121	105	Retrieval Shaft Relocation of Seismograph	1					BIHJV: "BIHJV's instrumentation subcontractor, Wang, was directed to relocate one of the vibration monitoring devices (Seismograph) installed at the Retrieval Shaft area to monitor vibration induced by demolition operations of the existing Pagoda Theater building." 09/11/13 item reviewed at CMB meeting during review of weekly Trend/Change log. CMB doesn't agree with the relocation charge and requested a better definition of the item. 01/22/14 - Item viewed at CMB as an status update. SFMTA letter No. 241 sent to Contractor denying merit. CLOSED; NO FURTHER ACTION	
1252-0122	89	UMS - Suspended Remobilization of Jet Grout Rig	7					BIHJV: "The SFMTA directed BIHJV/CJA-NCC to suspend the planned remobilization of the Jet Grout Rig at the UMS location due to external affairs with local UMS businesses." 09/11/13 - Item reviewed at CMB mtg. during review of weekly Trend/change log. CMB questioned the timeliness of the COR also requesting a better definition of the item. Item has been elevated to the Issue Resolution Ladder (IRL) process.	
1252-0123	104	Retrieval Shaft - Additional Sewer Slip Lining 16" HDPE Pipe	4					BIHJV: "BIHJV submitted RFI Nos. 275, 275.1 and 275.2 requesting clarification about specific sewer slip lining runs at the Retrieval Shaft, see Attachment Nos. 2, 4 and 6. The SFMTA responded, via RFI No. 275.2, stating that the slip lining is to be installed in a stacked configuration with the 24" over the 16" HDPE pipe, see Attachment No. 7. BIHJV and Synergy believe the SFMTA's response to install stacked HDPE slip lining pipes is additional work as the contract documents do not support this statement." 10/02/13 - Item reviewed at CMB mtg. during review of the weekly Trend/change log update. The CM states the DSC maybe eliminated. Waiting for a response from PUC now there is a as built condition. Letters are being written between SFMTA and SFPUC. 01/22/14 - Item viewed at CMB mtg as an update to potential cost exposure. CLOSED; NO FURTHER ACTION	
1252-0124	PCC 17	Green Street Sewer Changes	2		Agree to Merit	9/25/2013		In preparation to beginning slip lining work at the intersection of Columbus/Green/Stockton, the Contractor performed a site investigation of the existing 3'x5' brick sewer. The Contractor discovered 4 unknown pipes intersecting the sewer. Received email from DPW on Oct 18 regarding proposed new direction to spray mortar sewer line in lieu of slip lining. DPW also requested additional slip lining on Columbus from Sta. 83+50 to Sta. 85+50. 09/25/13 - DSC presented for merit approval - Agreed. CMB directed the CM Team to ask the Contractor for recommendation to slipline as much of the sewer line as possible without rerouting the conflicting pipe lines. 01/22/14 - Item viewed at CMB mtg as a status update to projected cost exposure. Item will be tracked under PCC17.	

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1252-0125	PCC 14	Modifications to AWSS Facilities at 4th and Bryant Streets	1				+35,925	Deletion of 12" AWSS diagonal sleeved pipe crossing and hydrant lateral. Installation of 12" AWSS restrained pipe and hydrant lateral. 10/16/13 - Draft PCC reviewed at CMB. The Board is in agreement with the modification. 10/23/13 - Engineers estimate for new work \$136,478 and deleted work (\$163,382) was presented to the CMB. PCC will be forwarded to the Contractor to price the work. In addition a cost estimate will be done for the work which would have been under the 1300 contract. 04/16/14 - CMB authorize the RE to negotiate with the Contractor for a amount up to \$35K.	
1252-0126	108	Ellis shaft and Old Navy Grouting	2				-0-	BIHJV's subcontractor, CJA-NCC, claims to have discovered material (cemented zones) different than that described in the Geotechnical Baseline Report in the Ellis Shaft and Old Navy Grouting Zones. 10/23/13 - Item reviewed at CMB mtg. during review of weekly Trend/Change log. The CM stated this item will be rejected, due to a lack of information being supplied by the Contractor to validate the COR. SFMTA sent Letter No. 247 & 253 denying merit. CLOSED; NOT FURTHER ACTION	
1252-0127a	FA CO 8	Remove and replace material at Retrieval Shaft CSM wall	1				+22,300	Contractor to remove hazardous material (approximately 250 CY) found in the footprint of the Retrieval Shaft Cutter Soil Mix (CSM) wall and replace with both clean material found on-site (approximately 190 CY) and import material (approximately 60 CY). 10/30/13 - Item reviewed at CMB during review of weekly Trend/Change log. Work to proceed on FA for a NTE amount of \$22,300. COMPLETE; NO FURTHER ACTION: CMOD #28	CMOD #28 Executed
1252-0127b	FA CO 8	Remove and replace material at Retrieval Shaft CSM wall					(6,339)	Approximate remaining balance of Executed CMod associated with FA CO 8. SFMTA current reconciled FA costs are \$15,961. Final CMod required to reconcile balance. See Trend 127a.	
1252-0128a	FA CO 7	Acceleration of Work Activities at Retrieval Shaft	1				+5,000	SFMTA to compensate BIHJV for premium time incurred on October 5th, 2013 to accelerate the completion of the site work and soundwall at the Retrieval Shaft. 11/06/13 - Item reviewed at CMB mtg. during review of weekly Trend/Change log. 01/22/14 - Item reviewed at CMB mtg as a status update to potential cost exposure. COMPLETE; NO FURTHER ACTION: CMOD #28	CMOD #28 Executed
1252-0128b	FA CO 7	Acceleration of Work Activities at Retrieval Shaft					(4,356)		
1252-0129	0	UMPs on 96-inch Sewer	2				-0-	BIHJV's subcontractor Wang Technology claims to have encountered a DSC (brick structure) while drilling for utility monitoring points on Howard Street. 11/06/13 - Item reviewed at CMB mtg. during review of weekly Trend/Change log. CLOSED; NO FURTHER ACTION	
1252-0130	0	Ret Shaft Sewer Changes	2				-0-	BIHJV's subcontractor Synergy Project Management claims to have encountered the following DSCs while performing an investigation into planned slip lining work at the intersection of Columbus/Union/Powell: Internal clearance issues, unforeseen lateral connections, mixed debris and grease buildup inside sewer, and tighter radius than was anticipated for the planned junction structure. 11/20/13 - Item reviewed at CMB mtg. during review of weekly Trend/Change log. The Board suggested the CM Team ask the PUC to tell us what they would like the Contractor to do. 02/05/14 - FACO 10 was presented for consideration to add a 16" pipe. The CMB took no action. Direction was given to investigate the use of the pipe and to determine the most cost effective approach to reach PUC's desired equivalency of the 36" pipe removed. CLOSED; NO FURTHER ACTION	
1252-0131	0	Obstruction hit at CSM panel W6	2	CMB-0146	Agree to Merit Agree to Cost	12/11/13	+9,000	BIHJV's subcontractor Drill Tech claims to have encountered a DSC (unknown steel members) while performing Cutter Soil Mixing (CSM) on panel W6 at the Retrieval Shaft. 11/20/13 - Item reviewed at CMB mtg. during review of weekly Trend/Change log. This item will be tracked on FA. 12/11/13 - Merit evaluation presented to CMB - Agreed. EE presented for cost NOT TO EXCEED \$9,000 - Agreed COMPLETE; NO FURTHER ACTION: CMOD #28	CMOD #28 Executed

