


Memorandum

CS Memorandum No. 1301

To: Distribution
From: Susan MacKenzie, Document Control Manager
Date: December 4, 2012
Reference: Project No. M544.1, Contract No. CS-149
Task No. 1-8.02, Change Control
Subject: Configuration Management Board Meeting No. 101



Attached please find minutes for Configuration Management Board Meeting No. 101 held on November 14, 2012.

Attachments: CMB Meeting No. 101 Rev. 0 Minutes with attachments

Cc: David Kuehn, STV (w/attachments) david.kuehn@stvinc.com
Brad Lebovitz, STV (w/attachments) bradley.lebovitz@stvinc.com
Shahnam Farhangi, SFMTA (w/attachments)
Roger Nguyen, SFMTA (w/attachments)
Arthur Wong, SFMTA (w/attachments)
Jane Wang, SFMTA (w/attachments)
Quon Chin, CSP (w/attachments)
Carlos Campillo, CSP (w/attachments)
Chuck Morganson, HNTB/B&C (w/attachments)
Aileen Read, CSDG (w/attachments)
CS File No. M544.1.5.0890

Distribution:

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Mark Benson, CSP
Mark Latch, CSP
Eric Stassevitch, CSP
Beverly Ward, CSP
Sarah Wilson, CSP
Matt Hembd, CSP

CMB Meeting Minutes #101

DATE: November 15, 2012

MEETING DATE: **November 14, 2012**

LOCATION: 821 Howard St, Main Conference Room

TIME: 3:00 PM

ATTENDEES: J Funghi (JF), A. Hoe (AH), J. Park (JP), Richard Redmond (RR), R. Edwards (RE), M. Latch (ML), M. Benson (MB), E. Stassevitch (ES), B. Ward (BW), S. Wilson (SW), M. Hembd (MH), L. Zurinaga (LZ), M. Lee (ML)

COPIES TO: Attendees: S. Farhangi (SF), A. Wong (AW), R. Nguyen (RN), Q. Chin (QC), C. Campillo (CC), J. Wang (JW), C. Morganson (CM), A. Read (AR), B. Lebovitz (BL), D. Kuehn (DK), File No. M544.1.5.0890

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

SUBJECT: Configuration Management Board Meeting # 101– Rev. No. 0

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

ITEM #	DISCUSSION	ACTION BY DUE DATE
4- 11/07/12	1252 - Sarah Wilson presented Evaluation of Merit for COR 009 – MOS – Live Utilities: PG&E, AT&T, and SFWD 8” Water Line extra Kill hole location. The CMB requires the Evaluation of Merit be rewritten to clearly indicate that the COR has No Merit, and be brought back to the CMB for approval. <i>11/14 Status: The RE presented a revised COR; however the CMB felt it was not rewritten in the manner in which was discussed and agreed at last week’s meeting. The narrative will be rewritten to clearly state the COR has no merit and SFMTA finds that some justification in labor costs associated with supporting the utility agencies. CLOSED</i>	
5- 11/07/12	1252 - Sarah Wilson presented Evaluation of Merit of, COR 23 – MOS Brick Wall #2 - for removal, hauling and disposal of a second existing brick wall discovered at the location of the north headwall for Moscone Station. The CMB suggested the rationale write up for the COR merit evaluation be revised to provide a better description and justification for the change and be brought back to the CMB for approval. <i>11/14 Status: A revised COR was presented expanding the justification for the change, however the CMB requested additional revisions to the evaluation emphasizing the partial merit for the COR is recognized due to the need for the Contractor to use additional resources and different method of excavation. The COR will be brought back to the CMB for approval.</i>	S. Wilson 11/21/12
3- 10/03/12	1252 - Sarah Wilson presented PCC 03, COR 056 – Traffic Detour Signage Cost a follow up action to obtain a price quote from DPT to do the work as a price comparison to BIH’s quote. 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 when traffic is restored, observe the traffic issue to see if Central Subway detour actually is the cause of the traffic issue. CLOSED	

ITEM #	DISCUSSION	ACTION BY DUE DATE
1	1252 - Sarah Wilson presented Evaluation of Merit of, COR 17 – MOS - Standby Time at south headwall due to Live Traffic Signal lines. Three live traffic signal lines were discovered which ran lengthwise through the headwall construction (not shown on dwg UD-403). The Contractor was unable to perform utility demolition and guidewall installation work as planned and is seeking compensation for standby by time while a resolution to relocate the traffic signal was received from SFMTA. RE is recommending rejecting this COR. Justification for rejection of merit is due to other work the Contractor could have performed while waiting for a response to RFI #110 – Proposal to Permanently Reroute Traffic Lines. A letter will be sent to the Contractor rejecting the COR's merit.	
2-	1252 - Sarah Wilson presented Evaluation of Merit of, COR 18 – MOS South Headwall re-design previously presented to the CMB in August (mtg #93). The Contractor contends that end stops are not required at the end of the return wall depicted on contract drawing (ES-421 Rev 0). RE is recommending a possible compensation value of \$135K. Based on the information presented the CMB found some merit for labor and material cost but were unclear from the COR, what element of work actually constituted the change. The RE is to proceed with a scoping meeting with a special emphasis on obtaining description of work as bid by Contractor so that the change can be better defined and quantified.	S. Wilson 11/21/12
3-	1252 - Sarah Wilson presented Evaluation of Merit of, COR 33 Ret Shaft - 20" Water Line Conflict – Contract drawings depict 20" water line being installed further east to the Muni (MRY) electrical duct bank instead of to the side as depicted on the contractor drawings to be installed to the side. Due to the proximity of MRY duck bank the Contractor must excavate and shore a larger hole in order to demolish the concrete around the duct bank to allow for 18" for welding all around the pipe. Based on the information presented the CMB found some merit for additional labor and material costs but were unable to clearly establish what element of work constituted the change as presented in the COR. RE will proceed with scoping the work to better define and quantify the change.	S. Wilson 11/21/12
4-	A. Ayres presented a change in the Schedule overall duration of the CN1300 Critical Path. Changes made to work calendars for the UMS station garage to include work during the moratorium, removed the garage work from the critical path. The NTP date has moved from May 1 to May 15 (Addendum 1). UMS pile installation changed from 115 – 100 days. Substantial completion has gone from 1736 calendar days to 1700 calendar days. These changes in the overall UMS schedule duration has resulted in an additional 15 working days of Muni float for a total of 83 working days.	

ACTION ITEMS

ITEM #	MTG DATE	MTG ACTION DATE	DESCRIPTION	BIC	DUE DATE	STATUS
5	08/08/12	08/29/12	1252 – PCC 1252-02 UMS Headwalls	M. Benson	10/10/12	Open
3	10/03/12	10/03/12	1252 – PCC 1252-03 Traffic Detour Signage	M. Benson	11/07/12	CLOSED
1	11/07/12	11/07/12	1300 – WP 1254 – SF Planning Request	R. Edwards	11/28/12	Open
4	11/07/12	11/14/12	1252 – COR 009 – Live Utilities @ MOS	S. Wilson		CLOSED
5	11/07/12	11/14/12	1252 – COR 018 – Brick Wall @ MOS	S. Wilson	11/21/12	Open
3	11/14/12	11/14/12	1252 – COR 33 – Ret Shaft 20" Water Line	S. Wilson	11/21/12	Open

Meeting adjourned at 5:25pm

These meeting minutes have been prepared by B. Ward and reviewed by E. Stassevitch, and are the preparer's interpretation of 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: BW ES [initials of preparer & reviewer] Date: 2/16/12 [Date review completed]

Meeting Agenda

Project No. M544.1, Contract No. CS-149
Program/Construction Management
Configuration Management Board (CMB) Meeting No. 101
November 14, 2012
3:00pm – 5:00pm
 Central Subway Project Office
 821 Howard St. 2nd Floor
 Main Conference Room

Attendees:

Mark Benson	Albert Hoe	Matt Lee	Beverly Ward
Ross Edwards	Jim Kelly	Roger Nguyen	Arthur Wong
Shahnam Farhangi	David Kuehn	Joon Park	Luis Zurinaga
John Funghi	Mark Latch	Richard Redmond	
John Haley	Brad Lebovitz	Eric Stassevitch	

1. **1250** – Nothing to Report
2. **1251** – Nothing to Report
3. **1252** – Trend No. 07, COR 009 - MOS - Live Utilities: PGE, AT&T, and SFWD 8" Water Line extra kill hole location – *Revision for Merit*
 - Trend No. 18, COR 023 - MOS - Brick Wall #2 discovered @ north headwall – *Revision for Merit*
 - Trend No. 13, COR 017 - MOS - Standby Time @ south headwall due to live TS lines – *Merit*
 - Trend No. 44, COR 033 - Ret Shaft - 20" Water Line Conflict - *Merit*
 - Trend No. 29, COR 018 - MOS - South Headwall re-design – *Merit*
 - PCC 03, COR 056 – Traffic Detour Signage Cost - *Review*
4. **1253 (UMS)** – Nothing to Report
5. **1254 (CTS)** – Nothing to Report
6. **1255 (MOS)** – Nothing to Report
7. **1256 (STS)** – Nothing to Report
8. **Trend/Change Log** –
9. **Other Business** –

Meeting Attendance Sheet

Project No. M544.1, Contract No. 149
Program/Construction Management
Configuration Management Board Meeting No. 101
November 14, 2012
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.				
Benson, Mark	CSP	(415) 701-4295	Mark.Benson@sfmta.com	<i>MCB</i>
Dombrowski, Charles	Hill/PCC	(415) 701-5272	Charles.Dombrowski@sfmta.com	
Edwards, Ross	CSP	(415) 701-5296	Ross.Edwards@sfmta.com	<i>RE</i>
Farhangi, Shahnam	SFMTA	(415) 554-0721	Shahnam.Farhangi@sfmta.com	
Funghi, John	SFMTA	(415) 701-4299	John.Funghi@sfmta.com	<i>JS</i>
Haley, John	SFMTA		John.Haley@sfmta.com	
Hoe, Albert	SFMTA	(415) 701-4289	Albert.Hoe@sfmta.com	<i>AH</i>
Kelly, Jim	SFMTA		Jim.Kelly@sfmta.com	
Kuehn, David	STV/PMOC	(510) 464-8053	David.kuehn@stvinc.com	
Latch, Mark	CSP	(415) 701-5294	Mark.Latch@sfmta.com	<i>WDL</i>
Lebovitz, Brad	STV/PMOC	(510) 464-8052	Bradley.lebovitz@stvinc.com	
Lee, Matt	SFCTA	(415) 522-4813	matt@sfcta.org	<i>ML</i>

central subway

NAME	AFFILIATION	PHONE	E-MAIL (for minutes)	INITIALS
Nguyen, Roger	SFMTA	(415) 701-4312	Roger.Nguyen@sfmta.com	
Park, Joon	SFMTA	(415) 701-4742	Joon.Park@sfmta.com	<i>JP</i>
Redmond, Richard	CSP	(415) 701-4288	Richard.Redmond@sfmta.com	<i>RR</i>
Stassevitch, Eric	CSP	(415) 701-4426	Eric.Stassevitch@sfmta.com	<i>ES</i>
Ward, Beverly	CSP	(415) 701-5291	Beverly.Ward@sfmta.com	<i>BLW</i>
Wong, Arthur	SFMTA	(415) 701-4305	Arthur.Wong@sfmta.com	
Zurinaga, Luis	SFCTA	(415) 716-6956	Luis.zurinaga@sfcta.org	<i>LZ</i>
<i>Hembel, Matt</i>	<i>SFMTA</i>	<i>415-243-0949</i>	<i>matthew.hembel@sfmta.com</i>	<i>MH</i>
<i>Wilson, Sarah</i>	<i>CSP</i>	<i>415.312.9167</i>	<i>sarah.wilson@sfmta.com</i>	<i>SHW</i>

SFMTA Contract No. 1252

Contractor: Barnard Impregilo Healy JV (BIH)

EVALUATION OF MERIT

COR 009

Recommendation: Approve Merit for costs of supporting utility agencies during utility abandonment. Disapprove Merit for all other costs and impacts associated with COR 009. Standby to equipment, potholing, cleanup after the water line break and other costs described in COR 009 should not be considered for compensation.

Facts: In order for the completion of the utility demolition work to take place within the work area at the Moscone North and South headwalls the utilities shown for PG&E and MCI/Verizon were required to be abandoned as indicated in the contract drawings (see backup). It was discovered during the course of the work that these utilities were in fact not abandoned thus utility demolition work was prevented from being completed.

There was also a live 8" water line crossing the Moscone South headwall, which was shown to be either live or abandoned depending on the contract drawing sheet. The water line needed to be cut and capped prior to further excavation.

See attached drawing for location of utilities in question. A description and summary of the events surrounding the utilities is documented on the attached backup sheet.

On June 18, 2012 RFI 103 was written to identify the issues surrounding the utilities in question. The SFMTA responded by informing the contractor of the status of the utilities and reminded the contractor of his responsibility to communicate with the appropriate utility agencies to verify location and status of the utilities in question.

Rationale for COR: SPM planned their work based on the understanding that the utilities would be abandoned and thus they are claiming that additional costs were incurred due to the discovery of live utilities.

Justification: SFMTA agrees that work for supporting utility agencies during utility abandonment is not shown in the contract documents and the Contractor is entitled to additional compensation. SFMTA cannot approve of the costs for standby to equipment, potholing, cleanup after the water line break or other costs for the following reason.

The excavation permit requirements, contract specification 02.30.00 and 02.41.00 require BIH and SPM 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. The cost for the excavating exploratory holes is incidental to the work. The relevant specification sections are listed as backup on the attached sheets.

BIH/SPM proceeded with the work activities without potholing to identify any potential conflicts and did not confirm if the utilities were abandoned; therefore BIH/SPM did not act in accordance with the contract and permit requirements and should be compensated only for supporting utility agencies during utility abandonment.

SFMTA Contract No. 1252

Contractor:

Barnard Impregilo Healy JV (BIH)

By: _____ Date _____
Sarah Wilson
Resident Engineer

_____ Date _____
Configuration Management Board
Approval

SFMTA Contract No. 1252

Contractor: Barnard Impregilo Healy JV (BIH)

COR 009 Merit Evaluation Backup

Utility Description and Events

1. SFWD low pressure water live utility

An 8 inch low pressure water main was thought by BIH/SPM to have been capped and abandoned prior to utility demolition. The following highlights the events that occurred and indicate the additional cost SPM is requesting.

