File No. 140474

Committee Item No. ______ Board Item No. _______/9

COMMITTEE/BOARD OF SUPERVISORS

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Committee: Budget & Finance Sub-Committee

Date June 4, 2014

Board of Supervisors Meeting

Date June 10, 2014

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FILE NO. 140474

RESOLUTIO, .O.

[Contract Approval - Thales Transport & Security, Inc. - Advanced Train Control System for San Francisco Municipal Transportation Agency Central Subway Project - \$21,363,292]

Resolution authorizing the San Francisco Municipal Transportation Agency (SFMTA) to execute Advanced Train Control System Contract with Thales Transport & Security, Inc., for design and construction of Advanced Train Control System for the Central Subway Project for amount not to exceed \$21,363,292 for a 1,700 day term, to commence upon Board approval.

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

WHEREAS, Operation of the trains in the Central Subway will require an Advanced Train Control System (ATCS) that is interoperable with the ATCS currently in service in the Muni Metro; and

WHEREAS, The ATCS is a safety critical system that provides automatic control of train speed, braking and headway in the Muni Metro tunnels; and

WHEREAS, The ATCS for the Muni Metro was designed and manufactured by Alcatel Transport Automation (U.S.), which was acquired by Thales Transport & Security, Inc. (Thales); and

WHEREAS, The San Francisco Municipal Transportation Agency (SFMTA) has in the past ten years made significant upgrades and improvements to the ATCS to improve the Muni Metro's reliability and operations safety; and

WHEREAS, The SFMTA's total investment in the current ATCS now exceeds \$70 million; and

WHEREAS, The ATCS is proprietary to Thales and cannot practicably be integrated with any other train control system from another manufacturer; and

San Francisco Municipal Transportation Agency BOARD OF SUPERVISORS

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WHEREAS, Implementing a train control system in the Central Subway that is not interoperable with the existing ATCS in the Muni Metro would require either segregating a fleet of vehicles to be used only in the Central Subway or installation of two different systems on all vehicles, both of which would be extremely costly and likely impair transit service; and

WHEREAS, Based on the above findings, the Director of Transportation issued a Memorandum dated February 16, 2012, authorizing a sole source procurement; and

WHEREAS, Following the authorization for sole source procurement, SFMTA requested Thales to provide a proposal for ATCS equipment, design review, system integration, safety certification consulting, and other goods and services necessary to implement an ATCS for the Central Subway; and

WHEREAS, Staff negotiated the final scope of services and price for the ATCS, based on the proposal and the independent cost estimates developed by the Agency and engineering consultants with expertise in ATCS design; and

WHEREAS, On February 15, 2013, SFMTA received a proposal from Thales for the required scope of services and equipment with a price of \$32,017,518; and

WHEREAS, Staff engaged in the lengthy negotiations with Thales which reduced the total price to \$24,788,716 with a term not to exceed 1,700 calendar days, and clarified the scope of the project; and

WHEREAS, The Engineer's Estimate for Contract No. 1266 ranged between \$28,000,000 to \$35,000,000; and

WHEREAS, The negotiated contract amount of \$24,788,716 was significantly less than the Engineer's Estimates of ATCS costs; and

WHEREAS, Contract Nos. 1266-1 and 1266-2 will be assigned to Tutor Perini Corporation (Tutor), the contractor responsible for the construction of the Central Subway stations, trackways, control systems and system integration, with the result that Thales will

San Francisco Municipal Transportation Agency BOARD OF SUPERVISORS

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become a subcontractor to Tutor, and Tutor will be ultimately responsible for the successful installation and operation of the ATCS; and

WHEREAS, Thales will provide proprietary equipment required for the ATCS under Contract 1266-1, which equipment will be installed by Tutor, with installation oversight and testing provided by Thales; and

WHEREAS, Thales will provide proprietary equipment required for the ATCS under Contract 1266-1, which equipment will be installed by Tutor, with installation oversight and testing provided by Thales; and

WHEREAS, Thales will provide proprietary software and systems integration assistance, system testing, and system safety certification support for the ATCS under Contract 1266-2; and

WHEREAS, Civil Service Commission approval for contracts resulting from Request of Proposal Contract 1266 was obtained by the SFMTA on December 2, 2013, under Civil Service Approval No. 4053-13/14; and