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1252-0132	COR 111	0	Material Hardness at Retrieval Shaft	2			+259,486	BIHJV's claims to have encountered ground material characteristics that are significantly harder than anticipated based on the information provided during the negotiations of PCC 10 (Relocation of Retrieval Shaft). 11/20/13 - Item reviewed at CMB mtg. during review of weekly Trend/Change log.		
1252-0133	0	PCC 15	Deleted AWSS Work at Union St. and Columbus Ave	1			(187,181)	PCC 15 issued to: 1.) Delete all work associated with the removal and disposal of the Auxiliary Water Supply System (AWSS) utilities as shown on Contract Drawing No. AW-501.1 Rev.0. 2.) Delete all work associated with furnishing and installation of AWSS utilities as shown on Contract Drawing No. AW-501.9 Rev.0. Note: Monitoring of existing AWSS line to be performed in lieu of installation of new AWSS utilities. 12/11/13 - Item reviewed at CMB during review of weekly Trend/Change log. 02/19/14 - Cost revised based on Eng Est. and scoping meeting w/Contractor.		
1252-0134	0	PCC 18	Retrieval Shaft Site Supervision	1			-0	PCC 18 issued to provide for the Contractor's supervision and engineering services during the compensation grouting activities at the Retrieval Shaft. 01/08/14 - Item reviewed at CMB meeting during review of weekly Trend/Chang log. 01/29/14 - PCC presented for review. CMB agreed with change. CLOSED; NO FURTHER ACTION		
1252-0135	0		Retrieval Shaft Comp Grout Array 045 Obstruction	2			-0	BIHJV's subcontractor, Drill Tech, encountered a concrete obstruction at the Retrieval Shaft location on December 17th, 2013 when performing survey layout of the design location for several of the comp grout holes in the 045 array. 01/08/14 - Item reviewed at CMB meeting during review of weekly Trend/Chang log. The CM reported the Contractor will be notified there is no merit for this change request. SFMTA denial letter No. 270 sent to Contractor. CLOSED; NO FURTHER ACTION		
1252-0136	0		Installation of Piping, Conduit and Casing at Fourth Street Portal	1			TBD	PCC 19 issued to provide standpipe piping, telephone and train signal conduits, and casing at Fourth Street Portal. 02/26/14 CMB agreed on Jan. 29, 2014 with forwarding the PCC to the Contractor for pricing.		
1252-0137	0		North Beach Sewer Work	1	CMB-0152	Agree to Cost	03/12/14	-0	Contractor directed to proceed with work on a Force Account basis for 'Sewer Work on Columbus and Powell St (North Beach)' in accordance with Force Account Change Order No. 010 03/12/14 CMB authorized a NTE amount of \$10,000 to start negotiations with the Contractor on the forthcoming PCC 20 for the price of the plates. Contractor's written cost for standby required to complete negotiations.	
1252-0138			Curb Ramp Work at NE Corner of 4th and Harrison Streets	1			+5,023	Contractor directed to proceed with work on a Force Account basis to install modified curb ramps and additional sidewalk flags in accordance with Force Account Change Order No. 011. 03/26/14 - CMB authorized a FACO NTE amount of \$4500., which will be reimbursed by PG&E through the form B process.		
1252-0139	115		BART - Additional Load Cells		CMB-0157	Agree to Merit Agree to Cost	05/07/14	+1,066	BIHJV: "In accordance with the SFMTA's direction, BIH is providing two new fully functional load cells (the same model as currently installed in the BART tunnels) as well as two new DTI Squirters (the same model as currently installed in the BART Tunnels). It is BIHJV understanding that the SFMTA may decide to replace load cells #M1-75A and #M2-75A currently installed in the BART existing tunnels with the instruments hereby provided by BIH-JV and that the replacement operation will occur without BIHJV technical support."	
1252-0140a			Installation of Water Pipe, Sewer, Bulb-outs, and Sidewalk Widening in North Beach				+562,247	PCC 20 includes: • Furnish and install water piping for the San Francisco Water Department (SFWD) • Furnish and install sewer catch pits, manholes, and piping for the San Francisco Public Utilities Commission (SFPUC) • Furnish and install additional sidewalk pavement (widening and bulb-outs), crosswalk ramps, curb, gutter, reinforced bus-pads, street base and pavement for the San Francisco Municipal Transportation Agency, Sustainable Streets Division (SFMTA) 05/14/14 - Item reviewed at CMB mtg. during review of weekly Trend/Change log. - Cmod 36 will be issued for \$328,860K for install of water pipe.		
1252-0140b			Installation of Water Pipe				+328,860	Cmod 36 in process for installation of Water Main only (Lump Sum \$328,860).		