- SPM commenced utility demolition activities by using an excavator on 6/12/12 and hit the water main which caused additional clean-up work.
- SPM assisted the SFWD in excavating kill holes as required by contract drawing WD-001 Rev.0 from 6/18/12 to 6/21/12 so the SFWD could install a cap on the live water main. Three kill holes were ultimately required. SPM was unsuccessful in the first two attempts at establishing a kill hole location and is seeking reimbursement for the excavation of the final kill hole which was installed on 6/21/12.

2. PG&E live utilities

A live 6" gas main and live electrical lines were discovered after the commencement of utility demolition activities. Due to the fact that SPM was unaware of the locations of the utilities prior to excavation SPM claims that they were prevented from performing utility demolition. The following highlights the events that occurred and indicate the additional cost SPM is requesting:

- The 6" gas main was located in close proximity and parallel with the southern edge of the proposed launch box wall which allegedly prohibited SPM from continuing with demolition activities. Contract drawing UT-403 Rev.0 did show that the 6" gas main was live and existing south of the location where it was encountered.
- PG&E notified SPM crews the week of June 25, 2012 that the south Moscone headwall location contained live electrical which completely halted all utility demolition activities until the live PG&E electrical was de-energized on 06/27/12.

3. MCI/Verizon live utilities

MCI/Verizon utilities were found to be live inside the AT&T duct bank which traveled through the south Moscone headwall at CTL station 156+25 to 156+50 during the week of June 12, 2012. The presence of these live utilities prohibited SPM from performing utility demolition activities. The MCI/Verizon utilities were de-energized on 6/27/12. SPM assisted MCI/Verizon's contractor by removing steel plates and providing access to the duct banks.

SFMTA Contract No. 1252

Contractor:

Barnard Impregilo Healy JV (BIH)

Applicable Specification Sections:

1. Subsurface Investigation, Section 02 30 00:

- Articles 1.04A.1 and 2:
Contractor to submit a Potholing Plan for review, and update Composite Plan of existing utilities from potholing information.
- Article 3.01 A:
Fourteen working days prior to starting any demolition or excavation work within the block under construction, the contractor shall excavate exploratory holes as incidental work in advance of the work to determine actual available horizontal and vertical clearances.
- Article 3.01 C:
The contractor will dig exploratory holes by hand or by other means and methods, which ensure no damage to existing underground facilities.
- Article 3.01D:
Contractor to provide photos of utilities encountered in exploratory hole, and not cover utilities until Engineer has accepted the record.

2. Demolition, 02 41 00:

- Article 3.05 A:
Exploratory hole excavation shall be done by vacuum type method, and not heavy excavation equipment.
- Article 3.07A:
Verify actual filed locations, depths, etc.
- Article 3.07A.2:
Notify Engineer of inconsistencies with Contract Drawings.
- Article 3.07A.3:
Where existing abandoned underground utilities are encountered and are in conflict with Contract work, notify the Engineer, confirm abandonment, and then remove these utilities as needed.
- Article 3.07 A.6:
Maintain and protect existing remaining utilities passing through the work.

3. Selective Demolition, Section 02 41 13:

- Article 3.01A: Verify that utilities have been disconnected and capped.

SFMTA Contract No. 1252

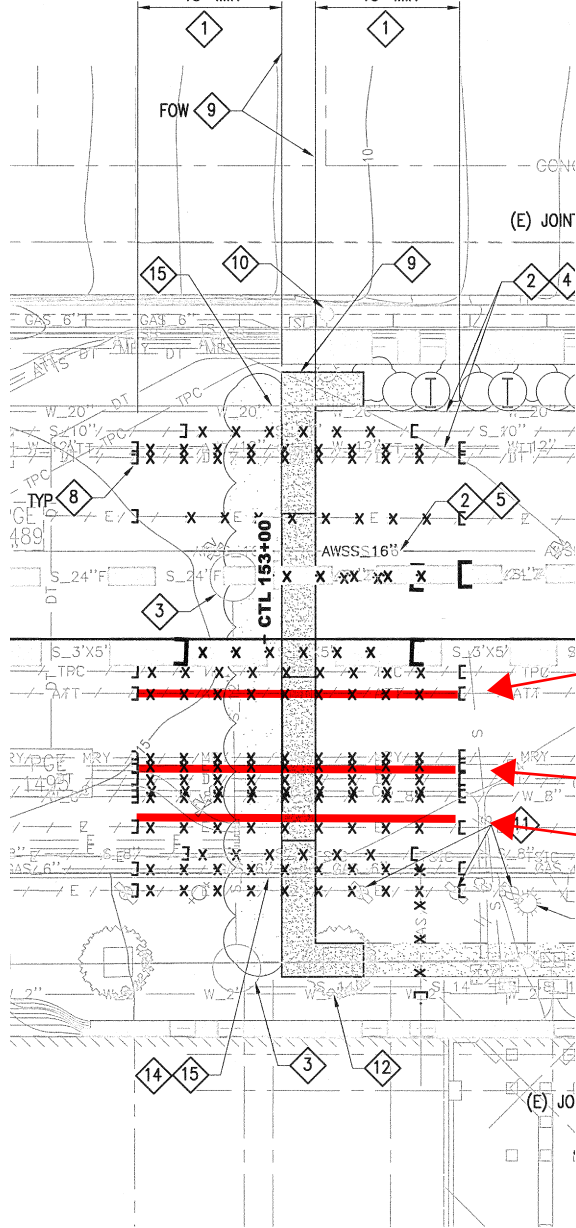
Contractor: Barnard Impregilo Healy JV (BIH)

4. Water Utility Distribution Piping, Section 33 11 00: Contains requirements for working with Agency and dealing with water lines.
5. SFDPW Street Excavation Permit Requirement 8:

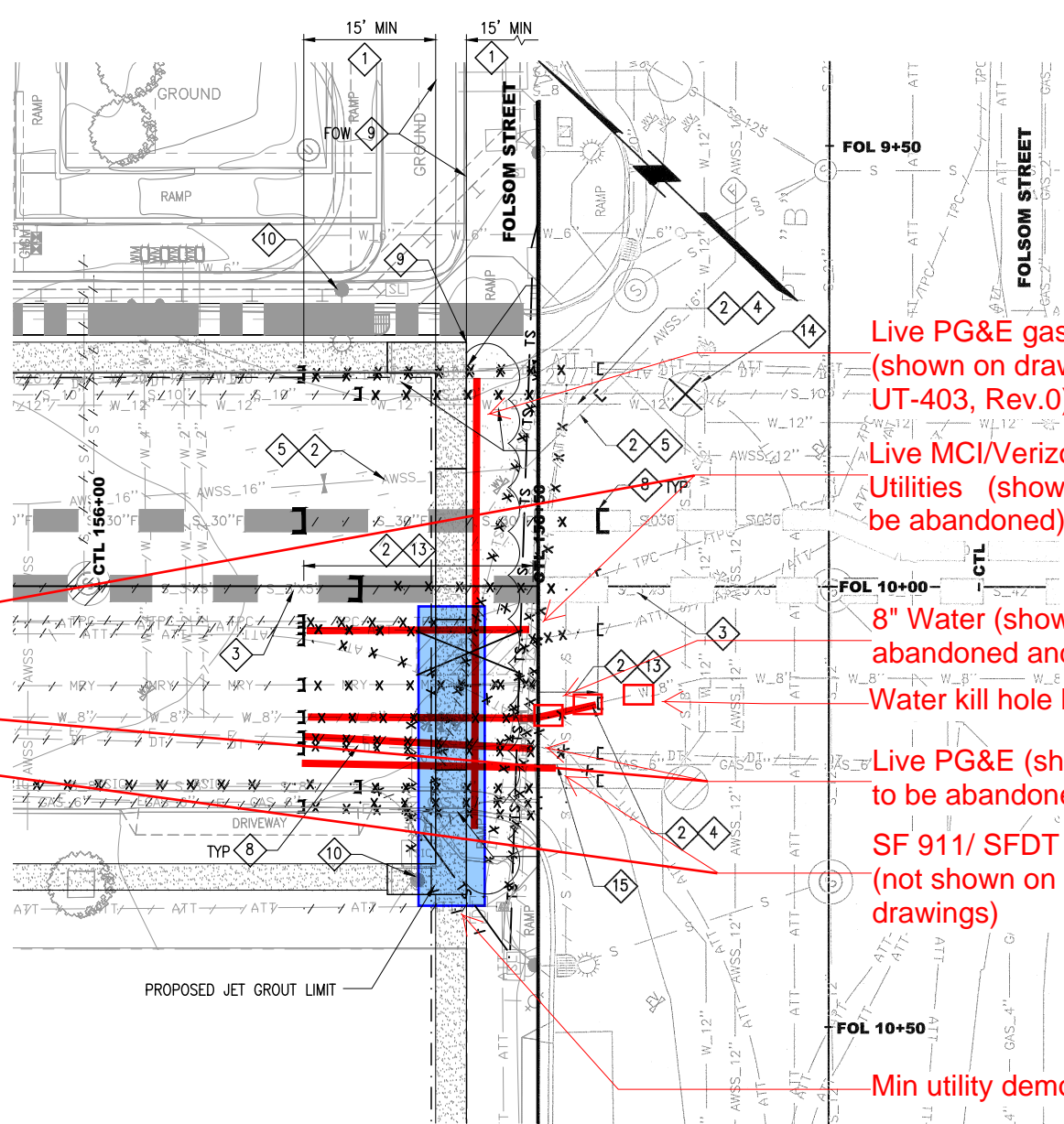
The permittee shall verify the locations of any City or public service utility company facilities that may be affected by the work authorized by this permit and shall assume any responsibility for damage to such facilities. The permittee shall make satisfactory arrangements and payments for any necessary temporary relocation for City or public utility company facilities.

Relevant contract drawings:

WD-402 Rev.0, WD-403 Rev.0, WD-404 Rev.0, UT-402 Rev. 0, UT-403 Rev. 0, UT-404 Rev. 0, UD-402 Rev. 0, UD-403 Rev. 1 and UD-404 Rev. 0.



MOS North



MOS South

Live PG&E gas
(shown on drawing
UT-403, Rev.0)

Live MCI/Verizon
Utilities (shown to
be abandoned)

8" Water (shown to be
abandoned and live)

Water kill hole locations

Live PG&E (shown
to be abandoned)

SF 911/ SFDT Line
(not shown on
drawings)

Min utility demo limits

SFMTA Contract No. 1252

Contractor: Barnard Impregilo Healy JV (BIH)

EVALUATION OF MERIT

COR 023

Recommendation: Accept justification of Merit for COR 023 for additional costs. Additional costs for removal, hauling and disposal of an existing brick wall discovered at the location of the north headwall for Moscone Station shall be considered for compensation.

Facts: BIH's subcontractor, Synergy Project Management (SPM), uncovered a buried brick wall, beneath the west curb at the location of the north headwall for Moscone Station, not shown in the contract documents, but in the vicinity of a buried brick wall that was shown on the contract drawings. The Contractor submitted RFI #114 on 7/10/12 with notification of the discovery of the 18-24" thick brick wall of unknown depth.

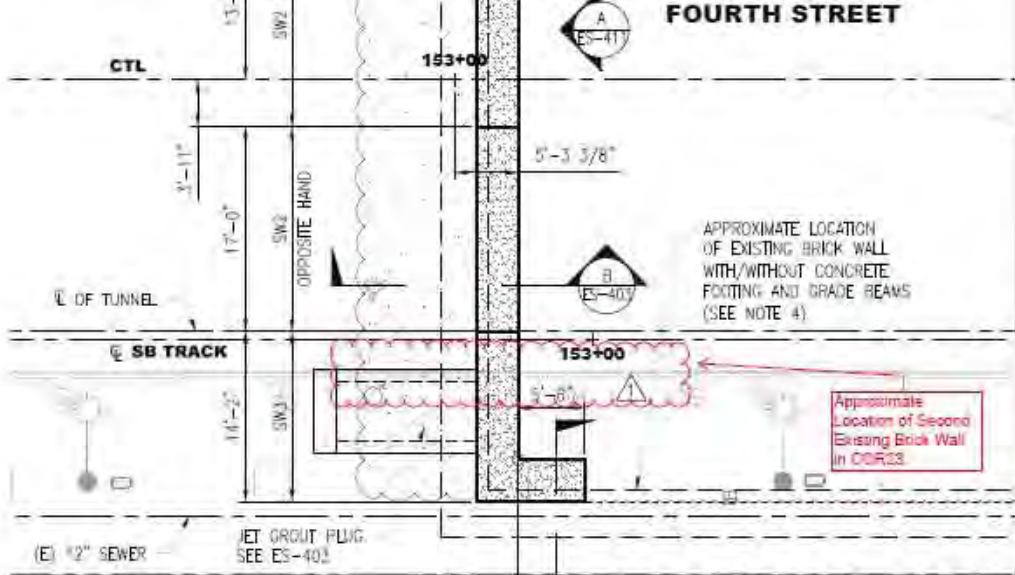
Rationale for COR: Additional costs were incurred by the Contractor for differing site conditions involving removal of a buried brick wall not shown in the contract documents, that interfered with construction of the north headwall for Moscone Station.

Justification: The contract documents do not show the existing buried wall at the location of the north headwall for Moscone Station. Removal of the buried wall was needed prior to installation of the headwall and required additional resources to demolish. Furthermore the brick wall could not be excavated below the limits of the guidewall with the equipment originally anticipated. The demolition of the wall required use of an excavator below the limits of the guide walls where slurry wall excavation equipment would normally have been used. Due to the fact that the existence of the buried wall was not anticipated and because additional resources and different methods of excavation were required the additional costs for demolition of the wall should be compensable.