WHEREAS, The SFMTA split the procurement for the proprietary ATCS equipment and ATCS design and services into two separate agreements, Contract 1266-1 and 1266-2, respectively; and

WHEREAS, The funding for work under Contracts Nos. 1266-1 and 1266-2 is to be furnished from federal, state and local sources; and

WHEREAS, The SFMTA Board of Directors adopted Resolution No. 13-260 on December 3, 2013, authorizing the Director of Transportation or his designee to execute Contract 1266-1, Third Street Light Rail Program, Phase 2 Central Subway – Train Control System with Thales Transport & Security, Inc. for procurement and provision of proprietary equipment for an Advanced Train Control System for a total amount not to exceed \$3,425,424 and a term not to exceed 1,000 calendar days; and

San Francisco Municipal Transportation Agency BOARD OF SUPERVISORS WHEREAS, The SFMTA Board of Directors adopted Resolution No. 13-260 on December 3, 2013, authorizing the Director of Transportation or his designee to execute Contract 1266-2, Third Street Light Rail Program, Phase 2 Central Subway - Train Control System to Thales Transport & Security, Inc. as a sole source contract for Advanced Train Control System for proprietary software and systems integration assistance, system testing, and system safety certification support, system warranty, and related professional services necessary to implement an Advanced Train Control System for a total amount not to exceed \$21,363,292 and a term not to exceed 1,700 days, contingent upon approval of the Board of Supervisors; now, therefore, be it

RESOLVED, That the Board of Supervisors authorizes the SFMTA to execute Contract 1266-2, Advanced Train Control System for SFMTA Central Subway Project, with Thales Transport & Security, Inc. for an amount not to exceed \$21,363,292 and a term not to exceed 1,700 days; and, be it

FURTHER RESOLVED, That within thirty (30) days of the contract being fully executed by all parties the SFMTA shall provide the final contract to the Clerk of the Board for inclusion into the official file.

San Francisco Municipal Transportation Agency BOARD OF SUPERVISORS

JUNE 4, 2014

ltem 4 File 14-0474 Department: Municipal Transportation Agency (MTA)

EXECUTIVE SUMMARY

Legislative Objectives

The proposed resolution approves a sole-source contract between the San Francisco Municipal Transportation Agency (SFMTA) and Thales Transport & Security, Inc. (Thales) for design review, software, and implementation and testing services for the Advanced Train Control System (ATCS) for the Central Subway Project. The contract is for a total amount not to exceed \$21,363,292 and a term not to exceed 1,700 days or approximately 4 years and 8 months from approximately June 2014 through January 2019.

Key Points

- The second phase of the SFMTA's Third Street Light Rail Project is the Central Subway Project, which extends the T Third Line 1.5 miles, from the 4th Street Caltrain station to Chinatown.
- The ATCS is a train control system to monitor and control train movement, including train spacing, train location, train stop lengths, etc. The software and equipment for the Muni Metro ATCS are proprietary to Thales. To ensure that the Central Subway ATCS system is interoperable with the system-wide Muni Metro ATCS, the Director of Transportation authorized a sole source contract with Thales, in accordance with Charter Section 8A.102 (b) 2, which gives SFMTA exclusive authority over purchasing by the Agency.
- While Thales will provide the professional services to support the installation of the ATCS, the physical installation of the ATCS is assigned to the Central Subway construction contractor, Tutor Perini Corporation (Tutor), responsible for the construction of the Central Subway stations, trackways, control systems, etc. Thales will become a subcontractor to Tutor to support the physical installation of the ATCS.

Fiscal Impact

- The proposed contract not-to-exceed amount is \$21,363,292 for design review, software, and implementation and testing services for the ATCS for the Central Subway Project. The SFMTA has a separate equipment contract with Thales for procurement of proprietary equipment for a not-to-exceed amount of \$3,425,424, which is not subject to Board of Supervisors approval. The combined amount of the two contracts is \$24,788,716, which is less than the engineering
- Estimate of \$28,344,570 prepared by HNTB Corporation, the engineering firm contracted by SFMTA for the Central Subway Project.
- Funds of \$1,578,300,000 for the Central Subway Project, including \$24,788,716 for the ATCS, come from federal, state and local sources. SFMTA has received \$785,401,000 of the \$1,578,300,000 as of May 2014, or approximately 50 percent.

Recommendation

Approve the proposed resolution.