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1252-0141	SB Tunnel Material Conditions					-0-	BIHJV claims to have encountered soil conditions different from those described in the GBR and Contract Documents on April 15, 2014, while excavating the Southbound (SB) tunnel. 05/14/14 - Item reviewed at CMB mtg. during review of weekly Trend/Change log. CLOSED; NO FURTHER ACTION	
1252-0142	Contract Milestone Changes					-0-	Contract Modification to modify the sequencing of tunnel construction and cross passage construction. 05/14/14 - Item reviewed at CMB mtg. during review of weekly Trend/Change log.	
1252-0143	Columbus Ave. Waterline					+5,000	BIHJV claims their subcontractor Synergy encountered an unmarked waterline on Columbus Avenue while excavating to install the new 24" waterline for PCC 20 (Trend #140b). 06/04/14 - Item reviewed at CMB mtg. during review of weekly Trend/Change log.	
1252-0144	Installation of Geophones in NB and SB Tunnels					+5,000	FA CO 13 Includes: • Installation of 1 geophone at STN 130+92 in the SB tunnel • Installation of 1 geophone at STN 130+92 in the NB tunnel • Allow the geo phones to read for an approximate 24hr period during active tunneling operations in each tunnel. • Provide data gathered by geophones to SFMTA for review 06/04/14 - Item reviewed at CMB mtg. during review of weekly Trend/Change log.	
Contract 1252 Totals						8,616,634	Total Changes and Potential Change (trends) to the contract are currently \$8,616,634 Out of Scope Changes to the Contract for Relocation of TBM (Trend 79, PCC 10) to be paid out of CPT690, funded separately. Not include in total above and being tracked separately from original Program Costs of \$1.5783B	
CONSTRUCTION TRENDS (Based on #1252 Trending Log and CMod) - SUBTOTALS:						8,616,634	The \$8,606,634 represents an UNDERRUN of allocated contingency. Current Balance = (23,658,463 - 8,616,634 = \$15,041,830. This does not include potential reimbursements from utilities.	
DESIGN TRENDS								
FD-001	084-0001	Narrowing of Platform at UMS	1	CMB-0006	Agree	08/04/10	(800,000)	[In "Current Forecast" - Sep2010 Cost Report.]
FD-002	084-0002	Redux of Station Emergency Ventilation Fans (UMS)	1	CMB-0009	Agree (Conditionally)	08/25/10	(2,000,000)	Further actions: Designer required to receive Fire/Life/Safety approval before proceeding with this change. Designer to allocate cost impacts by Station (Current figures are "place-holders.". [In "Current Forecast" - Sep2010 Cost Report.]
FD-002	085-0001	Redux of Station Emergency Ventilation Fans (CTS)	1	CMB-0009	Agree (Conditionally)	08/25/10	(500,000)	Further actions: Designer required to receive Fire/Life/Safety approval before proceeding with this change. Designer to allocate cost impacts by Station (Current figures are "place-holders.". [In "Current Forecast" - Sep2010 Cost Report.]
FD-002	086-0001	Redux of Station Emergency Ventilation Fans (MOS)	1	CMB-0009	Agree (Conditionally)	08/25/10	(500,000)	Further actions: Designer required to receive Fire/Life/Safety approval before proceeding with this change. Designer to allocate cost impacts by Station (Current figures are "place-holders.". [In "Current Forecast" - Sep2010 Cost Report.]
FD-003	085-0002	Lowering of CTS	1	To be verified	Info Only	08/25/10	+7,000,000	Presented to CMB for information/consideration.
FD-004	084-0003	UMS Structural Configuration	1	CMB-0007	Agree	08/18/10	(8,000,000)	[In "Current Forecast" - Sep2010 Cost Report.]
FD-005	084-0004	UMS Alternate Station Access/Vent Shaft @ Union Square	1	CMB-0010	Agree	12/29/10	(22,500,000)	Documentation to be filed.
FD-006	084-0005	Station Headwalls - UMS	1	CMB-0008	Agree	08/18/10	-0-	
FD-006	086-0002	Station Headwalls - MOS	1	CMB-0008	Agree	08/18/10	-0-	
FD-007		Cross-passages	1	CMB-0018	Agree	09/15/10	-0-	
FD-008		Trolley Re-route @ Columbus & Powell	1	CMB-0017	Agree	09/15/10	+2,000,000	
FD-009	082-0003	ECP to Modify Sidewalk Vault Demolition and Construction Sequence to Facilitate Construction of Joint Utilities Trench and Future UMS Station	1	CMB-0019	Agree	12/15/10	+3,000,000	

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FD-010	082-0004	Redesign Stockton Street Sanitary Sewer to conform to SFPUC Sewer Criteria that preclude placement of relocated sanitary sewer under sidewalks	1	CMB-0020	Agree	11/17/10	+2,000,000	
FD-011	082-0005	Reconfigure Routing of Water, Sewer and Gas laterals from buildings on north side of Ellis Street	1	CMB-0021	Agree	11/17/10	+500,000	
FD-012	082-0006	Recognize cost transfers from design allowances allocated to contingency to explicit line items in final design estimates	1	CMB-0022	Disagree	11/17/10	-0-	
FD-013	082-0007	Increase Extent of Sub-sidewalks Vault Secondary Closure Walls and Waterproofing	1	CMB-0023	Agree	11/17/10	+4,100,000	
FD-014	082-0008	Include OCS system for rerouting trolley buses to Fifth Street	1	CMB-0024	Agree	12/15/10	+3,100,000	
FD-015	082-0009	Subsidewalk Vault Secondary Closure Walls for Buildings at 800 Market and 838 Market	1	CMB-0025	Agree	11/17/10	+1,000,000	
FD-016	085-0003	Underpinning of Mandarin Tower	1	CMB-0011	over taken by FD-021	01/19/11	+5,000,000	Additional Information Pending.
FD-017	085-0004	CTS Ground Improvement	1	CMB-0012	over taken by FD-021	01/19/11	+10,300,000	Additional Information Pending.
FD-018	084-0006	UMS Apple Store Entrance	1	CMB-0013	Disagree	11/10/10	-0-	Additional Information Pending.
FD-019	086-0003	MOS TOD Configuration	1	CMB-0014	Agree	11/10/10	TBD	
FD-020	084-0007	UMS Emergency Stair #4 Relocation	1	CMB-0015	Agree	11/10/10	TBD	
FD-021	085-0005	CTS Lowering and Stations Reconfiguration	1	CMB-0027	Agree	01/19/11	(18,000,000.00)	Agreement with changes to project configuration only. Additional Information required related to cost and schedule impacts. No agreement on Design cost impact, Design costs directly related to this change to be tracked separately
FD-022	084-0008	Sewer Replacement along Geary & O'Farrell	1	CMB-0029	Agree	02/23/11	(134,000)	This trend has both an EPC number as well as a Construction Trend Number. See also Construction Trend No. 1251-0003
FD-023	087-0001	Emergency walkways through crossover cavern changed from outside the main tracks to between the main tracks.	1	CMB-0032	Agree	07/27/11		
FD-024	087-0002	Diamond crossover on surface segment to a tandem (universal) crossover.	1	CMB-0033	Agree	08/24/11	(350,000)	
FD-025	083-0001	Bid Option for TBM Retrieval Shaft		CMB-0034	Agree	04/13/11	(10,000,000)	Will require changes to Bid Schedule to incorporate Traffic, Utilities and Pavement Demo/Restoration as incidental costs to the Bid Option. Estimated DP1 cost impact is approx. 80-100 hrs. of engineering time.
FD-026	084,085,086	Air Replenishment System for Stations	1	CMB-0040	Agree	07/13/11	+1,245,000	Install air replenishment system at MOS, CTS and UMS to address the requirements of the SFFD Bulletin 5.07. The air replenishment system will be used to fill firefighter's self-contained breathing apparatus during firefighting operations in the three subway stations.
FD-027	082-0010	1 Stockton street (Apple Store) Secondary Closure Wall		CMB-0043	Agree	08/03/11	+500,000	1) Add secondary closure wall to supplement recently completed primary closure wall built by owner to isolate the sub-sidewalk basement of 1 Stockton Street (Apple Store). 2) Modify position of joint trench (and all associated conduits, ducts etc.) for secondary closure wall to be constructed.
FD-028	086-0004	MOS Revisions to Emergency Ventilation Requirements		CMB-0052	Agree	09/07/11	+500,000	Changes will extend the date of the 90% (pre-final) submittal by 20 working days and the 100% (final) submittal by 40 working days. CMB did not approve a time extension for 90% or 100% submittal delivery. Project Controls estimated \$321,645.
FD-029	085-0006	CTS Revisions to Emergency Ventilation Requirements		CMB-0053	Agree	09/07/11	+1,000,000	Changes will extend the date of the 90% (pre-final) submittal by 20 working days and the 100% (final) submittal by 40 working days. CMB did not approve a time extension for 90% or 100% submittal delivery. Project Controls estimated \$411,895.
FD-030	084-0009	UMS Revisions to Emergency Ventilation Requirements		CMB-0054	Agree	09/07/11	+1,000,000	Changes will extend the date of the 90% (pre-final) submittal by 20 working days and the 100% (final) submittal by 40 working days. CMB did not approve a time extension for 90% or 100% submittal delivery. Project Controls estimated 733,420.
FD-031		Accessibility Improvements at the SE corner of Union Square (UMS)						
FD-032		Union Square Entrance Reconfiguration (UMS)						
FD-033		Additional Compensation Grouting due to Tunnel Settlement Alert and Trigger Levels (All Stations)					+21,040,000	ECP dated 11/17/11. ECP being routed for approval.