By: _____ Date _____
Sarah Wilson
Resident Engineer

_____ Date _____
Configuration Management Board
Approval

FOURTH STREET



APN 3733-108

APN 3733-109

NORTH HEAD WALL

CTL 153+05.28
31'-7" RIGHT



Estimate Summary

Scope/Background:

General Detour Signage- Install General detour signage to divert southbound traffic away from the intersection of Ellis and Powell Streets

- 27 New temporary Signs
- 9 Existing Signs to remain in place
- 11 New Permanent Signs to be installed
- 7 Existing Signs to be removed

Stakeholders: SFMTA

Date of occurrence: 10/8/12

List of attached documents:

Table of Signs
New Traffic Detour Plan

Estimate Prepared By: Al Herce

Estimate Checked By: CJ Dombrowski

Sign	Legend	Size (W)	Size (H)	Area (SqFt)	Cost/SF	No Signs	Cost/Sign
A	Closed	48	42	14.00	\$ 10.67	2	\$ 298.76
B	Closed	48	42	14.00	\$ 10.67	2	\$ 298.76
101	S 101	30	24	5.00	\$ 10.67	22	\$ 1,173.70
80	E80	30	30	6.25	\$ 10.67	19	\$ 1,267.06
DR	Det Rt	48	18	6.00	\$ 10.67	8	\$ 512.16
DL	Det Lt	48	18	6.00	\$ 10.67	7	\$ 448.14
DV	Det Ver	48	18	6.00	\$ 10.67	17	\$ 1,088.34
G1	S 101 Ver	36	24	6.00	\$ 14.00	1	\$ 84.00
G2	S 101 Rt	36	24	6.00	\$ 14.00	1	\$ 84.00
G3	S 101 Lt	36	24	6.00	\$ 14.00	1	\$ 84.00
G4	80 Bay Br Ver	36	36	9.00	\$ 14.00	1	\$ 126.00
G5	80 Bay Br Left Lanes	30	48	10.00	\$ 14.00	1	\$ 140.00
G6	80/101 Rt	36	36	9.00	\$ 14.00	1	\$ 126.00
G7	80/101 Lt	36	36	9.00	\$ 14.00	1	\$ 126.00
G8	80 Bay Br/S 101 Ver	36	54	13.50	\$ 14.00	1	\$ 189.00
G9	80 Bay Br/S 101 Rt	36	54	13.50	\$ 14.00	1	\$ 189.00
G10	80 Bay Br/S 101 Lt	36	54	13.50	\$ 14.00	1	\$ 189.00
G11	80/101 Left Lanes	10	30	10.00	\$ 14.00	1	\$ 140.00

SIGN PANELS: 88 \$ 6,563.92

Labor and Materials per location (hardware to affix to existing poles) \$ 200.00

Sign Cost \$ 10.67 per sq ft Orange
 \$ 14.00 per sq ft Color

INSTALLATIONS/REMOVALS		EXT
Cost/Location (install):	\$120.00	\$ 4,560.00
No Installations:	38	
Cost/Location (remove):	\$ 50.00	\$ 400.00
No Removals:	8	
INSTALLATION/REMOVALS:		\$ 4,960.00

FINAL REMOVAL	
Cost/Location (remove):	\$ 50.00 \$ 1,800.00
No Removals:	36
INSTALLATION/REMOVALS: \$ 1,800.00	

TOTAL PROJECT

Sign Panels: \$ 6,563.92 (Sign Materials Cost)
 Installation: \$ 4,960.00 (Hardware/Labor Cost)
 Removal: \$ 1,800.00 (Final Removal Cost)

TOTAL: \$ 13,323.92

COR 056

No.	Activity Name	Days (C)	Days (EE)	Contractor (C)	Engineer's Estimate (EE)	Delta (EE-C)	Summary of Delta	Negotiation Position
Labor	1		4.75	\$ 4,200.00	\$ 4,068.96	\$ (131.04)	Labor costs for contractor include 15% for OH&P	
	2		1	\$ 300.00	\$ 428.31	\$ 128.31		
	3		2.25	\$ 3,000.00	\$ 1,927.40	\$ (1,072.60)		
	4		0	\$ -	\$ -	\$ -		
	5		0	\$ -	\$ -	\$ -		
	6		0	\$ -	\$ -	\$ -		
	7		0	\$ -	\$ -	\$ -		
	8		0	\$ -	\$ -	\$ -		
	9		0	\$ -	\$ -	\$ -		
Equipment	1		4.75	\$ -	\$ -	\$ -		
	2		1	\$ -	\$ -	\$ -		
	3		2.25	\$ -	\$ -	\$ -		
	4		0	\$ -	\$ -	\$ -		
	5		0	\$ -	\$ -	\$ -		
	6		0	\$ -	\$ -	\$ -		
	7		0	\$ -	\$ -	\$ -		
	8		0	\$ -	\$ -	\$ -		
	9		0	\$ -	\$ -	\$ -		
				Material	\$ 12,975.52	\$ 7,121.86	\$ (5,853.66)	Material cost difference is actual cost quote per sign vs. the estimated \$10.67/s.f. for all signs.
				Markup LM&E - 15%	\$ 300.00	\$ 2,031.98	\$ 1,731.98	
				2nd Tier Subs	\$ -	\$ -		
				Markup - 5%	\$ -	\$ -		
				Sub. Bond/Insurance 0.00%	\$ -	\$ -		
				Prime Markup - 5%	\$ 1,038.78	\$ 778.93		
				Prime Bond/Insurance 1.68%	\$ 366.48	\$ 274.80		
				Total	\$ 22,180.77	\$ 16,632.23	\$ (5,548.54)	Difference in cost is material.

No.	Activity	Days	Hourly rates:								Labor totals									Equipment Totals
			Laborer (G1) \$ 53.54	Labor Resource \$ 0.00	Labor Resource \$ 0.00	Labor Resource \$ 0.00	Labor Resource \$ 0.00	Labor Resource \$ 0.00	Labor Resource \$ 0.00	Labor Resource \$ 0.00		Equipment \$ 0.00	Equipment \$ 0.00	Equipment \$ 0.00	Equipment \$ 0.00	Equipment \$ 0.00	Equipment \$ 0.00	Equipment \$ 0.00	Equipment \$ 0.00	
1	Install Signage	4.75	2							\$ 4,068.96										\$ -
2	Remove Temporary Signage	1	1							\$ 428.31										\$ -
3	Final Signage Removal	2.25	2							\$ 1,927.40										\$ -
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				
13	Total									\$ 6,424.67										\$ -

Labor	\$	6,424.67
Material	\$	7,121.86
Equipment	\$	-
2nd Tier Sub	\$	-
<hr/>		
Markup on 2nd Tier Sub - 5%	\$	-
1st Tier Sub OH&P - 15%	\$	2,031.98
1st Tier Sub Bond/Insurance - 0.00%	\$	\$0.00
<hr/>		
Prime - Markup - 5%	\$	778.93
Prime - Bond/Insurance - 1.68%	\$	\$274.80
Total Amount	\$	16,632.23

Assumptions:

Shift Duration: 8hrs

Estimated By: Al Herce

11/14/2012

Checked By: CJ Dombrowski

11/14/2012



Municipal Transportation Agency



821 Howard Street
San Francisco, Ca 94103
415 701 5262 Phone
415 701 5222 Fax

Material	Qty.	Unit	Unit Price	Extension
Sign A - Closed	28	S.F.	\$ 10.67	\$ 298.76
Sign B - Closed	28	S.F.	\$ 10.67	\$ 298.76
Sign 101 - S 101	110	S.F.	\$ 10.67	\$ 1,173.70
Sign 80 - E 80	118.8	S.F.	\$ 10.67	\$ 1,267.06
Sign DR - Det Rt	48	S.F.	\$ 10.67	\$ 512.16
Sign DL - Det Lt	42	S.F.	\$ 10.67	\$ 448.14
Sign DV - Det Ver	102	S.F.	\$ 10.67	\$ 1,088.34
Sign G1	6	S.F.	\$ 14.00	\$ 84.00
Sign G2	6	S.F.	\$ 14.00	\$ 84.00
Sign G3	6	S.F.	\$ 14.00	\$ 84.00
Sign G4	9	S.F.	\$ 14.00	\$ 126.00
Sign G5	10	S.F.	\$ 14.00	\$ 140.00
Sign G6	9	S.F.	\$ 14.00	\$ 126.00
Sign G7	9	S.F.	\$ 14.00	\$ 126.00
Sign G8	13.5	S.F.	\$ 14.00	\$ 189.00
Sign G9	13.5	S.F.	\$ 14.00	\$ 189.00
Sign G10	13.5	S.F.	\$ 14.00	\$ 189.00
Sign G11	10	S.F.	\$ 14.00	\$ 140.00
			Sales Tax 8.5%	\$ 557.93
Total				\$ 7,121.86

2nd Tier Sub Quote

\$ -

Prevailing Labor Rates - SF

<http://www.dir.ca.gov>

		Social Security	Medicare	FUTA	SUTA	SF Pay	WC	Vacation/Holiday	Other Fringes	
		6.20%	1.45%	0.60%	6.20%	1.50%	12.00%			Fully Burdened
Labor Resource										0
Carpenter	\$ 38.50	\$ 2.64	\$ 0.62	\$ 0.26	\$ 2.64	\$ 0.64	\$ 5.11	\$ 4.05	\$ 21.77	\$ 76.21
Cement Mason	\$ 28.65	\$ 2.09	\$ 0.49	\$ 0.20	\$ 2.09	\$ 0.51	\$ 4.05	\$ 5.14	\$ 16.82	\$ 60.05
Electrician (Inside Wireman)	\$ 54.87	\$ 3.72	\$ 0.87	\$ 0.36	\$ 3.72	\$ 0.90	\$ 7.20	\$ 1.64	\$ 23.95	\$ 97.23
Flag Person	\$ 26.89	\$ 1.82	\$ 0.43	\$ 0.18	\$ 1.82	\$ 0.44	\$ 3.52	\$ 2.48	\$ 14.62	\$ 52.20
Iron Worker	\$ 33.00	\$ 2.29	\$ 0.54	\$ 0.22	\$ 2.29	\$ 0.55	\$ 4.43	\$ 3.92	\$ 21.37	\$ 68.60
Laborer (G1)	\$ 26.89	\$ 1.82	\$ 0.43	\$ 0.18	\$ 1.82	\$ 0.44	\$ 3.52	\$ 2.48	\$ 15.96	\$ 53.54
Laborer (G2)	\$ 26.99	\$ 1.83	\$ 0.43	\$ 0.18	\$ 1.83	\$ 0.44	\$ 3.54	\$ 2.48	\$ 15.96	\$ 53.67
Operating Engineer (OE) (G2)	\$ 36.24	\$ 2.48	\$ 0.58	\$ 0.24	\$ 2.48	\$ 0.60	\$ 4.79	\$ 3.70	\$ 22.77	\$ 73.87
Operating Engineer (OE) (G3)	\$ 34.76	\$ 2.38	\$ 0.56	\$ 0.23	\$ 2.38	\$ 0.58	\$ 4.62	\$ 3.70	\$ 22.77	\$ 71.98
Pile Driver (PD) (G2)	\$ 37.17	\$ 2.53	\$ 0.59	\$ 0.25	\$ 2.53	\$ 0.61	\$ 4.90	\$ 3.70	\$ 22.77	\$ 75.06
Plumber Utility Pipe Fitter	\$ 51.00	\$ 3.18	\$ 0.74	\$ 0.31	\$ 3.18	\$ 0.77	\$ 6.16	\$ 0.30	\$ 29.65	\$ 95.29
Teamster	\$ 27.43	\$ 1.83	\$ 0.43	\$ 0.18	\$ 1.83	\$ 0.44	\$ 3.55	\$ 2.15	\$ 20.42	\$ 58.27
Traffic Control Person I	\$ 27.19	\$ 1.84	\$ 0.43	\$ 0.18	\$ 1.84	\$ 0.45	\$ 3.56	\$ 2.48	\$ 14.62	\$ 52.58
Traffic Control Person II	\$ 24.69	\$ 1.68	\$ 0.39	\$ 0.16	\$ 1.68	\$ 0.41	\$ 3.26	\$ 2.48	\$ 14.62	\$ 49.38
Scaffold / Shoring Erector	\$ 38.65	\$ 2.65	\$ 0.62	\$ 0.26	\$ 2.65	\$ 0.64	\$ 5.12	\$ 4.05	\$ 21.77	\$ 76.40
Elevator Mechanic/Constructor	\$ 57.29	\$ 3.77	\$ 0.88	\$ 0.36	\$ 3.77	\$ 0.91	\$ 7.29	\$ 3.44	\$ 23.84	\$ 101.54
Elevator Mechanic Helper	\$ 40.10	\$ 2.70	\$ 0.63	\$ 0.26	\$ 2.70	\$ 0.65	\$ 5.22	\$ 3.44	\$ 23.84	\$ 79.54
Asbestos Removal Specialist II	\$ 24.87	\$ 1.67	\$ 0.39	\$ 0.16	\$ 1.67	\$ 0.40	\$ 3.23	\$ 2.02	\$ 10.53	\$ 44.94
Lead Removal Worker	\$ 36.25	\$ 2.36	\$ 0.55	\$ 0.23	\$ 2.36	\$ 0.57	\$ 4.57	\$ 1.85	\$ 6.09	\$ 54.84

Equipment	Caltrans Page No	CalTrans Category Sub-Category Rental Quote/ Code	Hourly Rate	Delay Factor	Standby Rate
Equipment			\$ -		
1 Work Truck	34	TRUCK	\$ 33.12	0.14	\$ 4.64
2 Dump truck - 3-axle	34	TRUON	\$ 66.43	0.16	\$ 10.63
3 Tow Behind Trailer	33	TRAIT	\$ 5.72	0.42	\$ 2.40
4 End Dump - 5-axle	34	TRUON	\$ 83.50	0.16	\$ 13.36
5 Generator	6	ELGEN	\$ 14.18	0.11	\$ 1.56
6 Air Compressor	1	AIRCP	\$ 34.31	0.12	\$ 4.12
60-90 Lb. Jack-hammer	1	AIRTOL	\$ 1.31	0.61	\$ 0.80
Air compressor, hoses & hammer total			\$ 35.62		\$ 4.92
7 Arc Welder	34	WELD	\$ 11.87	0.18	\$ 2.14
Welding Rods	N/A	N/A	\$ 5.34		\$ -
F250	34	TRUCK	\$ 33.12	0.14	\$ 4.64
Welder and Truck			\$ 50.33		\$ 6.77
8 Torches and Tanks	34	WELD	\$ 0.24	0.18	\$ 0.04
Oxygen Tank and Acetylene Tank	N/A	N/A	\$ 38.70		\$ -
Total Torches and Tanks			\$ 38.94		\$ 0.04
9 Rotohammer	6	ELTOL	\$ 0.44	0.61	\$ 0.27
Generator	6	ELGEN	\$ 14.18	0.11	\$ 1.56
Rotohammer and Generator			\$ 14.62		\$ 1.83
10 Rivet Buster	1	AIRTOL	\$ 1.31	0.61	\$ 0.80
Air Compressor	1	AIRCP	\$ 34.31	0.12	\$ 4.12
Rivet Buster and Air Compressor			\$ 35.62		\$ 4.92
11 Compactor, Hand Guided	4	COMHG	\$ 8.82	0.18	\$ 1.59