SAN FRANCISCO BOARD OF SUPERVISORS

JUNE 4, 2014

MANDATE STATEMENT / BACKGROUND

Mandate Statement

In accordance with Charter Section 9.118, any agreement (a) for more than \$10,000,000, (b) that extends for longer than ten years, or (c) with an amendment of more than \$500,000, is subject to Board of Supervisors approval.

Charter Section 8A.102 (b) (1) gives the San Francisco Municipal Transportation Agency (SFMTA) exclusive authority pertaining to SFMTA contracts, leases, and purchases.

Background

The first phase of the SFMTA's Third Street Light Rail Transit Project was the construction of a 5.1 mile light-rail line along the 3rd Street corridor. The first phase was completed and began revenue service in April 2007. The Central Subway Project is the second phase of the SFMTA's Third Street Light Rail Transit Project. The Central Subway Project will extend the T Third Line 1.5 miles, from the 4th Street Caltrain station to Chinatown. The Central Subway Project commenced in 2003 with conceptual and preliminary engineering, and is scheduled to be completed and begin revenue service in 2019.

The SFMTA's total budget for the Third Street Light Rail Transit Project, consisting of Phases 1 and 2, as shown in Table 1 below, is \$2,226,760,000, of which \$1,578,300,000 is for the Central Subway Project.

Funding Source	Phase 1 (Third Street Corridor)	Percentage of Phase 1 Funds	Phase 2 (Central Subway)	Percentage of Phase 2 Funds	Total	Percentage of Total Project Funds
Federal	\$ 123,380,000	19.0%	\$ 983,225,000	62.3%	\$ 1,106,605,000	49.7%
State	\$ 160,700,000	24.8%	\$ 471,100,000	29.8%	\$ 631,800,000	28.4%
Local	\$ 364,380,000	56.2%	\$ 123,975,000	7.9%	\$ 488,355,000	21.9%
Total	\$ 648,460,000	100.0%	\$ 1,578,300,000	100.0%	\$ 2,226,760,000	100.0%

Table 1: SFMTA Third Street Light Rail Transit Project Budget Funding Sources

Source: SFMTA Central Subway Project site, www.centralsubwaysf.com

Operation of all Muni Metro trains requires an Advanced Train Control System (ATCS). According to Mr. Albert Hoe, Deputy Program Manager for the SFMTA's Central Subway Project,

"Advanced Train Control System (ATCS) is a train control system to monitor and control train movement within the Muni Metro and Central Subway. This system will maintain train spacing based on criteria and SFMTA Standard Operating Procedures (SOP) to ensure safety movement between trains. ATCS will also determine location where trains will stop in the stations and how long the trains will dwell for passengers. ATCS will also coordinate with other systems for train schedule, arrival, announcement and others. By

BUDGET AND LEGISLATIVE ANALYST

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definition, ATCS can control all functions of the train operation within the Muni Metro and Central Subway and coordinate the movement with Central Control."

The San Francisco Muni Metro ATCS is proprietary to the firm of Thales Transport & Security, Inc. (Thales). According to a memorandum dated September 8, 2009 from the SFMTA to the Board of Supervisors Budget Analyst, the contract for the SFMTA ATCS system, excluding the Central Subway project, was competitively bid in 1992. The City contracted with Alcatel Transport Automation, which was then acquired by Thales, to procure the ATCS, and "the technical content [of the ATCS] remains the proprietary, trade secret property of the supplier."

The Central Subway project requires an ATCS system that is interoperable with the system-wide ATCS currently in service for the entire Muni Metro System. Therefore, the SFMTA Director of Transportation issued a Memorandum dated February 16, 2012 authorizing the award of a sole source contract for the procurement of the ATCS for the Central Subway Project to Thales to ensure that the ATCS System for the Central Subway is interoperable with the existing SFMTA ATCS. As reported by the SFMTA, implementing a train control system in the Central Subway that is not interoperable with the existing SFMTA ATCS in the Muni Metro would require either: (1) segregating a fleet of vehicles to be used only in the Central Subway, or (2) installation of two different systems on all vehicles. Both options would be extremely costly, and they would likely impair overall transit service. Sole source procurement was determined by the SFMTA to be the most cost-effective and reliable means of acquiring the ATCS for the Central Subway.