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FD-034	Operational Performance and Safety Enhancement at 4th and King		CMB-0062	Agree	12/14/11	+450,000	SFMTA Operations requested that the design of the 4th & King tie-in work be expanded to include a number of improvements at the junction involving the turn-back area extending to the scissors crossover at 6th & King. SFMTA Ops confirmed that the requested changes result in an arrangement that is consistent with standard operation practices and therefore does not involve new or unacceptable risks. CS 1553 Memorandum No. 0081. Conditionally agreed upon verification/resolution of Buy America issue for the switches. 3/14/12: "Buy America" issue no longer applicable. Revised ECP element - remove H&K switch machines and replace with hydraulic/120V switch machines such as Nortrak or equal.	
FD-035	Tunnel Air Replenishment System		CMB-0071	Agree	07/11/12	+1,215,000	Design and construct a fire fighter air replenishment system for Central Subway tunnel as described in SF Fire Code 511.2, Bulletin 5.07 except as noted in the Central Subway Request for Approval of Variance for the ARS to SFFD on March 5, 2012, and subsequently approved by SFFD. Design Impact: ROM - \$215K Construction Impact: ROM - \$1M	
FD-036	Surface Segment Sewers - 4th St.		CMB-0072	Agree	07/18/12	+2,200,000	Replace current unreinforced brick crown from 1906 as it may not be able to withstand loading for construction of the CS trackway section. Reconstruct manholes between Brannan and King Streets as existing are in conflict with proposed rail. Replace service laterals and provide sleeves for future replacement. Additional potential scope option of \$1.5M-Sewer and \$2.3M-Force Main may be requested. If so, it will be Cost to SFPUC	
FD-037	Platform Display System Signs		CMB-0077	Agree (Conditionally)	08/29/12	+500,000	Modify Stations (Contracts 1253, 1254 and 1255) and Surface, Track and Systems (Contract 1256) technical specifications and drawings for the Platform Display System (PDS) to match the changes made to the PDS units being supplied under the Integrated Systems Replacement (ISR) Project, Contract No.1260. 08/29/12 - CMB agreement condition upon follow up action to evaluate procurement by CN1260	
FD-038	Elongated Sidewalk Bulb-out at Chinatown Station		CMB-0121	Agree	06/05/13	+36,000	CTS Sidewalk Bulb out (Southwest corner Stockton/Washington To bring the Central Subway Project - Chinatown Station in closer conformance with the City's General Plan, SF Planning Department in its May, 2012 GPR Letter (recommends) making design changes specifically the extension of the sidewalk bulb-out at Stockton Street to help create a "station plaza". This elongated bulbout on the southwest corner (SWC) of Stockton and Washington Streets in front of the station headhouse would also include bike racks, benches, trees and other landscape features. 06/05/13 - CSDG designer estimate cost is not a CS expense. Addl funding source will need to be established by San Francisco Planning to support the investigation study Design Impact: Estimated Construction Cost ROM \$36,200 Construction Impact: Estimated ROM 97 Hrs.: DPW Pavement/Sidewalk Design Modification Estimated ROM 60 Hrs.: CSDG bus door/mirror/tree/bike rack coordination	
FINAL DESIGN TRENDS (Based on All ECPs) - SUBTOTALS						+4,902,000	Incorporated budget increases have been absorbed by allocated and unallocated funds and the program budget to date remains \$1,578,300,000.	
OTHER TRENDS								
X51-001	082-0001	1251 Revised estimate, escalation impact and contingency.	7			+9,532,314	Cost Transfer #0033 (Base \$\$), 0033a (Allocated Contingency), 0036 (Base \$\$ Escalation , 0036a (Allocated Contingency Escalation). [Sep2010 Cost Report]	BT-0033, BT-0033-A, BT0036, BT-0036-A
X51-002	082-0002	Form B Credit for 1251 Utilities	7			(7,697,949)	Reserve and Contingencies removed as per communications with PG&E. This is consistent with the 1250 utility agreement. [Cost Transfer #0034 - Aug2010 Cost Report].	BT-0034
X52-001	083-0001	1252-(TUN) Revised estimate, escalation impact and contingency	7			(2,165,462)	Cost Transfer #0035 (Base \$\$), 0035a (Allocated Contingency), 0037 (Base \$\$ Escalation , 0037a (Allocated Contingency Escalation). [Sep2010 Cost Report]	BT-0037, BT-0037-A
X03-001	003-0001	OEWD's Pilot Training Program	7			+75,000	Workforce training pilot program in conjunction with the City/County's Office of Economic and Workforce Development (OEWD). Provides specialized training to SF residents to perform tunneling work. Central Subway financial responsibility being investigated. Requires further clarification	
X53-001	084-0001	CS 155-2 (DP2) CBP4 - Construction Budget Adjustment YOY	7	CMB-0044	Agree	07/27/11	Adjust construction budget in Section 6 of Contract No. CS 155-2 to Year of Expenditure	