13 Backhoe (John Deere ID 310G)	18 LDDRT	\$ 62.87	0.12	\$ 7.54
Clam Shell Bucket	1 N/A	\$ 9.29	0.12	\$ 1.11
Backhoe w/ Clam Shell total		\$ 72.16		\$ 8.66
14 Breaker attachment for Backhoe	7 HAMMR	\$ 42.26	0.23	\$ 9.72
15 Mini Excavator (Kubota U45)	N/A N/A	\$ 63.79	0.18	\$ 11.48
16 Excavator (Hitachi 200)	N/A N/A	\$ 142.51	0.18	\$ 25.65

17 New Holland Excavator (E135)	N/A	N/A	\$ 120.13	0.18	\$ 21.62
18 Ride-on Sweeper		4 BRMSW	\$ 145.11	0.14	\$ 20.32
19 Bituminous Distributor		4 BITDT	\$ 6.52	0.14	\$ 0.91
Work truck		33 TRUCK	\$ 33.12	0.14	\$ 4.64
Bituminous Distributor with truck			\$ 39.64		\$ 5.55
20 Fork Lift Truck		6 FKLFT	\$ 27.14	0.20	\$ 5.43
21 Concrete Saw		28 SAWCO	\$ 19.63	0.14	\$ 2.75
Saw blade 12" x \$18 per hour (100 LF)		28 SAWCO	\$ 216.00	0.14	\$ 30.24
Concrete Saw and Blade			\$ 235.63		\$ 32.99
22 Water Pump		22 PUMWA	\$ 22.61	0.35	\$ 7.91
23 Confined Space Equipment					
Gas Detector 4-Gas w/ Motorized Integral Pump			\$22.79		
Blower Portable w/ 8"x15' Hose			\$8.82		
Retrieval 65' Winch for Tripod			\$11.53		
SCBA-NFPA Approved 2216 PSI Complete alrpeck			\$9.03		
Total Confined Space			\$52.15		
24 Traffic Control (per street, intersection = x2 streets)					
Construction Signs		32 TR AFC	\$7.29		
Changeable Message Boards		32 TR AFA	\$9.92		
Arrow Board		32 TR AFA	\$3.20		
No Parking Signs (A-frames)		32 TR AFC	\$0.22		
Cones (per 100)		32 TR AFC	\$13.27		
25 Interlocking Water Filled Triton Barrier		N/A N/A	\$4.07		
\$30 per day /8 plus tax					
26 Traffic Plates Installed					
Total per Plate (small)		N/A N/A	\$9.48		

27 Trench Shoring (4' wide trends)	\$4.34		
Total per trench shore	\$2.17		

Sign #	Signs → (Signs)	Legend	Street	Cross Street	Facing	Mounting
1	B	Stockton Closed at Geary	Stockton	Bush/Portal	SB	Street Light
2	101+DR	S 101 Detour Rt	Stockton	Sutter (NW)	SB	Street Light
3	101+DV	S 101 Detour Ver	Sutter	Powell (NW)	WB	Street Light
4	101+DV	S 101 Detour Ver	Sutter	Mason (NW)	WB	Street Light / Muni
5	101+DV	S 101 Detour Ver	Sutter	Jones (NW)	WB	Street Light / Muni
6	101+DL	S 101 Detour Lt	Sutter	Hyde (SE)	WB	Street Light / Muni
7	E7	4th / 101 / Ver	Geary	Powell (NW)	WB	Exist'g to Remain
8	101+DV	S 101 Detour Ver	Geary	Mason (NW)	WB	Street Light
9	101+DV	S 101 Detour Ver	Geary	Jones (NW)	WB	Street Light
10	101+DL	S 101 Detour Lt	Geary	Hyde (SE)	WB	Street Light
11	101+80+DR	S 101, E 80, Detour Rt	Ellis	Garage Exit	SB	Temp
12	101+80+DV	S 101, E 80, Detour Ver	Ellis	Mason (NW)	WB	Street Light
13	101+80+DV	S 101, E 80, Detour Ver	Ellis	Jones (NW)	WB	Street Light
14	101+80+DL	S 101, E 80, Detour Lt	Ellis	Hyde (SE)	WB	Street Light
15	101+DV	S 101 Detour Ver	Hyde	Post (SW)	SB	Street Light
16	80+DR	E 80 Detour Rt	O'Farrell	Larkin-Hyde (Midblock)	EB	Street Light
17	A	Stockton Closed	O'Farrell	Hyde (SE)	EB	Street Light
18	101+DV	S 101 Detour Ver	Hyde	O'Farrell (SW)	SB	Street Light
19	101+80+DV	S 101, E 80, Detour Ver	Hyde	Eddy (SW)	SB	Street Light
20	101+80+DV	S 101, E 80, Detour Ver	Hyde	Golden Gate (SW)	SB	Street Light
21	101+80+DV	S 101, E 80, Detour Ver	8th St	Market (SW)	SB	Street Light
22	101+DR, 80+DV	S 101 Detour Rt / E 80 Detour Ver	8th St	Howard (NE)	SB	Street Light
23	101+DL	S 101 Detour Lt	Howard	10th St (SE)	WB	Street Light
24	80+DV	E 80 Detour Ver	8th St	Folsom (SW)	SB	Signal / Street Light
25	80+DL	E 80 Detour Lt	8th St	Bryant (NW)	SB	Street Light
26	E3	4th St / 80 / Lt	Stockton	Sutter-Post (Midblock)	SB	Exist'g to Remain
27	B	Stockton Closed at Geary	Post	Powell-Stockton (Midblock-S/S)	EB	Street Light
28	80+DV	E 80 Detour Ver	Post	Stockton (SW)	EB	Street Light
28	--	Parking / Union Sq / Ver	Post	Stockton (SW)	EB	REMOVE
29	80+DV	E 80 Detour Ver	Post	Kearny (SW)	EB	Street Light
30	80+DR	E 80 Detour Rt	Post	Montgomery (SE)	EB	Signal
31	EXIST'G / REMAIN	4th St / 80E / Ver	NewMontg	Market (SE)	SB	Signal
32	A	Stockton Closed	O'Farrell	Powell-Stockton (Midblock-N)	EB	Street Light
33	80+DL	E 80 Detour Lt	O'Farrell	Grant/Market (SW)	EB	Street Light
33	--	4th St / 80 / Ver	O'Farrell	Grant/Market (SW)	EB	REMOVE
34	80+DV	E 80 Detour Ver	Grant	O'Farrell (NE)	NB	Street Light
35	80+DR	E 80 Detour Rt	Grant	Post (SE)	NB	Street Light
36	E1	80, 101 Left Lane	NewMontg	Natoma (NE)	SB	Exist'g to Remain
37	101+80+DR	S 101, E 80, Detour Rt	NewMontg	Howard (S)	SB	Street Light
37	--	4th St / Detour Lt	NewMontg	Howard (S)	SB	REMOVE
38	101+80+DL	S 101, E 80, Detour Lt	Howard	Hawthorne (SW)	WB	Signal
39	E5	S 101 Detour Ver / E 80 Detour Lt	Hawthorne	Folsom (NW)	SB	Exist'g to Remain
40	E8	4th St / 101 / Rt	Hawthorne	Harrison (NW)	SB	Exist'g to Remain
41	101+DR	S 101 Detour Rt	O'Farrell	Van Ness (NW)	EB	Street Light
42	E4	4th St / 80 / Ver	Post	Stockton (E/O)	EB	Exist'g to Remain
43	E7	4th St / 101 / Ver	Geary	Stockton (W/O)	EB	Exist'g to Remain
44	--	4th St / 101 / Lt	Geary	Mason (NE)	EB	REMOVE
45	E2	4th St / Right Lanes	NewMontg	Natoma (NW)	SB	Exist'g to Remain
46	E7	4th St / 101 / Ver	5th St	Market (SW)	SB	Exist'g to Remain
47	E6	S 101 Ver	5th St	Mission (NW)	SB	Exist'g to Remain
48	E4	4th St / 80 / Ver	O'Farrell	Stockton (E/O)	EB	Exist'g to Remain

E-series signs = existing to remain.

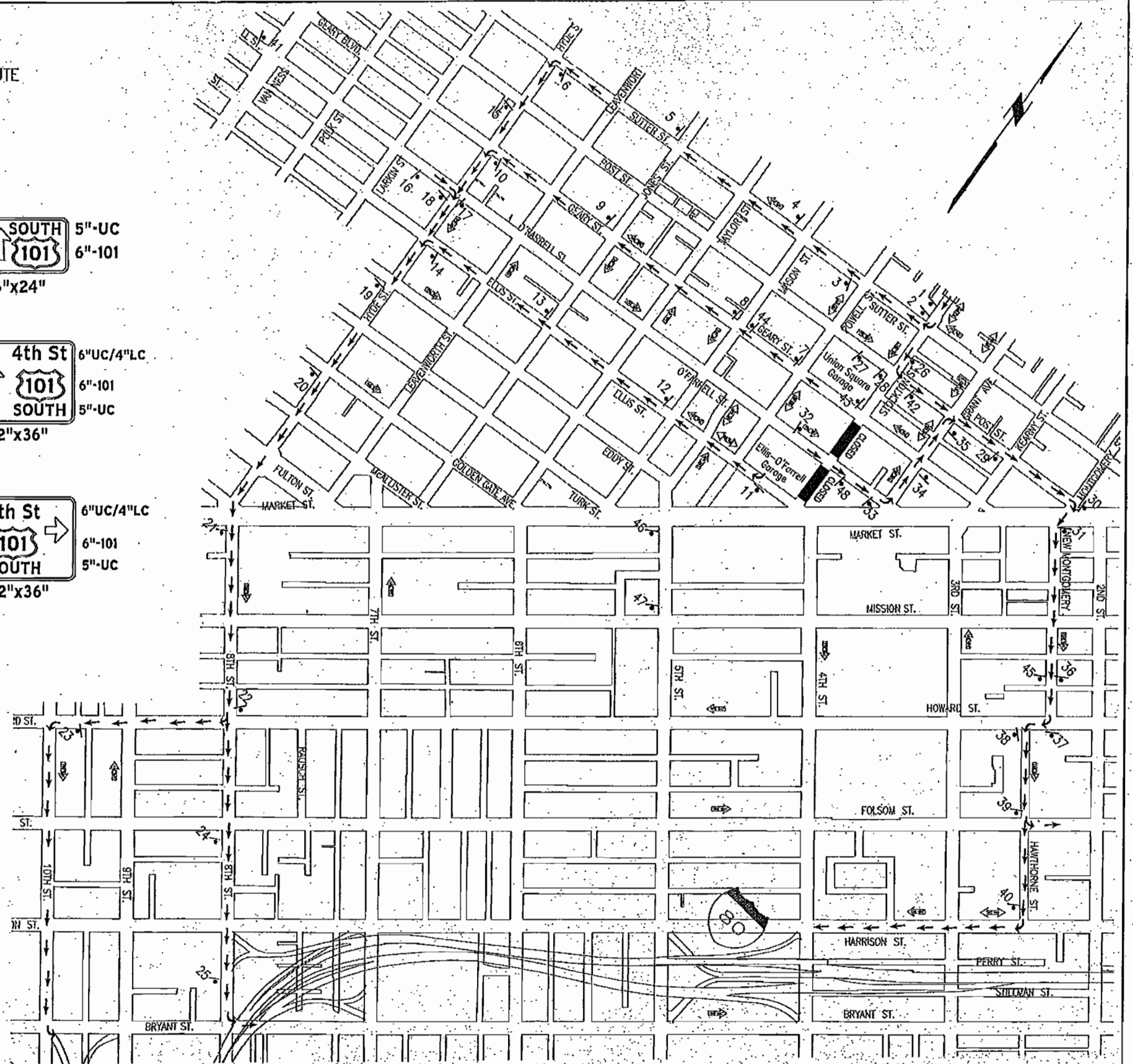
DETOUR SIGN PLAN
CENTRAL SUBWAY CONSTR
1252 - TUNNEL CONTRACT

LEGEND
← DETOUR ROUTE
● SIGN
9/6/12

DETOUR SIGNS

- A** Stockton CLOSED USE DETOURS 48"x42"
6"UC / 4"LC black on orange
orange on black 8"UC
black on orange 4"UC
- B** Stockton CLOSED at Geary USE DETOURS 48"x42"
6"UC / 4"LC black on orange
orange on black 8"UC
black on orange 4"UC
- 101** SOUTH 101 5"-UC 6"-101 30"x24"
- 80** EAST 80 5"-UC 8"-80 30"x30"
- DR** M4-10R DETOUR 48"x18"
- DL** M4-10L DETOUR 48"x18"
- SC3(Ca)** DV ↑ DETOUR 48"x18"
- E1** 80 101 LEFT LANE 48"x30"
6"-80 6"-101 5"-UC
- E2** 4th Street RIGHT LANES 48"x24"
6"UC/4"LC 5"-UC
- E3** 4th Street 80 EAST ← DETOUR 48"x36"
6"UC/4"LC 6"-80 5"-EAST black on orange 6"-UC orange on black
- E4** 4th St Bay Br 42"x36"
6"UC/4"LC 6"-80 6"UC/4"LC
- E5** SOUTH 101 Bay Bridge ← 60"x42"
5"UC 6"-101 6"-80 6"UC-4"LC
- E6** SOUTH 101 36"x24"
5"-UC 6"-101
- E7** 4th St 101 SOUTH 42"x36"
6"UC/4"LC 6"-101 5"-UC
- E8** 4th St 101 SOUTH 42"x36"
6"UC/4"LC 6"-101 5"-UC

NOTES:
All signs to be black on reflective orange & mounted on poles at least 7' high
"UC" = Upper case lettering / "LC" = Lower Case lettering
Numerals in shields shall be 6" in height
"E" Series signs are existing to remain



T:\T_E_FILES\Construction Section\PERSONNEL\Broody\Central Subway\Subway Detour Signs (accd) Detour Signs (accd) CanSubway.dwg sbroody Thu Sep 06 2012 5:07 pm Layout

<p>SFMTA</p>				<p>CITY AND COUNTY OF SAN FRANCISCO MUNICIPAL TRANSPORTATION AGENCY</p>		<p>THIRD STREET LIGHT RAIL PROGRAM PHASE 2 - CENTRAL SUBWAY</p>		<p>CONTRACT NO. [REDACTED] SFMTA CONTROL NO. [REDACTED]</p>	
<p>DESIGNED: [REDACTED] DRAWN: [REDACTED] CHECKED: [REDACTED] REVIEWED: [REDACTED] RECOMMENDED: [REDACTED] APPROVED: [REDACTED] DATE: [REDACTED]</p>				<p>APPROVED FOR EXECUTIVE DIRECTOR/CEO</p>		<p>TRAFFIC DETOUR PLAN</p>		<p>DRAWING NO. [REDACTED] REVISION [REDACTED] SHEET NO. 0</p>	
DATE	DESCRIPTION	REV. NO.	BY	CHECKED	APPROVED				

SFMTA Contract No. 1252

Contractor: Barnard Impregilo Healy JV (BIH)

EVALUATION OF MERIT

COR 017

Recommendation: Reject justification of Merit for the costs associated with COR 017. Costs for re-routing the traffic signal line have been evaluated under COR 011.