DETAILS OF PROPOSED LEGISLATION

The proposed resolution would approve an award of a sole source contract between SFMTA and Thales for design review, software, and implementation and testing services for the ATCS for the Central Subway Project. The contract is for a total amount not to exceed \$21,363,292 and a term not to exceed 1,700 days or approximately 4 years and 8 months from approximately June 2014 through January 2019.

Under the proposed contract, Thales is responsible for the following:

- 1. Review of existing SFMTA ATCS designs and specifications; confer with project design and engineering consultants and recommend any necessary changes to the existing ATCS designs; review and approve final ATCS designs;
- 2. Supply of all proprietary equipment (including that which is provided under the equipment contract, discussed below) and associated firmware and software necessary for the installation, testing, and operation of the ATCS;
- 3. Incorporate and verify all design input data;
- 4. Prepare ATCS infrastructure build specifications, and ATCS functional and performance requirements;
- 5. Prepare all interface requirements specifications involving the ATCS;
- 6. Prepare the ATCS build designs;
- 7. Prepare all documentation needed to support the continuing operation and maintenance of the ATCS, including training SFMTA train operators in its use;
- 8. Perform hazard analyses and provide mitigation measures and corrective actions;

- 9. Perform all necessary Reliability, Availability, Maintainability and Safety (RAMS) analyses and provide compliance reports with supporting data;
- 10. Identify spare and replacement parts including maintenance schedules;
- 11. Prepare the systems integration and ATCS Test Plans and all verification and validation procedures;
- 12. Submit Pre-Revenue and Turn Over Plan to SFMTA;
- 13. Coordination with SFMTA, City and oversight groups;
- 14. Provide management, design review, and construction testing and oversight of:
 - a. ATCS Design;
 - b. Subcontractors, suppliers, vendors, installers;
 - c. ATCS physical and operational interfaces;
 - d. Transport and local storage of proprietary equipment;
 - e. Installation, configuration, integration, testing, commissioning, and user training of the ATCS and its proprietary equipment and software;
 - f. Documentation of the ATCS as finally tested and approved;
 - g. Training and maintaining qualification evaluations;
 - h. All necessary oversight of work by the construction contractor that affects the ATCS and the certification of ATCS performance; and
 - i. Provide warranty services for three years following substantial completion.

While Thales will provide the professional services to support the installation of the SFMTA ATCS under the proposed contract for the Central Subway project, a separate contract for the physical installation of the ATCS was awarded through a competitive process to Tutor Perini Corporation (Tutor), the contractor responsible for the construction of the Central Subway stations, trackways, control systems, and system integration. If the proposed contract between the SFMTA and Thales is approved for the ATCS for the Central Subway project, Thales will become a subcontractor to Tutor to support the physical installation of the ATCS. Tutor will ultimately be responsible for the successful installation and operation of the SFMTA ATCS.

According to Mr. Hoe, the SFMTA Board of Directors recommended the award of the proposed contract to Thales in December 2013, before it was confirmed that Thales had received the required insurance to cover the services provided. While the contract was signed in December 2013, the SFMTA did not receive confirmation until March 2014 that Thales acquired insurance to cover the City and County of San Francisco.

FISCAL IMPACT

The proposed not-to-exceed contract amount is \$21,363,292, which includes the costs for design review, software, and implementation and testing services for the ATCS for the Central Subway Project. The SFMTA has a separate equipment contract with Thales for procurement of proprietary equipment for a not-to-exceed amount of \$3,425,424, which is not subject to Board of Supervisors approval. The combined amount of the two contracts is \$24,788,716, which is less than the engineering estimate of \$28,344,570 prepared by HNTB Corporation, the engineering firm retained by SFMTA for the Central Subway Project.

The budget of \$24,788,716 for the implementation of the ATCS is shown in Table 2 below.

SAN FRANCISCO BOARD OF SUPERVISORS

BUDGET AND LEGISLATIVE ANALYST

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Contract Milestone	Budget
Mobilization	\$ 495,774
Initial Submittals	\$ 778,482
Preliminary Design	\$ 2,075,952
Intermediate Design	\$ 3,113,928
Final Design	\$ 2,594,940
Factory Acceptance Tests Complete	\$ 2,366,271
Hardware Procurement	\$ 2,912,783
Deliver Hardware	\$ 3,425,424
Installation, Software Testing	\$ 2,580,868
Start up and Testing	\$ 2,220,059
Substantial Completion	\$ 1,235,686
Final Acceptance	\$ 988,549
Total	\$ 24,788,716

Table 2: Proposed Budget for Two ATCS Contracts, Including \$21,363,292 Contract, for ATCS Design, Implementation and Equipment

Source: Contract between SFMTA and Thales

The funding sources of \$1,578,300,000 (see Table 1 above) for the Central Subway Project, including the two contracts with Thales for the ATCS, comes from federal, state and local sources. As of the writing of this report, SFMTA has received \$785,401,000 or 49.8 percent of the total estimated costs of \$1,578,300,000, as shown in Table 3 below.