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				Approval Action	Approval Date			
X53-002	Change UMS Advertise Date to April 4th, 2012						DP2 Designer's new proposed dates for Pre-Final and Final Design have pushed out Advertise Dates.	
X53-003	084-0002 CN1253 (UMS) Construction Budget Adjustment 90%					+55,720,600	CMB is currently vetting the 90% estimate of \$221,534,723 which represents a \$XX increase from the 65% base amount in 2010\$. Increase would deplete current YOY dollars and require use of unallocated contingency.	
X53-004	084-0002 Approve/Execute/Certify durations change for UMS Contract						Shortened the duration for Approve/Execute/Certify - UMS Contract from 40 to 24days to reflect an optimistic but doable duration for contractor submittals.	
X54-001	085-0001 CS 155-2 (DP2) CBP5 - Construction Budget Adjustment YOY	7	CMB-0045	Agree	07/27/11		Adjust construction budget in Section 6 of Contract No. CS 155-2 to Year of Expenditure	
X54-002	Change CTS Advertise Date to May 23rd, 2012		CMB-0061	Agree	12/28/11		DP2 Designer's new proposed dates for Pre-Final and Final Design have pushed out Advertise Dates.	
X54-003	Change CTS Advertise Date to February 8th, 2012						Change CTS Advertise Date from May 23, 2012 to February 8, 2012 (-74 working days)	
X54-005	Revisions to CTS Construction Schedule		CMB-0060	Agree	12/28/11			
X54-006	085-0002 CS 155-2 (DP2) CBP4 - Construction Budget Adjustment - allowed	7						
X55-001	086-0001 CS 155-2 (DP2) CBP6 - Construction Budget Adjustment YOY	7	CMB-0046	Agree	07/27/11		Adjust construction budget in Section 6 of Contract No. CS 155-2 to Year of Expenditure	
X55-002	Change MOS Advertise Date to June 25th, 2012						DP2 Designer's new proposed dates for Pre-Final and Final Design have pushed out Advertise Dates.	
X55-003	Change MOS Advertise Date to May 23rd, 2012						Change MOS Advertise Date from June 25, 2012 to May 23, 2012 (-22 working days)	
X55-004	Change MOS Advertise Date to Aug 20, 2012						Change MOS to August 20, 2012	
X56-001	Change STS Advertise Date to July 27th, 2012						DP2 Designer's new proposed dates for Pre-Final and Final Design have pushed out the Station's Advertise Dates. STS Advertise Date is staggered from Station's Advertise Dates.	
X56-002	STS Construction Schedule Revision for Equipment Procurement							
X56-003	Change STS Advertise Date to October 1, 2012						Change STS Advertise Date to October 1, 2012	
X40-001	028-0001 SFPUC CDD Updated Budgets	7		Authorized		+505,127	1250 SFPUC CDD Monthly Service Report Final & 1251 SFPUC CDD Estimate	BT-0172, BT-0177
X80-001	071-0001 DP1: CS 155-1 Modifications No. 2 & 3	see Prof. Serv		Authorized		+560,585	Modification No. 2: \$395,584.59, Modification No. 3: \$165,000. Individual details listed in Professional Services. See trend 1551-0002,1551-0005 - 1551-0009	BT-0170, BT-0171, BT-0173
X80-002	071-0002 DP1: CS 155-1 Modification No. 4	7		Authorized		+135,898	Modification No. 4: \$135,898 Individual details listed in Professional Services. See trends 1551-0010 - 1551-0014.	BT-0187
X80-003	029-0001 Increase City Auditor Budget	7		Authorized		+50,220	Reduce unallocated Contingency to increase City Auditor budget as authorized in Budget Authorization #51.	BR#51, BT-0181
X80-004	232-0001 Increase SFCTA Budget	7		Authorized		+20,000	Increase SFCTA budget per Budget Authorization #51 to conduct travel forecast (TEP CEQA Modeling) to satisfy PMO review and SFMTA Fleet Plan light rail vehicle.	BR #51, BT-0182
X80-005	072-0001 DP2: CS 155-2 Modification No. 1	7		Authorized		+1,010,000	Modification No. 1: \$1,010,600 Individual details listed in Professional Services. See trends 1552-0002, 1552-0003 and 1552-0005.	BT-0194, BR#53
X80-006	072-0002 DP2: CS 155-2 Exercised Options	see Prof. Serv		Authorized		+366,771	Individual details listed in Professional Services. See trends 1552-0001, 1552-0007 and 1552-0014.	BT-0023, BT-0194
X80-007	151-0001 Operations SFMTA Transit Services			Authorized		+50,000	CSP request services to support and test OCS for 30/45 trolley reroute. Authorized per Budget Revision #53	BR #53, BT-0189
X80-008	081-0001 SFMTA Safety, Training, Security & Enforcement Div PCOs	7		Authorized		+60,000	CSP request PCOs to support 1251 and 1252 construction for one year. Authorized \$60,000 per Budget Revision #45.	BR #45, BT-0190
X80-009	016-0001 SFMTA Sustainable Streets 30 and 45 re-route	7		Authorized		-0-	CSP request services to support 30/45 trolley reroute. \$162,600 was reduced from DPT staffing plan budget.	BT-0188
X80-010	073-0001 DP3: CS 155-3 Modification No. 1	7		Authorized		+152,882	Modification No. 1: \$152,882 Individual details listed in Professional Services. See trends 1553-0012 and 1553-0013.	BT-0203
X80-011	073-0002 DP3: CS 155-3 Exercised Options	see Prof. Serv		Authorized		+1,026,398	Individual details listed in Professional Services. See trends 1553-0001 - 1553-0004, 1553-0006, 1553-0009 - 1553-0011, 1553-0014. Updated from \$971,686 to include Trend 1553-0014.	BT-0203
X80-012	151-0002 OCS materials procured directly for work in reference to CN1251 CMOD#12.		CMB-0065	Agree	1/25/2012, 2/29/12	+126,149	See also Trend 1251-0023	

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CENTRAL SUBWAY PROJECT

Project Trend/Change Control Log

Item #	Change Description	Change Type	CMB No.	Change Status		Projected Cost Impact +Exposure(Benefit)	Comments	Contract Modification Number
				Approval Action	Approval Date	Actual/Forecast		
X80-013	DP3: Provide Vibration Impact Analysis and Extend PC Support Technical and CSP Quality Manager	1				+133,906	Amend #2: Vibration Impact Analysis \$38,380 Amend #3: PC Support Tech \$34,483; Quality Manager - \$61,043	TBD
X80-014	For combining the stations and track and systems into Contract 1300 (SSTS)	7					Combined all the Station and Track and Systems into one Contract. Removed the buffer float activities from the station to track and systems and overlapped work that can now be done concurrent.	
X80-015	Changing the Bid Opening date and condensing the Contract Duration for Contract 1300	7		Agree	11/14/12		Change bid opening to March 19, 2013 and reevaluated procurement durations, revised calendars for UMS Garage, revised production rates for steel. 11/14/13 CMB Agreed verbally to change @ Mtg #101	
X80-016	Change to Tunnel and CTS interface and buffer float Contract 1300 (SSTS)	7		Agree	01/23/13		Change (MPS) reducing the number of days currently in (from 550 calendar days from NTP to 450 calendar days) for the key interface between CTS and the tunnel completion. Reduced number of days will be issued as part of Add #3 of the 1300 contract. 1/23/13 CMB Agreed verbally to change @ Mtg #111.	
OTHER TRENDS (Based on Various Trends)						+59,662,439	Current Forecast reflects a net +3,537,933 unfavorable impact for all Other Trends.	
GRAND TOTALS						+73,181,073	Current Forecast reflects an estimated net +68,635,132 3 unfavorable exposure to the project to date. Incorporated budget increases have been absorbed by allocated and unallocated funds and the program budget to date remains \$1,578,300,000.	