Facts: During utility demolition excavation at the Moscone south headwall BIH's subcontractor, Synergy Project Management (Synergy or SPM) discovered three existing live traffic signal conduits which ran lengthwise across the planned headwall. Drawing UD-403, Rev. 1 shows the existence of one live traffic signal line which crosses the southwest corner of the headwall and another live traffic signal line approximately 5' to 6' south of the headwall. The drawing requires that BIH maintain active utilities so these lines would need to be protected in place during construction.

The locations of the live traffic signal lines encountered prevented SPM from performing utility demolition and guide wall installation work as originally planned. SPM also claimed to be on standby while a resolution to relocate the traffic signal outside the footprint of the south station headwall was being determined. Attached is a timeline of the change that took place.

Rationale for COR: The contract documents do not accurately depict the location of the existing traffic signal lines. The field location of the TS line prohibited SPM from performing any utility demolition or guide wall work. In addition to direct costs COR 017 was provided to the SFMTA to cover standby costs while a solution to the traffic line location was being determined.

Justification: The excavation performed to locate the traffic signals was contract work as contract specification 02.30.00 requires the contractor to perform potholing activities 14 working days prior to performing any excavation activities; therefore, no additional compensation for potholing shall be granted.

Technical direction was provided on July 6, four days after receipt of the RFI related to this work, and BIH/SPM could have proceeded with the work immediately thereafter. Article 6 of the General Provisions states that "The City may, at any time between the Notice to Proceed and Final Acceptance, on its own initiative or in a RFI Response, and without notice to Contractor's surety, may order additions, deletions, or revisions in the Work and materials by Change Order or Unilateral Change Order. Contractor shall promptly comply with such orders and proceed with the Work as directed by the Engineer and required by the Contract Documents."

The RE believes there was other work available to perform and standby costs are not compensable. The extent and duration of submitted standby cost requires further evaluation, but is likely to be disapproved.

SFMTA Contract No. 1252

Contractor:

Barnard Impregilo Healy JV (BIH)

By: _____ Date _____
Sarah Wilson
Resident Engineer

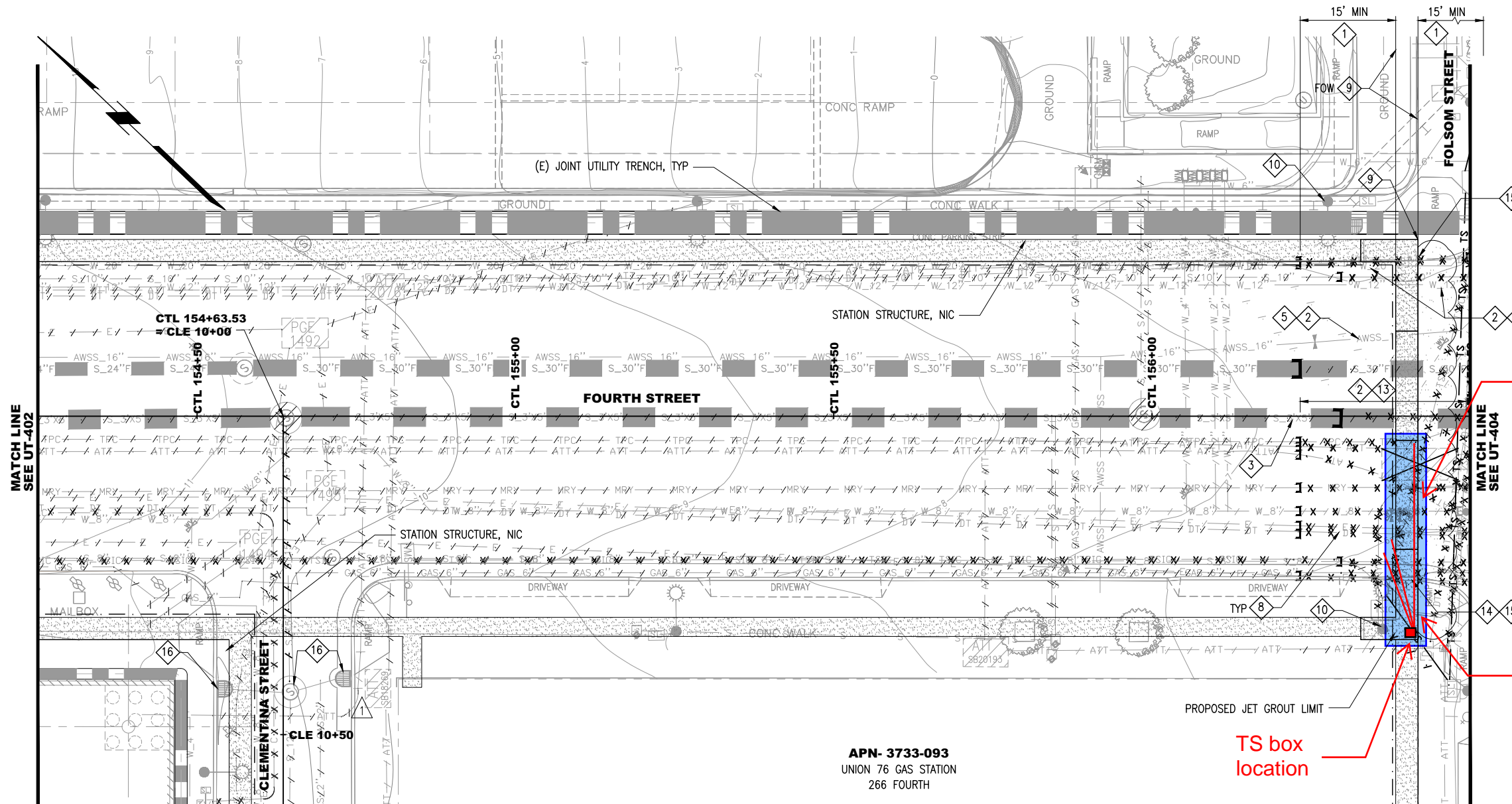
_____ Date _____
Configuration Management Board
Approval

SFMTA Contract No. 1252

Contractor: Barnard Impregilo Healy JV (BIH)

COR 17 - TIMELINE

- 06/18/12 - BIH/SPM submitted RFI 103 to address the existence of a SFDT utility box located against the southwest corner of the south MOS headwall.
- 06/22/12- The RE indicated that the utility in question was a traffic signal box and suggested potholing to expose the lines leading up to this box to determine what needs to be protected during guide wall and headwall installation.
- 06/28/12 - 06/29/12 - SPM performed potholing for the traffic signal and discovered that several traffic signal lines (not shown correctly on UD-403, Rev. 1) were installed across the headwall.
- 07/02/12 - SPM provided RFI 110 which contained a proposal to permanently re-route these lines per the attached sketch and photos.
- 07/06/12 – SFMTA provided a response to RFI 110 to reroute the utilities across the north leg of the intersection so that it would not interfere with the work at the headwall.
- 07/25/12 - SFMTA authorized to proceed with the work summarized in the response to RFI 110 and COR 11.
- 07/27/12 - SPM commenced traffic signal relocation.
- 08/02/12 - Work was completed.



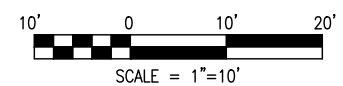
All utilities in this area of demo limits shown to be abandoned

TS line as discovered in field

TS box location

NOTES:

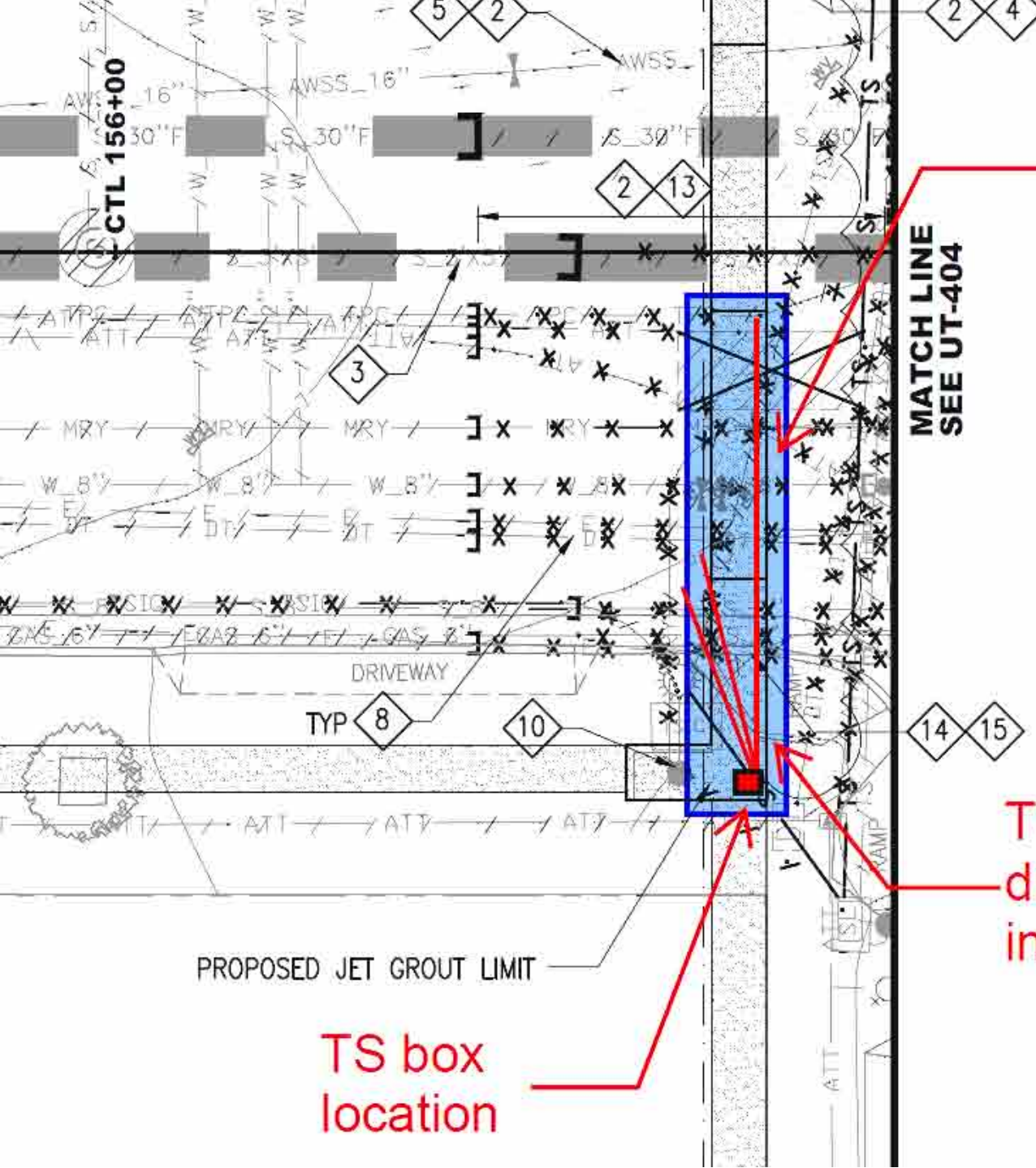
- DEMOLISH AND REMOVE ALL ABANDONED UTILITY FACILITIES, INCLUDING PREVIOUSLY ABANDONED FACILITIES NOT SHOWN ON PLANS, AT JET GROUT OR HEADWALL LIMIT.
- ACTIVE UTILITIES SHALL BE MAINTAINED UNTIL RELOCATION OR CUT OVER, UNLESS OTHERWISE NOTED. COORDINATE DEMOLITION WITH HEADWALL CONSTRUCTION PHASING.
- PROTECT (E) SEWER.
- SEE (WD) DRAWINGS FOR ABANDONMENT AND REMOVAL OF WATER FACILITIES.
- SEE (AW) DRAWINGS FOR ABANDONMENT AND REMOVAL OF AWSS FACILITIES.
- PROTECT (E) AT&T FACILITIES.
- PROTECT (E) JOINT TRENCH.
- CAP OR PLUG ALL ABANDONED FACILITIES INCLUDING PREVIOUSLY ABANDONED FACILITIES NOT SHOWN ON PLANS AT JET GROUT LIMIT.
- PROPOSED STATION HEADWALL. SEE (ES) DRAWINGS FOR LOCATION AND DETAILS. CONTRACTOR SHALL VERIFY THE HEADWALL LOCATION PRIOR TO COMMENCEMENT OF DEMOLITION.
- TEMPORARILY REMOVE (E) STREET LIGHT AND REINSTALL AFTER HEADWALL CONSTRUCTION.
- (E) PARKING METERS. CONTACT DPT IF DEMOLITION IS REQUIRED. SEE CONTRACT SPECIFICATIONS FOR MORE INFORMATION. IF REMOVED, REINSTALL IN SAME LOCATION AFTER HEADWALL CONSTRUCTION.
- REMOVE (E) TREE AS CONTRACTOR'S PROPERTY. PRIOR TO REMOVAL CONFIRM STREET TREE REMOVAL PERMIT WAS OBTAINED.
- SEE (UT) DRAWINGS FOR TEMPORARY REMOVAL OF SEWER.
- REMOVE (E) CURB AND GUTTER AS NECESSARY AND REINSTALL AFTER HEADWALL CONSTRUCTION.
- SEE (PD) & (RP) FOR PAVEMENT REMOVAL AND RESTORATION.
- (E) CATCH BASINS WILL REMAIN ACTIVE AND RE-DIRECT SEWER FLOW AWAY FROM STATION JET GROUT WALL.