SAN FRANCISCO BOARD OF SUPERVISORS

	Actual	Percent
\$ 942,200,000	\$ 319,182,000	33.9%
41,025,000	41,025,000	100.0%
\$ 983,225,000	\$ 360,207,000	36.6%
\$ 14,000,000	\$ 14,000,000	100.0%
88,000,000	- -	0.0%
	· · ·	
307,792,000	225,912,000	73.4%
61,308,000	61,308,000	100.0%
\$ 471,100,000	\$ 301,220,000	63.9%
	•	
\$ 123,975,000	\$ 123,975,000	100.0%
\$ 123,975,000	\$ 123,975,000	100.0%
\$ 1,578,300,000	\$ 785,401,000 ¹	49.8%
-	41,025,000 \$ 983,225,000 \$ 14,000,000 88,000,000 307,792,000 61,308,000 \$ 471,100,000 \$ 123,975,000 \$ 123,975,000	41,025,000 41,025,000 \$ 983,225,000 \$ 360,207,000 \$ 14,000,000 \$ 14,000,000 \$ 14,000,000 \$ 14,000,000 88,000,000 - 307,792,000 225,912,000 61,308,000 61,308,000 \$ 471,100,000 \$ 301,220,000 \$ 123,975,000 \$ 123,975,000 \$ 123,975,000 \$ 123,975,000

Table 3: Breakdown of Funding for Central Subway Project

Source: SFMTA

RECOMMENDATION

Approve the proposed resolution.

SAN FRANCISCO BOARD OF SUPERVISORS

BUDGET AND LEGISLATIVE ANALYST

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¹ The difference between the stated total and the sum of listed values are due to rounding.



SFMTA Municipal Transportation Agency Edwin M. Lee, Mayor

Tom Nolan, *Chairman* Malcolm Heinicke, *Director* Joél Ramos, *Director* Cheryl Brinkman, Vice-Chairman Jarry Lee, *Director* Cristina Rubke, *Director*

Edward D. Reiskin, Director of Transportation

May 5, 2014

Angela Calvillo, Clerk of the Board San Francisco Board of Supervisors 1 Carlton B. Goodlett Place, Room 244 San Francisco, California 94102

Subject: Agreement for Advanced Train Control System for the SFMTA Central Subway Project between the City and County of San Francisco and Thales Transport & Security, Inc., Contract 1266-2

Dear Ms. Calvillo:

An original and two copies of a proposed resolution are being provided for consideration by the Board of Supervisors. The resolution requests approval of the agreement referenced above. We respectfully request that this item be scheduled in the appropriate committee. The San Francisco Municipal Transportation Agency (SFMTA) Central Subway budget has allocated the award amount for the Advanced Train Control System for Contract 1266-2.

Enclosed are the following:

- 1. Proposed Board of Supervisors Resolution
- 2. Agreement for Advanced Train Control System for SFMTA Central Subway Project between the City and County of San Francisco and Thales Transport & Security, Inc.
- 3. SFMTA Board of Directors/Parking Authority Commission Resolution approving Contracts 1266-1 and 1266-2, adopted December 3, 2014
- 4. SFEC 126 Forms
- 5. Briefing letter providing background and other information about the enclosed Contract 1266-2

Please contact Janet Martinsen of my staff at 415.701.4693 if you have any questions regarding this matter.

Sincerely

Edward D. Reiskin Director of Transportation

Enclosures

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www.sfmta.com



SFMTA Municipal Transportation Agency Edwin M. Lee, Mayor

Tom Nolan, *Chairman* Malcolm Heinicke, *Director* Joél Ramos, *Director* Cheryl Brinkman, Vice-Chairman Jerry Lee, *Director* Cristina Rubke, *Director*

Edward D. Reiskin, Director of Transportation

May 5, 2014

The Honorable Members of the Board of Supervisors City and County of San Francisco 1 Dr. Carlton Goodlett Place, Room 244 San Francisco, CA 94102

SUBJECT: Agreement for Advanced Train Control System for SFMTA Central Subway Project between the City and County of San Francisco and Thales Transport & Security, Inc.