PROFESSIONAL SERVICES TRENDS: The following trends are listed for administrative purposes. The dollar amounts are reflected in the "Other Trends" section of this log in the form of cost (budget) transfers - i.e. CCOP's. The total values indicated for each professional contract are for tracking all potential cost exposures and may or may not be approved.

Contract CS-155-1								
1551-0001	071-0001	Conform Contract Terms per Negotiations from 10/2/09 to 11/6/09	7			-0-	To be addressed in Amendment 1.	Amendment 1 Pending
1551-0002	071-0002	Project Office Delay (Adjustments for OH Rate and Team Productivity impact)	7	Authorized	07/29/11	+101,411	Amendment Signed by ED/CEO 7/29/11 COMPLETE, NO FURTHER ACTION; Amendment #2	Amendment 2 Approved
1551-0003	071-0003	Additional Construction Support for CP-1	7					
1551-0004	071-0004	Redesign Required by Barney's and PUC for CP-2	7					
1551-0005	071-0005	Archeological Monitoring 16.20.C1 (total)	7	Authorized	07/29/11	+197,173	Amendment Signed by ED/CEO 7/29/11 COMPLETE, NO FURTHER ACTION; Amendment #2	Amendment 2 Approved
1551-0006	071-0006	Eyebolts	7	Authorized	07/29/11	+50,000	Amendment Signed by ED/CEO 7/29/11 COMPLETE, NO FURTHER ACTION; Amendment #2	Amendment 2 Approved
1551-0007	071-0007	Secondary Closure Walls 800/838 Market	1	Authorized	07/29/11	+47,400	Amendment Signed by ED/CEO 7/29/11 COMPLETE, NO FURTHER ACTION; Amendment #2	Amendment 2 Approved
1551-0008	071-0008	Delete Optional Tasks - Tasks 1-14	1			-0-	Deleted Options in the amount of (\$529,952) in Amendment has been reversed through Budget Authorization #50. COMPLETE, NO FURTHER ACTION; Amendment #2	Amendment 2 Approved
1551-0009	071-0009	CTS Lowering	1	Authorized	12/08/11	+165,000	Amendment Signed by ED/CEO 12/8/11 COMPLETE, NO FURTHER ACTION; Amendment #3	Amendment 3 Approved
1551-0010	071-0010	Modify Sidewalk Vault Demo ECP-FD009	7	Authorized	12/08/11	+39,311	Amendment Signed by ED/CEO 12/8/11 COMPLETE, NO FURTHER ACTION; Amendment #4	Amendment 4 Approved
1551-0011	071-0011	Modify Stockton St. Sewer ECP-FD010	7	Authorized	12/08/11	+4,112	Amendment Signed by ED/CEO 12/8/11 COMPLETE, NO FURTHER ACTION; Amendment #4	Amendment 4 Approved
1551-0012	071-0012	Reconfigure Utilities N. Side Ellis ECP-FD011	7	Authorized	12/08/11	+2,448	Amendment Signed by ED/CEO 12/8/11 COMPLETE, NO FURTHER ACTION; Amendment #4	Amendment 4 Approved
1551-0013	071-0013	Extend SubSidewalk Closure Wall ECP-FD013	7	Authorized	12/08/11	+85,233	Amendment Signed by ED/CEO 12/8/11 COMPLETE, NO FURTHER ACTION; Amendment #4	Amendment 4 Approved
1551-0014	071-0014	Reroute OCS to Fifth St. ECP-FD014	7	Authorized	12/08/11	+4,794	Amendment Signed by ED/CEO 12/8/11 COMPLETE, NO FURTHER ACTION; Amendment #4	Amendment 4 Approved
1551-0015	071-0015	Retrieval Shaft Redesign - Sewer By Pass	7			+56,000	Awaiting documentation from Designer	
1551-0016	071-0016	Design Measures for Settlement Protection	7			+99,000	Awaiting documentation from Designer	
1551-0017	071-0017	Incorporate Headwalls MOS/UMS	1	Disagree at this time	11/01/11	+42,000	In letter dated November 1, 2011 DPM responded that until concurrence with DP2 on cost transfer or additional documentation, the requested change is denied.	