CONFORMED

\\s6nos003\m544.1\FinalDesign\Drawing-821\2-Civil\Utility Demolition\Sheet Files CP03\M54423UD403_R1C.dwg fboyani Thu Aug 25, 2011 9:21 am UD-403_R1C

				DESIGNED: M. DEFORGE DRAWN: E. MATIAS CHECKED: D. ZUJURING REVIEWED: M. CHAN RECOMMENDED: M. FOWLER APPROVED: R. EDWARDS DATE: JAN 21, 2011		REV. 0 SEALED BY M. CHAN				CITY AND COUNTY OF SAN FRANCISCO MUNICIPAL TRANSPORTATION AGENCY		APPROVED CARTER R. ROHAN EXECUTIVE DIRECTOR/CEO		THIRD STREET LIGHT RAIL PROGRAM PHASE 2 - CENTRAL SUBWAY TUNNELS		CONTRACT NO. 1252	
05/04/2011 ISSUED FOR ADDENDUM 5		01/21/2011 ISSUED FOR BID		DATE DESCRIPTION		FOR ORIGINAL SIGNATURES, SEE CL-18030, REV. 0.		UTILITY DEMOLITION MOSCONE STATION CTL 154+25 TO 156+50		SFMTA CONTROL NO. CL-18030		DRAWING NO. UD-403		REVISION 1			



All utilities in this area of demo limits shown to be abandoned

MATCH LINE
SEE UT-404

TS line as discovered in field

PROPOSED JET GROUT LIMIT

TS box location



SFMTA Contract No. 1252

Contractor: Barnard Impregilo Healy JV (BIH)

EVALUATION OF MERIT

COR 018

Recommendation: Accept justification of Merit for COR 018 for additional cost. The contract documents do not depict permanent endstops at the ends of the Moscone headwalls. Additional effort (labor, equipment and materials) will be required to accomplish this work. There is no request for a time extension for this work.

Facts: SFMTA is requiring that BIH leave end stops at the Moscone headwalls in place at the completion of CN 1252. (Refer to the responses to RFI 00122, 00136, and 00136.1.) The following activities are required to be performed in order to install permanent end stops: install 4 wide flange beams per the attached SFMTA sketch (see attached Figure 1) including procurement of wide flange beams, installing Styrofoam to blocking, installing Nelson Studs on beams, and installing beams in concrete panels.

Rationale for COR: BIH believes that the contract does not require endstops or waterstops to be installed at the ends of Moscone headwalls because they are not indicated on the contract drawings.

Justification: Contract drawing ES-421 Rev. 0, Note 2 states “End stops are not shown. See specifications.” Specification Section 31 66 16 1.06 11 states that the contractor shall “Provide a comprehensive Construction Work Plan detailing the overall construction sequence for the slurry wall system, including: Approach for constructing joints between adjacent wall panels, including the use of end stops and waterstops...”.

Section 11 titled “Construction Joints” of BIH’s approved Construction Work Plan states that “Endstop with continuous waterstop will be used at all panel joints at the Moscone station location only.” BIH indicated end stops will be at all panel joints; however, the contract drawings do not indicate panels adjacent to the return walls being installed under this contract.

The locations and requirement for permanent end stops at the ends of the Moscone headwalls is not clear in the contract documents, therefore, compensation for permanent end stops is justified.

By: _____ Date _____
Sarah Wilson
Resident Engineer

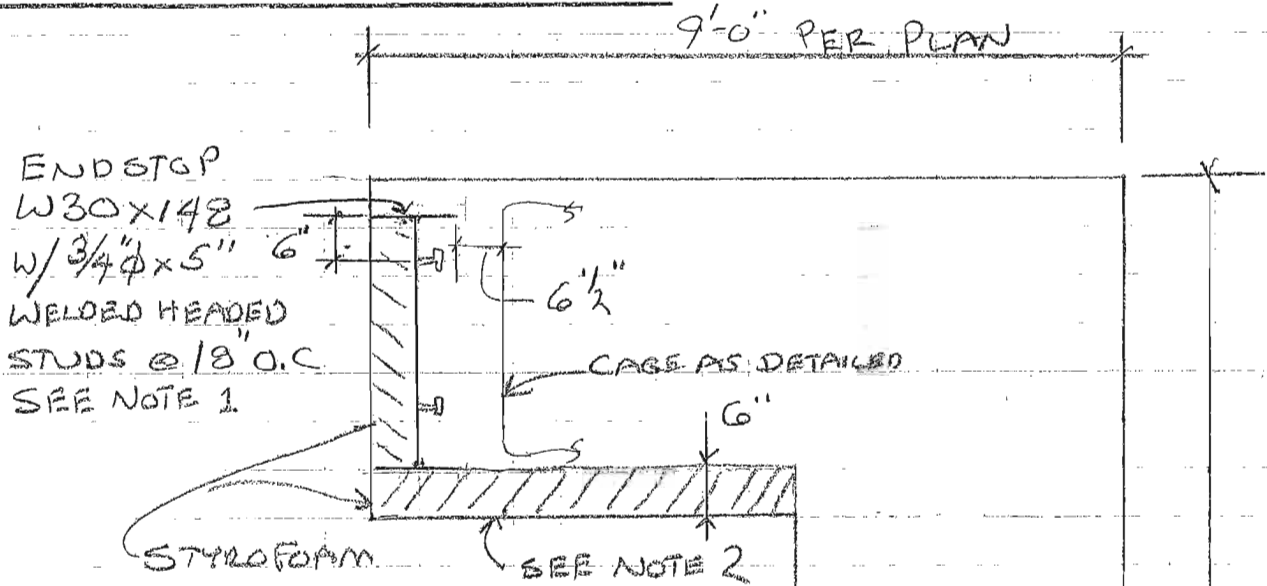
_____ Date _____
Configuration Management Board
Approval



48 Colin P. Kelly Street
San Francisco CA 94107
T 415 989 9900
F 415 989 9909
www.soha.com

PROJECT CENTRAL SUBWAY - 1252
JOB NO. 100504
DATE 8-14-12 BY AD
SHEET 1 OF 2

END STOP - WF OPTION



NOTES:

1. END STOP TO EXTEND TO 15 FEET BELOW BOTTOM OF INVERT SLAB. SPLICE USING AISC MINIMUM PARTIAL JOINT PENETRATION WELDS AT FLANGES AND WEB. USE MULTIPLE PICK POINTS AS REQUIRED TO PREVENT DAMAGE DURING LIFTING.
2. SPACERS MAY BE USED IN LIEU OF THE 6 INCHES OF STYROFOAM AT THIS LOCATION ONLY. STYROFOAM BLOCKOUT IS REQUIRED AT END STOP WEB AS SHOWN.

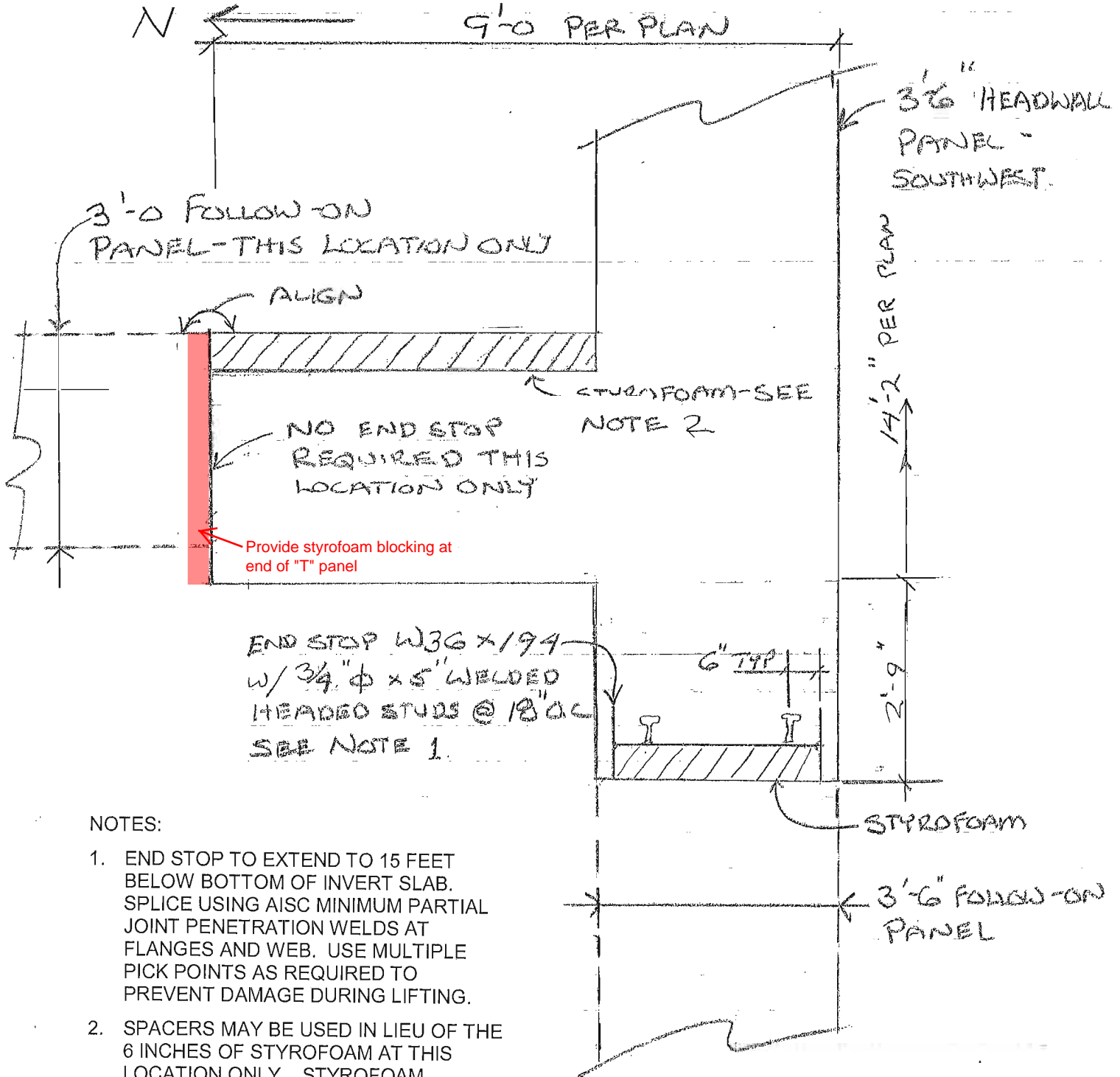
TYPICAL CORNER PANEL - WF END STOP
1/2" = 1'-0"



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PROJECT CENTRAL SUBWAY - 1252
 JOB NO. 100504
 DATE 8-14-12 BY AD
 SHEET 2 OF 2

END STOP - WF OPTION



NOTES:

1. END STOP TO EXTEND TO 15 FEET BELOW BOTTOM OF INVERT SLAB. SPLICE USING AISC MINIMUM PARTIAL JOINT PENETRATION WELDS AT FLANGES AND WEB. USE MULTIPLE PICK POINTS AS REQUIRED TO PREVENT DAMAGE DURING LIFTING.
2. SPACERS MAY BE USED IN LIEU OF THE 6 INCHES OF STYROFOAM AT THIS LOCATION ONLY. STYROFOAM BLOCKOUT IS REQUIRED AT END STOP WEB AS SHOWN.

SOUTHWEST CORNER - WF END STOP

1/2" = 1'-0"

SFMTA Contract No. 1252

Contractor: Barnard Impregilo Healy JV (BIH)

EVALUATION OF MERIT

COR 033

Recommendation: Accept justification of Merit for costs associated with COR 033. The contract documents do not accurately depict the correct location of an existing 20" water line. The water line's location and position underneath a MUNI (MRY) electrical duct bank will impact the contract work associated with the installation of the new low pressure water line. Additional effort will be required to mitigate impacts to the contract work. No additional time will be granted as this work will not affect the critical path of the project.

Facts: The relevant contract drawings are UD-701 Rev.0, UT-701 Rev.1 and UT-721 Rev.1. WD-701 Rev.0.

The existing MRY duct bank which runs south to north at the intersection of Columbus Ave. and Union St. is shown in the contract drawings to have been installed to the side of an existing 20" low pressure water line. During the excavation required for the contract water line removal and relocation work BIH's subcontractor, Synergy Project Management (Synergy or SPM), discovered that the existing water line was actually further east than was indicated in the drawings which positioned the tie-in connection for the new water line directly underneath the MRY duct bank.

Rationale for COR: SPM states that they originally intended on excavating a 5' x 5' tie-in hole to enable the water department to cap the existing line then backfill after the water department completed its work. Due to the close proximity of the existing water line to the MRY duct bank, SPM is now required to excavate and shore a larger hole in order to demolish the concrete around the duct bank and allow room for the water department to stub the existing 20" water line out from underneath the MUNI lines. SPM states that they must demolish more of the duct bank than was anticipated so that they can lift the MUNI electrical lines out of the way. After the tie-in is complete SPM will install a split duct to cover existing cables and restore the concrete encasement around the MUNI duct. As a result of having a larger excavation more shoring, steel plates, backfill and paving will be required than was originally anticipated. SPM claims that they will not be able to achieve the same production rates as assumed during the time of bid due to the presence of live electrical lines within the ductbank.

Justification: The contract drawings do not accurately depict the correct location of the 20" water line and therefore the additional costs that will be incurred to mitigate impacts to the installation of the new low pressure water line should be made compensable. The appropriate dimensions of the original excavation will be confirmed and compared to the revised excavation dimensions.