Honorable Members of the Board of Supervisors:

The San Francisco Municipal Transportation Agency (SFMTA or "Agency") requests that the San Francisco Board of Supervisors authorize the SFMTA to enter into an agreement with Thales Transport & Security, Inc. for design and implementation of the Advanced Train Control System (ATCS).

The proposed Agreement for ATCS on the SFMTA Central Subway Project (the "Agreement") is to design and implement an ATCS that will be interoperable with the existing ATCS that controls trains in the Muni Metro Subway. The SFMTA Board of Directors and Parking Authority Commission approved Resolution 13-260 on December 3, 2013 recommending this matter to the Board of Supervisors for approval.

Background

The SFMTA's Third Street Light Rail Transit Project is the most significant capital investment in generations for the seventh largest transit system in the nation. Phase 1 of the 6.9-mile, two-phase project began revenue service in April 2007, restoring light rail service to the heavily transit-dependent Third Street corridor in eastern San Francisco for the first time in 50 years.

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

The twin bore tunnels for the Central Subway are being constructed by Barnard Impregilo Healey, a joint venture, under Contract 1252, which was awarded by the SFMTA Board of Directors on June 28, 2011. The stations, trackway and control systems to be constructed by Tutor Perini under Contract 1300, was awarded by the SFMTA Board of Directors on May 21, 2013.

www.sfmta.com

Memo to the Board of Supervisors May 5, 2014 Page 2 of 4

Thales will provide ATCS design and design review, software configuration, installation inspection, safety certification and system testing services, as well as ATCS on-board and wayside equipment and software. Both contracts will be assigned to Tutor Perini Corp. (Tutor), the contractor for construction of the Central Subway stations, trackway and control systems (under SFMTA Contract 1300). Tutor will construct the ATCS infrastructure and install the ATCS equipment. Thales will inspect that work, configure and test the ATCS, and assist the SFMTA in obtaining ATCS safety certification from the California Public Utilities Commission. Contract Nos. 1266-1 and 1266-2 will be assigned to Tutor through a modification to Contract 1300, so that Tutor will be responsible for the final operation of installed equipment and software, and for the integration of the new ATCS with other control and switching systems. The budget for Contract 1300 includes an allowance in the amount of \$25 million to procure, install, test and implement the ATCS. The funds for that allowance will pay for the equipment and services to be obtained under Contract Nos. 1266-1 and 1266-2.

Agreement

Negotiations with Thales have been completed and the SFMTA Board of Directors and Parking Authority Commission approved a resolution on December 3, 2013 recommending this matter to the Board of Supervisors for approval. The major provisions and scope of services of the proposed Agreement, which is attached, follow.

Purpose and Scope of Contract

The scope of work of SFMTA Contract Nos. 1266-1 and 1266-2, Third Street Light Rail Program, Phase 2 Central Subway – Advanced Train Control System includes:

Contract 1266-1

- 1. Review of Existing ATCS designs and specifications; confer with Project design and engineering consultants and recommend any necessary changes to the existing ATCS designs; review and approve final ATCS designs;
- 2. Supply of Proprietary Equipment.;
- 3. Equipment and system warranty and related services for three years following Substantial Completion

Contract 1266-2

- 1. Review ATCS design, incorporate and verify of all CSP provided design input data;
- 2. Prepare ATCS infrastructure build specifications, and ATCS functional and performance requirements;
- 3. Prepare all Interface Requirements Specifications involving the ATCS;
- 4. Prepare the ATCS build designs;
- 5. Prepare all documentation needed to support the continuing operation and maintenance of the ATCS, including training SFMTA operators in its use;