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CENTRAL SUBWAY PROJECT

Project Trend/Change Control Log

Item #	Change Description	Change Type	CMB No.	Change Status		Projected Cost Impact +Exposure(Benefit)	Comments	Contract Modification Number
				Approval Action	Approval Date	Actual/Forecast		
1551-0018	071-0018	Prepare Utility Composite	-	Disagree	11/01/11	+50,000	DPM responded that Program does not agree in letter dated November 1, 2011.	
1551-0019	071-0019	Incorporate Cross Passages	1	Disagree at this time	11/01/11	+43,000	In letter dated November 1, 2011 DPM responded that until concurrence with DP2 on cost transfer or additional documentation, the requested change is denied.	
Contract CS-155-1 Total						+986,882	Of the total cost exposure shown, Contract Modifications and Authorized Option dollars have been absorbed by DP1 allocated contingency in the amount of \$696,483 of a total budget of \$705,000. Additional potential exposure is +\$391,411. Currently, overall contract value remains unchanged in the amount of \$6,500,000.	
Contract CS-155-2								
1552-0001	072-0001	Optional Task 2.50 and Task 12.07	1	Authorized	05/06/10	+274,775	CS Letter 0473 from ED/CEO Optional Task 2.50 to support art enhancement activities NTE \$164,383 and Optional Task 12.07 to support design structures for Public Art NTE \$110,392.	
1552-0002	072-0002	Expanded Hydraulic Testing at CTS	7	Authorized	07/01/10	+26,100	Estimated cost breakdown is included in the 7/1/10 letter from CSDG and includes signed approval by SFMTA. Amendment No. 1 authorized by ED/CEO on 12/21/11. COMPLETE, NO FURTHER ACTION; Amendment #1	Amendment 1 Approved
1552-0003	072-0003	Additional Soil Borings at UMS Station - Task No. 3.10 Supplemental Investigations	7	Authorized	11/02/10	+34,500	Estimated cost breakdown is included in the 10/11/10 letter from CSDG and includes signed approval by SFMTA. Amendment No. 1 authorized by ED/CEO on 12/21/11. COMPLETE, NO FURTHER ACTION; Amendment #1	Amendment 1 Approved
1552-0004	072-0004	MOS TOD White Paper Proposal	1			+33,847	Conceptual study will assess a potential high rise building at the Moscone station headhouse. Estimated cost breakdown is included in the 2/11/2011 letter from CSDG - On Hold .	
1552-0005	072-0005	CTS - Alternate 5	7	Authorized	03/24/11	+950,000	CS Letter from DED dated 3/24/11 has agreed to a modification of \$950,000 for performing additional work. Amendment No. 1 authorized by ED/CEO on 12/21/11. COMPLETE, NO FURTHER ACTION; Amendment #1	Amendment 1 Approved
1552-0006	072-0006	Audited Overhead Rate Adjustment for Year 2010 - Request for Amendment	7			-0-	Estimated cost of \$406,320 is included in the 6/28/11 letter from CSDG. See 1552-0006 Rev. 1 for most current estimate	
1552-0007	072-0007	REVIT and CAD Support (to City Staff) Option to DP2 Contract (Optional Services Task 12.12)	1	Authorized	07/25/11	+79,200	CS Letter No. 0768 from ED/CEO dated 7/25/11 has authorized Optional Task 12.12 NTE \$79,200.	
1552-0008	072-0008	MOS Revisions to Emergency Ventilation Requirements	-	Provide further Justification	09/07/11	-0-	CMB did not approve a \$60,000 proposed increase. Document References ECP FD028, CSDG letter dated 8/8/11. DPM responded that program does not agree in letter dated 10/17/11.	
1552-0009	072-0009	CTS Revisions to Emergency Ventilation Requirements	-	Provide further Justification	09/07/11	-0-	CMB did not approve an \$80,000 proposed increase. Document References ECP FD029, CSDG letter dated 8/8/11. DPM responded that program does not agree in letter dated 10/17/11.	
1552-0010	072-0010	UMS Revisions to Emergency Ventilation Requirements	-	Provide further Justification	09/07/11	-0-	CMB did not approve a \$100,000 proposed increase. Document References ECP FD030, CSDG letter dated 8/8/11. DPM responded that program does not agree in letter dated 10/17/11.	
1552-0011	072-0011	Audited Overhead Rate Adjustment for Year 2010 - Request for Amendment - Rev. 1	7			+426,322	Estimated cost breakdown is included in the 8/17/11 letter from CSDG. This is a revision to the 6/28/11 letter and cost breakdown.	
1552-0012	072-0012	Station Air Replenishment System	-	Disagree	10/17/11	+36,240	Estimated cost breakdown is included in the 8/23/11 letter from CSDG. DPM responded that program does not agree in letter dated 10/17/11.	
1552-0013	072-0013	COR for Additional Services Related to MOS Constructability Review and Assessment of Alternatives	-			-0-	Cost charged to Task 2.70- part of base work	
1552-0014	072-0014	Proposal for Additional Work to provide Structural Engineering Support (Optional Services)	1	Authorized Optional Task 12.01.C5 only	11/04/11	+35,724	Estimated cost breakdown is included in the 9/22/11 letter from CSDG. Referenced Optional Work Tasks 12.01.C5 and 12.07.C5 - Effort re-evaluated - proposed cost to be resubmitted. CS Letter No. 1232 dated 11/4/11 from Director of Transportation has authorized Optional Task 12.01.C5 for the amount of \$12,796.	Option
Contract CS-155-2 Total						+1,896,708	Of the total cost exposure shown, Contract Modifications and Authorized Option dollars have been absorbed by DP2 allocated contingency in the amount of \$1,046,324 of a total budget of \$4,890,707. Overall contract value remains unchanged in the amount of \$39,949,959.	
Contract CS-155-3								

- 1 - Owner Directed Change in Scope
- 2 - Unforeseen Conditions
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CENTRAL SUBWAY PROJECT