SFMTA Contract No. 1252

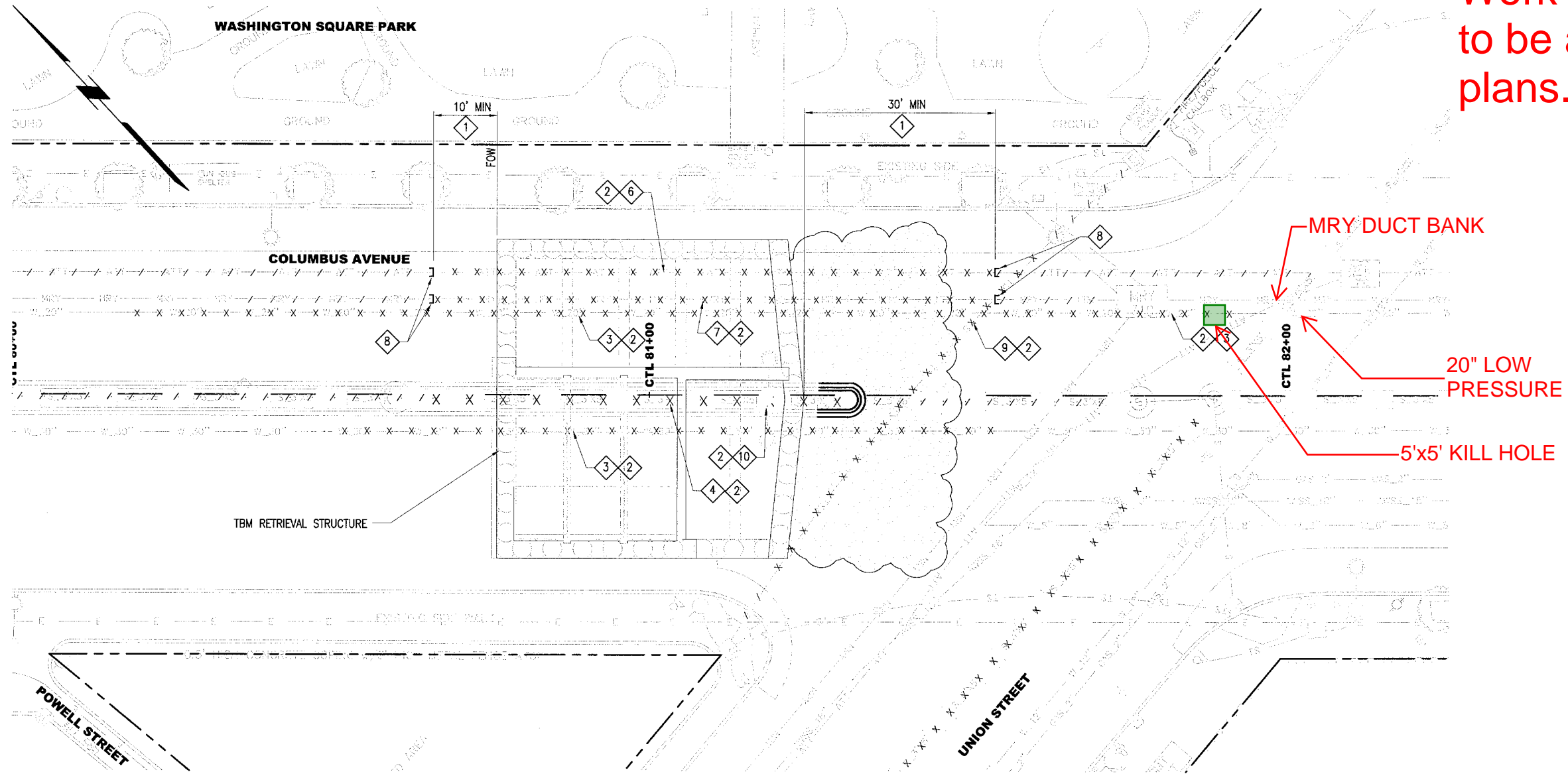
Contractor:

Barnard Impregilo Healy JV (BIH)

By: _____ Date _____
Sarah Wilson
Resident Engineer

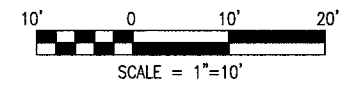
_____ Date _____
Configuration Management Board
Approval

Work claimed by SPM to be anticipated per plans.



NOTES:

1. DEMOLISH AND REMOVE ALL ABANDONED UTILITY FACILITIES, INCLUDING PREVIOUSLY ABANDONED FACILITIES NOT SHOWN ON PLANS, WITHIN LIMITS OF RETRIEVAL SHAFT STRUCTURE AND TO THE LIMITS INDICATED, UNLESS OTHERWISE NOTED.
2. ACTIVE UTILITIES SHALL BE MAINTAINED UNTIL RELOCATION OR CUT-OVER, UNLESS OTHERWISE NOTED. COORDINATE DEMOLITION WITH RETRIEVAL SHAFT CONSTRUCTION PHASING.
3. REMOVE WATER LINE. SEE WATER DISTRIBUTION (WD) DRAWINGS FOR ABANDONMENT AND REMOVAL.
4. REMOVE SEWER. SEE (SW) DRAWINGS FOR ABANDONMENT.
5. SEE (AW) DRAWINGS FOR ABANDONMENT AND REMOVAL OF AWSS FACILITIES.
6. REMOVE AT&T DUCT BANK. SEE (JT) DRAWINGS FOR ABANDONMENT.
7. REMOVE MRY DUCT BANK. SEE (JT) DRAWINGS FOR ABANDONMENT.
8. CAP OR PLUG ALL ABANDONED FACILITIES, INCLUDING PREVIOUSLY ABANDONED FACILITIES NOT SHOWN ON PLANS, AT JET GROUT OR SECANT PILE LIMIT.
9. REMOVE TRAFFIC SIGNAL CONDUIT. SEE (TS) DRAWINGS FOR ABANDONMENT.
10. SEE STREET LIGHT (SL) DRAWINGS FOR REMOVAL/RELOCATION.

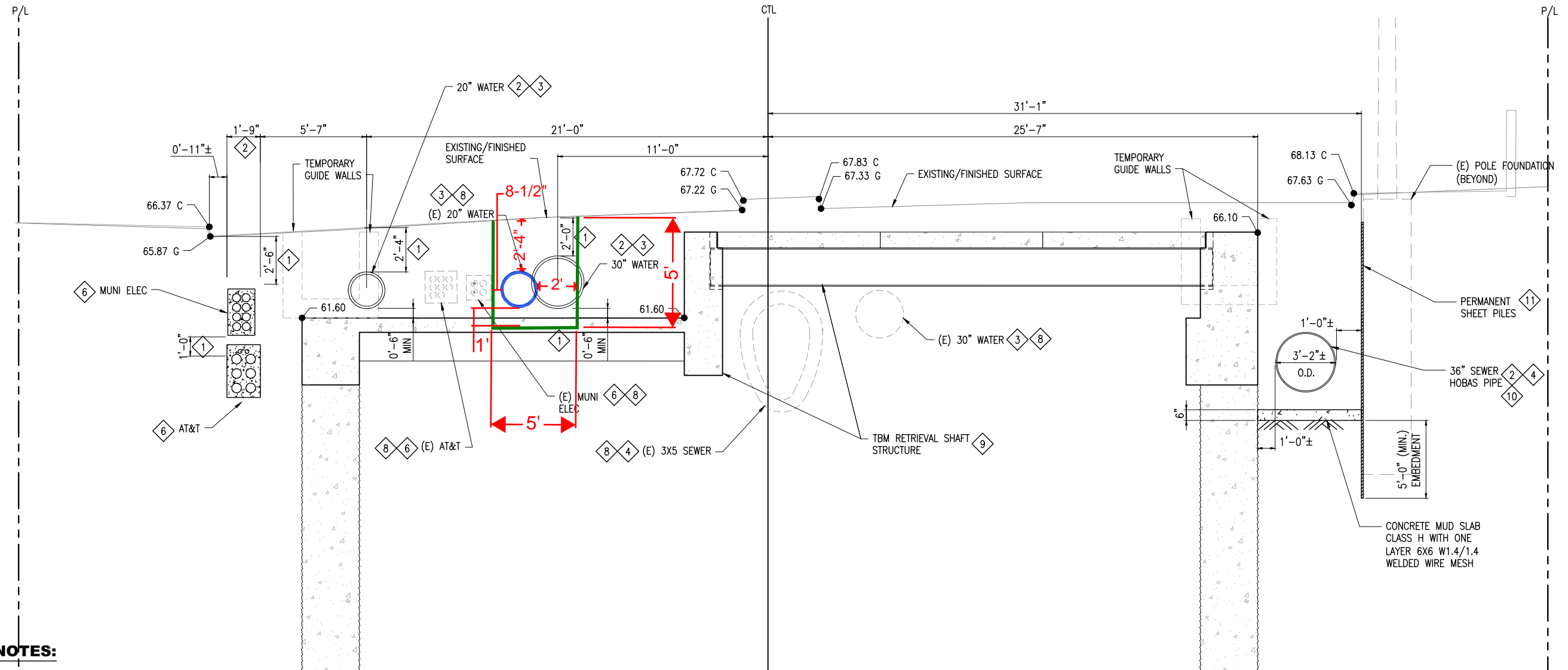


CONFORMED

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				CITY AND COUNTY OF SAN FRANCISCO MUNICIPAL TRANSPORTATION AGENCY		THIRD STREET LIGHT RAIL PROGRAM PHASE 2 - CENTRAL SUBWAY TUNNELS		CONTRACT NO. 1252	
				APPROVED EXECUTIVE DIRECTOR/CEO		UTILITY DEMOLITION TBM RETRIEVAL SHAFT CTL 80+00 TO 82+25		SFMTA CONTROL NO. CL-18035	
01/21/2011 ISSUED FOR BID		DESIGNED: M. DEFORGE DRAWN: F. BAYANI CHECKED: D. ZUURING REVIEWED: M. CHAN RECOMMENDED: M. FOWLER APPROVED: R. EDWARDS DATE: JAN 21 2011		DATE: 01/21/2011 DESCRIPTION: ISSUED FOR BID REV. NO.: 0 BY: _____ CHECKED: _____ APPROVED: _____		DRAWING NO. UD-701		REVISION SHEET NO. 28 / 0	

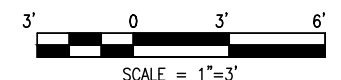
Work claimed by SPM to be anticipated per plans.



NOTES:

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3. WATER PIPE - SEE WD DRAWINGS.
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11. INSTALL TO REMAIN AS PERMANENT USS INTERLOCKING SHEET PILING SECTION PSX32 (WEIGHT = 32 LB/FT/FT, SECTION MODULUS = 2.4 CUBIC INCH/FT) ASTM A328 OR APPROVED EQUIVALENT.
12. TEMPORARY BRACING AND WALERS FOR SHEET PILING TO BE DESIGNED BY CONTRACTOR. MAXIMUM SPACING BETWEEN BRACING LEVELS SHALL NOT EXCEED 6'-0".

**SECTION @ CTL 80+76
LOOKING SOUTH**



CONFORMED

FOR ORIGINAL SIGNATURES, SEE CL-18002, REV. 0.

DATE	DESCRIPTION	REV. NO.	BY	CHECKED	APPROVED
05/05/2011	ISSUED FOR ADDENDUM 5	0	DZ	MC	RE
01/21/2011	ISSUED FOR BID	0	-	-	-

PB TELAMON
TELAMON ENGINEERING CONSULTANTS INC.

DESIGNED M. DEFORGE
DRAWN F. BAYANI
CHECKED P. WILSON
REVIEWED M. CHAN
RECOMMENDED M. FOWLER
APPROVED R. EDWARDS
DATE JAN 21, 2011

REV. 0
SEALED BY
M. CHAN



CITY AND COUNTY OF SAN FRANCISCO
MUNICIPAL TRANSPORTATION AGENCY

APPROVED
CARTER R. ROHAN
EXECUTIVE DIRECTOR/CEO

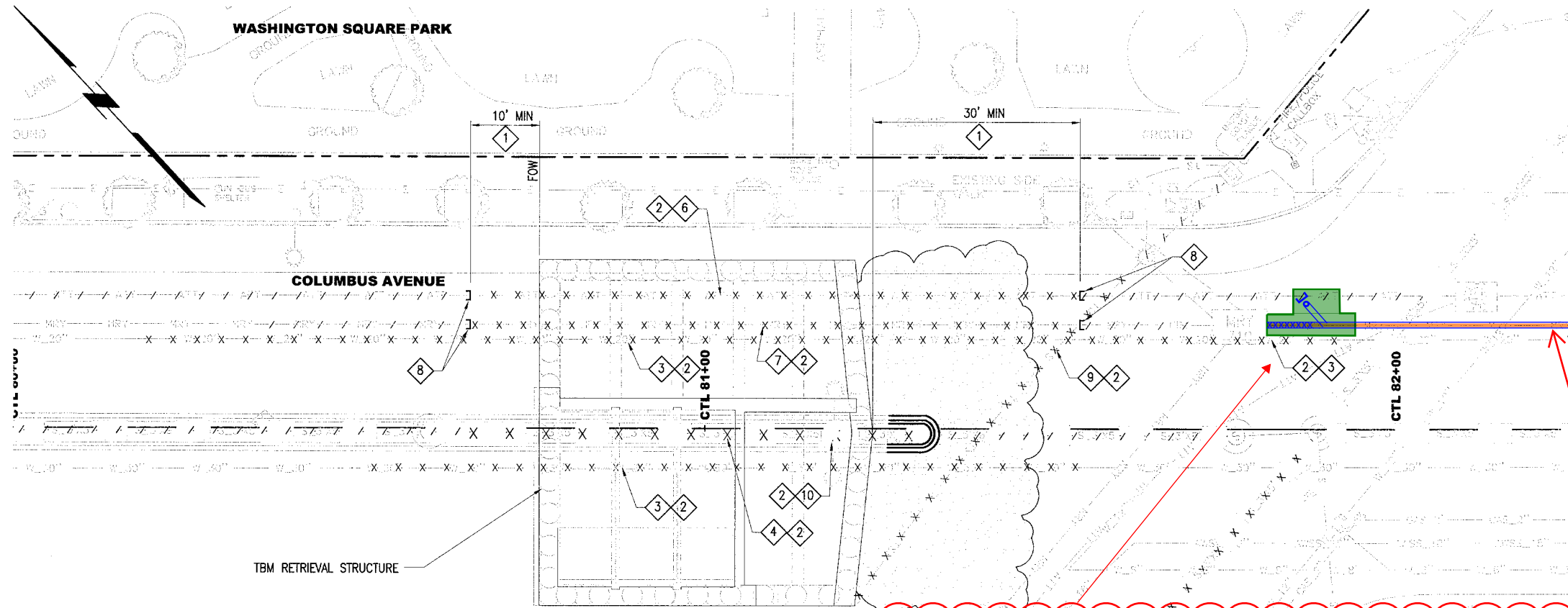
THIRD STREET LIGHT RAIL PROGRAM
PHASE 2 - CENTRAL SUBWAY TUNNELS

UTILITY COMPOSITE
TBM RETRIEVAL SHAFT
CROSS SECTION AT CTL 80+76

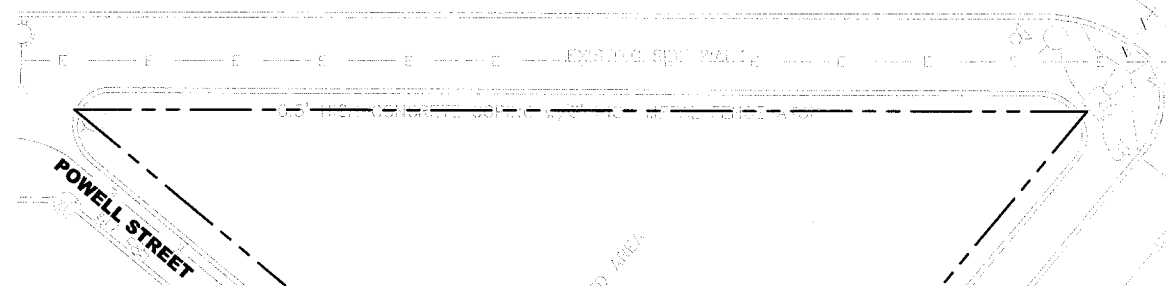
CONTRACT NO. 1252
SFMTA CONTROL NO. CL-18002
DRAWING NO. UT-721
SHEET NO. 1

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Work proposed by SPM to be done per actual conditions in the field.