Memo to the Board of Supervisors May 5, 2014 Page 3 of 4

- 6. Perform hazard analyses and provide mitigation measures and corrective actions;
- 7. Perform all necessary Reliability, Availability, Maintainability and Safety (RAMS) analyses and provide compliance reports with supporting data;
- 8. Identify spare and replacement parts and develop maintenance schedules;
- 9. Prepare the Systems Integration and ATCS Test Plans and all verification and validation procedures;
- 10. Submit Pre-Revenue Testing and Turn Over Plan to SFMTA;
- 11. Coordinate with SFMTA, City and Oversight groups (including the California PUC) for system implementation, roll-out, testing, training and safety certification;
- 12. Provide management, design review, and construction testing and oversight of:
 - a. ATCS Design;
 - b. Subcontractors, suppliers, vendors, installers;
 - c. ATCS physical and operational interfaces;
 - d. Procurement, transport and storage of Proprietary Equipment;
 - e. Installation, configuration, integration, testing, commissioning, and user training of the ATCS and its Proprietary Equipment and Software;
 - f. Documentation (i.e., as-built engineering documents, configuration and testing records) of the ATCS as finally tested and approved;
 - g. Training and maintainer qualification evaluation (new design plus any changes);
 - h. Provide necessary oversight, inspection and assistance to Construction Contractor to confirm that the installation of the ATCS meets system specifications and requirements, including continuing warranty and other support as required during revenue operations.

The total price of \$24,788,716 was negotiated based on adjustment of the scope of services.

Term

The Agreement duration is not to exceed 1700 days which is the same as the duration for Contract 1300.

Small Business Enterprise and Workforce Development Opportunities

The Contract Compliance Office did not establish a small business enterprise (SBE) participation goal for this work. There are no subcontracting opportunities in Thales' work, as that work is proprietary and can only be performed by Thales. Tutor Perini is subject to a 20 percent SBE goal under Contract 1300.

Memo to the Board of Supervisors May 5, 2014 Page 4 of 4

Alternatives Considered

The only alternative to this sole source contract would be to install a different ATCS in the Central Subway, which would not be interoperable with the existing ATCS in the Muni Metro System. That would require either segregation of the light rail vehicles (LRVs) used on the Central Subway or installation of two different ATCS systems on the entire fleet of LRVs. Installation of dual systems on all LRVs would be extremely costly, require cross training operators and maintenance staff, and complicate operations (with potential service reductions) significantly increasing maintenance and operating costs.

Funding Impact

The \$1.58 billion Federal Transportation Agency New Starts Project funding for the Central Subway Project includes this contract amount, and is funded by a combination of federal, state and local monies. The cost of this contract award is within the Central Subway Program budget and available funding.

Other Approvals

Civil Service Commission approved both contracts on December 2, 2013 under Civil Service Approval No. 4053-13/14.

SFMTA Board of Directors and Parking Authority Commission approved Resolution No. 13-260 on December 3, 2013 and recommended this matter to the Board of Supervisors for approval.

The Director of Transportation will be authorized to make any necessary modifications, changes or additions to these documents as long as they are within the parameters of the attached resolution.

Recommendation

The SFMTA requests that the San Francisco Board of Supervisors authorize SFMTA to enter into an agreement with Thales Transport & Security, Inc. for design and implementation of the ATCS for the SFMTA Central Subway Project.

Thank you for your consideration of this proposed agreement and for your continued support of the SFMTA. Should you have any questions or require more information, please do not hesitate to contact me.

Sincerely,

Edward D. Reiskin Director of Transportation

SAN FRANCISCO MUNICIPAL TRANSPORTATION AGENCY BOARD OF DIRECTORS

RESOLUTION No. 13-260

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

WHEREAS, Operation of the trains in the Central Subway will require an Advanced Train Control System (ATCS) that is interoperable with the ATCS currently in service in the Muni Metro; and

WHEREAS, The ATCS for the Muni Metro was designed and manufactured by Alcatel Transport Automation (U.S.), which was acquired by Thales Transport & Security, Inc. (Thales); and

WHEREAS, The SFMTA has in past ten years made significant upgrades and improvements to the ATCS to improve the Muni Metro's reliability and operations safety; and

WHEREAS, The SFMTA's total investment in the current ATCS now exceeds \$70 million; and

WHEREAS, The ATCS is a safety critical system proprietary to Thales that cannot practicably be integrated with any other train control system from another manufacturer; and

WHEREAS, Implementing a train control system in the Central Subway that is not interoperable with the existing ATCS in the Muni Metro would require either segregating a fleet of vehicles to be used only in the Central Subway or installation of two different systems on all vehicles, both of which would be extremely costly and likely impair transit service; and

WHEREAS, Based on the above findings, the Director of Transportation issued a Memorandum dated February 16, 2012 authorizing a sole source procurement; and