Project Trend/Change Control Log

Item #	Change Description	Change Type	CMB No.	Change Status		Projected Cost Impact +Exposure(Benefit)	Comments	Contract Modification Number
				Approval Action	Approval Date	Actual/Forecast		
1553-0001	073-0001	Authorization to commence optional tasks 9.20J Technical Specifications Item J Facility SCADA	1	Authorized	08/01/11	+259,305	SFMTA letter 0933 from ED/CEO dated 8/9/11 authorizing \$738,787 in optional tasks. COMPLETE, NO FURTHER ACTION; OPTION	Option
1553-0002	073-0002	ation to commence optional tasks 12.05 Architecture	1	Authorized	08/01/11	+257,129	SFMTA letter 0933 from ED/CEO dated 8/9/11 authorizing \$738,787 in optional tasks. COMPLETE, NO FURTHER ACTION; OPTION	Option
1553-0003	073-0003	Authorization to commence optional tasks 12.13J Facility SCADA Design	1	Authorized	08/01/11	+169,553	SFMTA letter 0933 from ED/CEO dated 8/9/11 authorizing \$738,787 in optional tasks. COMPLETE, NO FURTHER ACTION; OPTION	Option
1553-0004	073-0004	Authorization to commence optional tasks 12.12E traction power cables for CAD production	1	Authorized	08/01/11	+52,800	SFMTA letter 0933 from ED/CEO dated 8/9/11 authorizing \$738,787 in optional tasks. COMPLETE, NO FURTHER ACTION; OPTION	Option
1553-0005	073-0005	Proposal to hire Wilson Irhig to support Acoustics, Noise and Vibration tasks.	7	Authorized	03/08/12	+38,380	Signed by Director of Transportation 3/8/2012. COMPLETE, NO FURTHER ACTION ; Amendment 2	Amendment 2 Approved
1553-0006	073-0006	Proposal to exercise optional task 12.07 Public Art.	1	Authorized	11/04/11	+10,285	Letter dated 9/22/11 to DOM. PMCM response pending. Priced level of Effort assumed for this task. SFMTA Letter 1213 from Director of Transportation dated 11/4/11 authorizing optional task.	
1553-0007	073-0007	Proposal to exercise optional sub-task 12.12 structural design of the OCS attachments.	7			+59,460	Letter dated 9/27/11 to DOM. NOT FOLLOWING CONTRACT REQUIREMENTS FOR PROPER NOTIFICATION OF CHANGE. PMCM has responded to clarify scope in stations and Tunnel Design. Awaiting resubmittal of request by DP3	
1553-0008	073-0008	Scope Clarification - Add Emergency and Location Signage.	7	Disagree A.12.08-Signage	11/09/11		Letter dated 10/5/11 to DOM. NOT FOLLOWING CONTRACT REQUIREMENTS FOR PROPER NOTIFICATION OF CHANGE. CS Memo No. 0882 from DOM to DP3 PM considers A.12.08 Signage as part of the work necessary to complete the trackway elements of the scope. The work in question is considered part of the base scope of services.	
1553-0009	073-0009	Proposal to exercise mechanical optional task A 12.11 to design a water line on the FBS station platform.	1	Authorized	11/04/11	+33,000	SFMTA Letter 1213 from Director of Transportation dated 11/4/11 authorizing optional task. COMPLETE, NO FURTHER ACTION; OPTION	Option
1553-0010	073-0010	Proposal to exercise Task 12.01 Surface Segment site Drainage	1	Authorized	11/04/11	+108,240	SFMTA Letter 1213 from Director of Transportation dated 11/4/11 authorizing optional task. COMPLETE, NO FURTHER ACTION; OPTION	Option
1553-0011	073-0011	Proposal to exercise Task 12.02 Sewer Relocation and Analysis Report.	1	Authorized	11/04/11	+81,374	SFMTA Letter 1213 from Director of Transportation dated 11/4/11 authorizing optional task. COMPLETE, NO FURTHER ACTION; OPTION	Option
1553-0012	073-0012	CTS - Alternate 5	7	Authorized	01/18/12	+88,855	Contract Modification No. 1 authorized by ED/CEO on 1/18/12 COMPLETE, NO FURTHER ACTION; Amendment #1	Amendment 1 Approved
1553-0013	073-0013	Proposal for Geotechnical Services	7	Authorized	01/18/12	+64,027	Letter dated October 7, 2011 to DOM. PM/CM response pending. Contract Modification No. 1 authorized by ED/CEO on 1/18/12 COMPLETE, NO FURTHER ACTION; Amendment #1	Amendment 1 Approved
1553-0014	073-0014	Authorization to commence optional tasks 12.12E traction power cables for CAD production, Optional task 2.50 Coordination with Art		Authorized	02/06/12	+54,712	SFMTA Letter 1381 from Director of Transportation dated 2/06/12 authorizing optional tasks 12.12e in the amount of \$41,280 and 2.50 for \$13,432 COMPLETE, NO FURTHER ACTION; OPTION	Option
1553-0015	073-0015	Proposal for additional services in Response to Approved (ECP) FD-034 Operation Performance and Safety Enhancements to 4th and King and 6th and King.	1			+26,026	FD-034 was updated by CMB on 3/14/12. Proposal transmitted via letter CS1553 No. 0012 dated 3/20/12 to DOM. Amendment #4 PENDING	Option
1553-0016	073-0016	Proposal for additional work - Tunnel Air Replenishment System (Exercise Optional Service)	7	Authorized	04/26/12	+173,119	SFMTA letter 1658 from Director of Transportation dated 4/26/2012 authorizing \$173,119 in optional tasks. Included in FD-035 to be presented to CMB on 6/26/12	Option
1553-0017	073-0017	Extension of PC Support Technician	1	Authorized	05/04/12	+34,483	Signed by Director of Transportation 5/14/12 COMPLETE, NO FURTHER ACTION; Amendment #3	Amendment 3 Approved
1553-0018	073-0018	Extension of CSP Quality Manager	1	Authorized	05/04/12	+61,043	Signed by Director of Transportation 5/14/12 COMPLETE, NO FURTHER ACTION; Amendment #3	Amendment 3 Approved
1553-0019	073-0019	Authorization to commence optional task 12.02 Utility Plans for design of repositioned and reconstructed manholes for the 78 inch diameter sewer on 4th St.	1	Authorized	04/09/12	+52,712	SFMTA Letter 1630 from the Director of Transportation dated 4/9/2012 authorizing optional task 12.02 in the amount of \$52,712 COMPLETE, NO FURTHER ACTION; OPTION	Option
1553-0020	073-0020	Authorization to commence optional task 12.12 civil and structural support for traction power duct banks	1	Authorized	04/09/12	+109,000	SFMTA Letter 1630 from the Director of Transportation dated 4/9/2012 authorizing optional task 12.12 in the amount of \$109,000 COMPLETE, NO FURTHER ACTION; OPTION	Option

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CENTRAL SUBWAY PROJECT

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1553-0021	073-0021	Authorization to commence optional task 12.11 design of the tunnel based Air Replenishment System including fill panels, feeder pipes, gauges, valves, fire proofing, anchors, supports, low level alarms, wiring, signage, connections to SCADA and monitoring devices, equipment placement, and impact protection	1	Authorized	04/26/12	+173,119	SFMTA Letter 1658 from the Director of Transportation dated 4/26/2012 authorizing optional task 12.11 in the amount of \$173,119 COMPLETE, NO FURTHER ACTION; OPTION	Option
1553-0022	073-0022	Increased authorization for optional task 12.12.e CAD production support	1	Authorized	04/26/12	+30,000	SFMTA Letter 1658 from the Director of Transportation dated 4/26/2012 authorizing the increase in optional task 12.12e in the amount of \$30,000 COMPLETE, NO FURTHER ACTION; OPTION	Option
1553-0023	073-0023	Authorization to commence option task 12.11 structural design support for Fire Protection and Plumbing designs	1	Authorized	05/21/12	+39,204	SFMTA Letter 1688 from the Director of Transportation dated 5/21/2012 authorizing the increase in optional task 12.11 in the amount of \$39,204 COMPLETE, NO FURTHER ACTION; OPTION	Option
1553-0024	073-0024	Authorization to commence optional task 12.12 structural design support for Traction Power and Power/Lighting designs	1	Authorized	05/21/12	+43,638	SFMTA Letter 1688 from the Director of Transportation dated 5/21/2012 authorizing the increase in optional task 12.12 in the amount of \$43,638 COMPLETE, NO FURTHER ACTION; OPTION	Option
1553-0025	073-0025	Authorization to commence optional task 12.13 structural design support for Telephone and CCTV designs	1	Authorized	05/21/12	+24,328	SFMTA Letter 1688 from the Director of Transportation dated 5/21/2012 authorizing the increase in optional task 12.13 in the amount of \$24,328 COMPLETE, NO FURTHER ACTION; OPTION	Option
1553-0026	073-0026	Authorization to commence optional task 9.20 Technical Specifications for structural design support for above designs	1	Authorized	05/21/12	+3,039	SFMTA Letter 1688 from the Director of Transportation dated 5/21/2012 authorizing the increase in optional task 9.20 in the amount of \$3,039 COMPLETE, NO FURTHER ACTION; OPTION	Option
Contract CS-155-3 Total						7,814,010.46	Of the total cost exposure shown, Contract Modifications and Authorized Option dollars have been absorbed by DP3 allocated contingency in the amount of \$1,168,995 of a total budget of \$4,598,725. Overall contract value remains unchanged in the amount of \$19,919,526.	

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