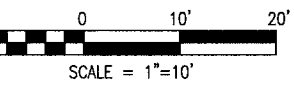
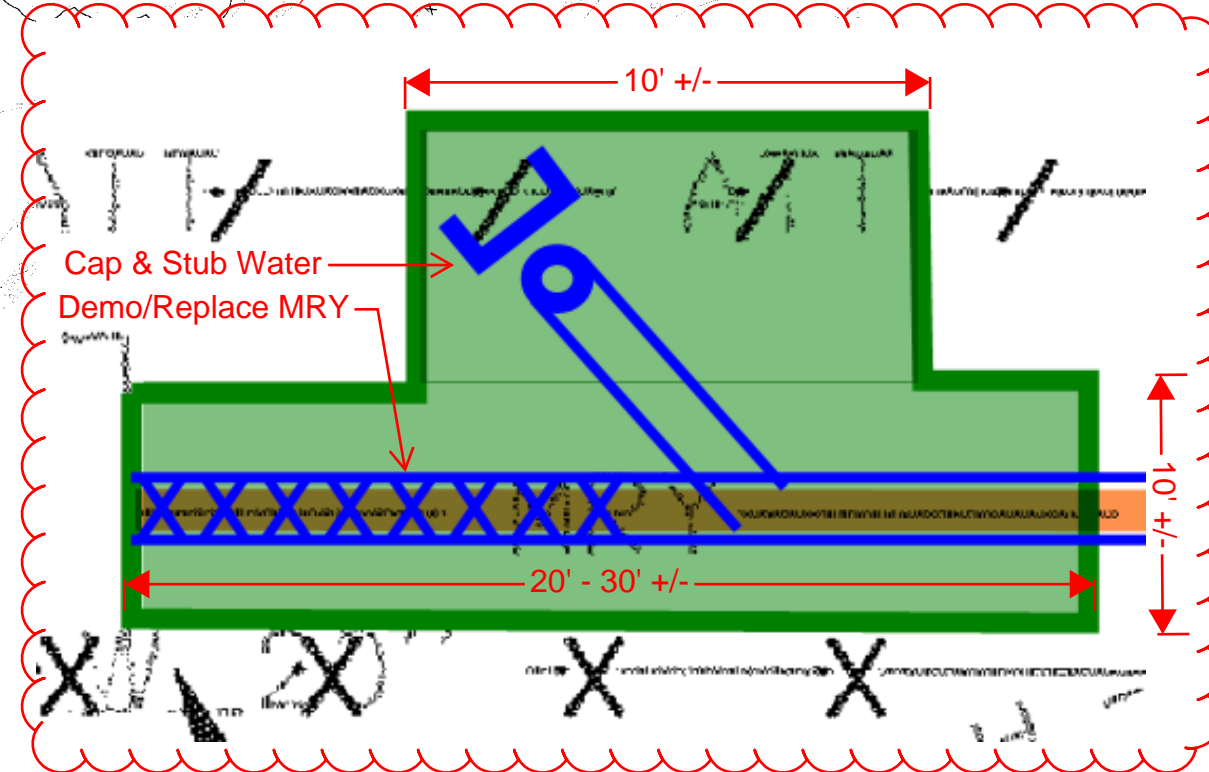


ACTUAL LOCATION OF 20" LOW PRESSURE WATER (DIRECTLY UNDERNEATH MRY DUCT BANK)
MRY DUCT BANK IN SAME LOCATION AS SHOWN ON PLANS



NOTES:

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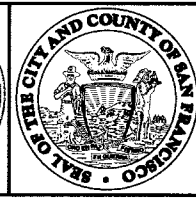
CONFORMED

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DATE	ISSUED FOR BID	DESCRIPTION	BY	CHECKED	APPROVED
01/21/2011					

PB TELAMON
TELAMON ENGINEERING CONSULTANTS INC.

DESIGNED: M. DEFORGE
DRAWN: F. BAYANI
CHECKED: D. ZUURING
REVIEWED: M. CHAN
RECOMMENDED: M. FOWLER
APPROVED: R. EDWARDS
DATE: JAN 21 2011



CITY AND COUNTY OF SAN FRANCISCO
MUNICIPAL TRANSPORTATION AGENCY

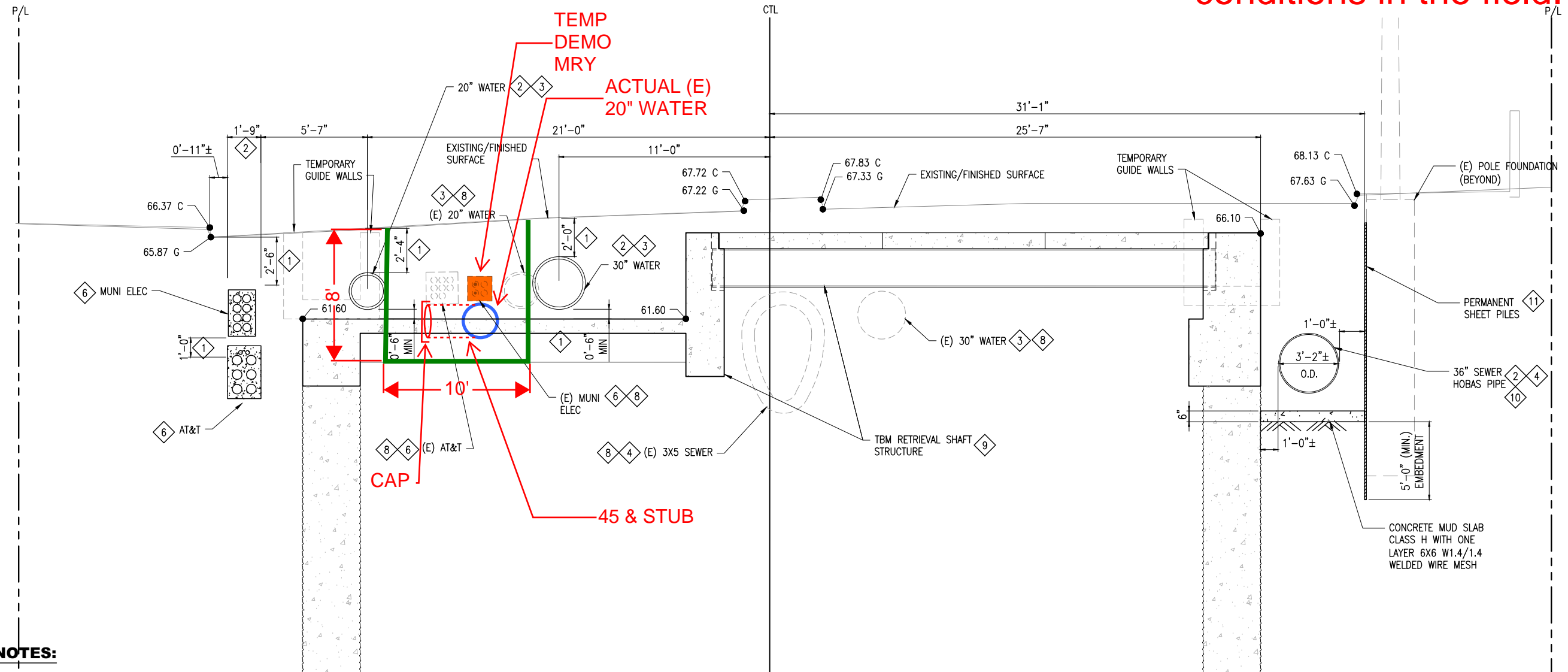
APPROVED: [Signature]
EXECUTIVE DIRECTOR/CEO

THIRD STREET LIGHT RAIL PROGRAM
PHASE 2 - CENTRAL SUBWAY TUNNELS

UTILITY DEMOLITION
TBM RETRIEVAL SHAFT
CTL 80+00 TO 82+25

CONTRACT NO.	1252
SFMTA CONTROL NO.	CL-18035
DRAWING NO.	UD-701
SHEET NO.	28
REVISION	0

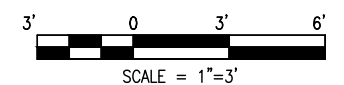
Work proposed by SPM to be done per actual conditions in the field.



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SECTION @ CTL 80+76
LOOKING SOUTH



CONFORMED

FOR ORIGINAL SIGNATURES, SEE CL-18002, REV. 0.

DATE	DESCRIPTION	REV. NO.	BY	CHECKED	APPROVED
05/05/2011	ISSUED FOR ADDENDUM 5	0	DZ	MC	RE
01/21/2011	ISSUED FOR BID	0	-	-	-

PB TELAMON

DESIGNED: M. DEFORGE
 DRAWN: F. BAYANI
 CHECKED: P. WILSON
 REVIEWED: M. CHAN
 RECOMMENDED: M. FOWLER
 APPROVED: R. EDWARDS
 DATE: JAN 21, 2011

REV. 0
SEALED BY
M. CHAN

CITY AND COUNTY OF SAN FRANCISCO
MUNICIPAL TRANSPORTATION AGENCY

APPROVED
CARTER R. ROHAN
EXECUTIVE DIRECTOR/CEO

THIRD STREET LIGHT RAIL PROGRAM
PHASE 2 - CENTRAL SUBWAY
TUNNELS

UTILITY COMPOSITE
TBM RETRIEVAL SHAFT
CROSS SECTION AT CTL 80+76

CONTRACT NO. 1252
SFMTA CONTROL NO. CL-18002
DRAWING NO. UT-721
SHEET NO. 1

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Activity ID	Activity Name	Org Dur	Start	Finish	Total Float	2013	2014	2015	2016	2017	2018	2019	2020
CSP - CURRENT MASTER PROJECT SCHEDULE													
CENTRAL SUBWAY PROJECT													
Program Level Milestones													
MS0019	Baseline Finish Date: 12-26-2018	0			0								
PROCUREMENT PHASE													
Bid/Award CP-1300													
FDS2270	Advertise/Prepare Bid- UMS, CTS, YBM, & STS (Calendar Days)	93	22-Oct-12 A	22-Jan-13	9								
FDS2250	Bid Opening- UMS, CTS, YBM, & STS	1	23-Jan-13	23-Jan-13	7								
FDS2300	Bid Opening Milestone- UMS, CTS, YBM, & STS	0		23-Jan-13	7								
FDS2280	Bid Review- UMS, CTS, YBM, & STS	20	24-Jan-13	21-Feb-13	7								
FDS2240	SFMTA Board Award- UMS, CTS, YBM, & STS	1	05-Mar-13	05-Mar-13	0								
FDS2310	SFMTA Board Award Milestone- UMS, CTS, YBM, & STS	0		05-Mar-13	0								
FDS2260	Approve/Execute/Certify- UMS, CTS, YBM, & STS	40	06-Mar-13	30-Apr-13	0								
FDS2320	NTP CN 1300- UMS, CTS, YBM, & STS	0	01-May-13		0								
CONSTRUCTION PHASE													
Construction CN-1300													
CN- 1300 Milestone													
FDS2330	CN 1300- UMS, CTS, YBM, & STSReq'd Substantial Completion (1736 CD from NTP)	1736	01-May-13	30-Jan-18	0								
Construction UMS Station P-1253													
FDS1700	UMS Start	0	01-May-13		0								
N-UMS1067	UMS Garage Design, Submittals, and Reviews	20	01-May-13	29-May-13	0								
N-UMS10000	UMS Garage Install Temp Shoring, Bracing, and Utilities	40	30-May-13	25-Jul-13	0								
N-UMS10010	UMS Garage Demo and Install Structural Elements to Garage Permanent Operations	175	26-Jul-13	19-May-14	0								
N-UMS9990	UMS Garage Turn Over Garage	0		19-May-14	0								
N-UMS10060	UMS Garage Floor/Column Demo and Column/Roof Support and Seismic Bracing	125	20-May-14	13-Nov-14	0								
N-UMS1013	UMS Excavate/Roof/Pave North Concourse (128+91 to 130+82)	85	14-Nov-14	13-Apr-15	0								
N-UMS1160	UMS Excavate & Install Permanent Struts Platform Box Concourse to Mezzanine Level	115	13-Feb-15	29-Jun-15	0								
UMS1170	UMS Excavate Install Permanent Struts North Concourse	65	14-Apr-15	29-Jun-15	0								
N-UMS1295	UMS Excavate & Install Permanent Struts Mezzanine Level to Platform	115	30-Jun-15	13-Nov-15	0								
UMS1330	UMS Place Invert	62	31-Oct-15	21-Jan-16	0								
UMS1315	UMS Install Platform Level Parameter Walls & Encase Wales	71	22-Jan-16	14-Apr-16	0								
UMS1340	UMS Construct Platform Structure	11	15-Apr-16	27-Apr-16	0								
N-UMS1222	UMS Install Mezzanine Level Deck & Encase Wales	61	28-Apr-16	25-Jul-16	0								
N-UMS10030	UMS Install Mezzanine Level Parameter Walls	15	26-Jul-16	15-Aug-16	0								
UMS1200	UMS Install Intermediate Strut Level Deck & Encase Wales	60	16-Aug-16	08-Nov-16	0								
N-UMS1040	UMS Install Intermediate Strut Level Parameter Walls	20	09-Nov-16	08-Dec-16	0								
UMS1180	UMS Place Concourse Level Deck & Encase Wales	50	09-Dec-16	21-Feb-17	0								
UMS1210	UMS Internal Walls Concourse Level	25	22-Feb-17	22-Mar-17	0								
UMS1230	UMS Rough-In M/E/P/A Concourse Level	45	23-Mar-17	13-May-17	0								
UMS1440	UMS Finish M/E/P/A Concourse and Inter Strut Levels	90	15-May-17	29-Aug-17	0								
UMS1450	UMS Commissioning	45	30-Aug-17	01-Nov-17	0								
UMS1500	UMS P-1253 Commissioning Completion	0		01-Nov-17	0								
Construction STS P-1256													
STS9990	STS CS Commissioning	60	02-Nov-17	30-Jan-18	0								
STS1500	CN 1300 Substantial Completion	0		30-Jan-18	0								
BUF1017	STS Buffer Float- (44)	44	31-Jan-18	03-Apr-18	0								
Project Startup													
STU1010	S&S Certification / Pre-Revenue Activities	115	04-Apr-18	17-Sep-18	0								
BUF0018	Muni Float	68	18-Sep-18	26-Dec-18	0								

Moved UMS Garage from a Moratorium Calendar to working through the holidays. To take off critical path of the Revised Schedule.