WHEREAS, Following the authorization for sole source procurement, SFMTA requested Thales to provide a proposal for ATCS equipment, design review, system integration, safety certification consulting, and other goods and services necessary to implement an ATCS for the Central Subway; and

WHEREAS, Staff negotiated the final scope of services and price for the ATCS, based on the proposal and the independent cost estimates developed by the Agency and engineering consultants with expertise in ATCS design; and

WHEREAS, On February 15, 2013 SFMTA received a proposal from Thales for the required scope of services and equipment with a price of \$32,017,518; and

WHEREAS, Staff engaged in the lengthy negotiations with Thales which reduced the total price to \$24,788,716 with a term not to exceed 1700 calendar days, and clarified the scope of the project; and

WHEREAS, The Engineer's Estimate for Contract No. 1266 ranged between \$28 Million to \$35 Million; and,

WHEREAS, The negotiated contract amount of \$24,788,716 was less than the Engineer's Estimate; and

WHEREAS, Contract Nos. 1266-1 and 1266-2 will be assigned to Tutor Perini Corporation (Tutor), the contractor responsible for the construction of the Central Subway stations, trackways, control systems and system integration, with the result that Thales will become a subcontractor to Tutor, and Tutor will be ultimately responsible for the successful installation and operation of the train control system; and

WHEREAS, Thales will provide proprietary equipment required for the ATCS under Contract 1266-1, which equipment will be installed by Tutor, with installation oversight and testing provided by Thales; and

WHEREAS, Thales will provide proprietary software and systems integration assistance, system testing, and system safety certification support for the ATCS under Contract 1266-2; and

WHEREAS, Execution of both Contract Nos. 1266-1 and 1266-2 is contingent upon an approval by the Civil Service Commission; and

WHEREAS, Execution of Contract No. 1266-2 is contingent upon approval of the Board of Supervisors; and,

WHEREAS, The funding for work under Contracts Nos. 1266-1 and 1266-2 is to be furnished from federal, state and local sources; now, therefore, be it

RESOLVED, That the SFMTA Board of Directors awards Contract No. 1266-1, Third Street Light Rail Program, Phase 2 Central Subway – Train Control System to Thales Transport & Security, Inc. for procurement and provision of proprietary equipment for an Advanced Train Control System for a total amount not to exceed \$3,425,424 and a term not to exceed 1000 calendar days, and be it

FURTHER RESOLVED, That the SFMTA Board of Directors awards Contract No. 1266-2, Third Street Light Rail Program, Phase 2 Central Subway – Train Control System to Thales Transport & Security, Inc. for proprietary software and systems integration assistance, system testing, and system safety certification support, system warranty, and related professional services necessary to implement an Advanced Train Control System for a total amount not to exceed \$21,363,292and a term not to exceed 1700 days; and be it

FURTHER RESOLVED, That the Board of Directors authorizes the Director of Transportation to make such clarifications to and modifications of the contracts here presented (including without limitation, the exhibits) that the Director of Transportation determines, in consultation with the City Attorney, are in the best interests of the City, do not increase the obligations or liabilities of the City, are necessary or advisable to effectuate the purposes of the Agreement or this Resolution, and are in compliance with all applicable laws, including the City's Charter; and be it

FURTHER RESOLVED, That the San Francisco Municipal Transportation Agency Board of Directors requests that the Board of Supervisors approve Contract No. 1266-2, Third Street Light Rail Program, Phase 2 Central Subway –Advanced Train Control System to Thales Transport & Security, Inc. as a sole source contract for Advanced Train Control System for proprietary software and systems integration assistance, system testing, and system safety certification support, system warranty, and related professional services necessary to implement an Advanced Train Control System for a total amount not to exceed \$21,363,292and a term not to exceed 1700 days;.

I certify that the foregoing resolution was adopted by the San Francisco Municipal Transportation Agency Board of Directors at its meeting of December 3, 2013.

R. Boomer

Secretary to the Board of Directors San Francisco Municipal Transportation Agency



Agreement between the City and County of San Francisco

and

Thales Transport & Security, Inc.

for Procurement of Proprietary Equipment

for the Advanced Train Control System

for the San Francisco Municipal Transportation Agency

Central Subway Project

(Third Street Light Rail Project, Phase 2)

Contract No. 1266-1

December 3, 2013

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Agreement between the City and County of San Francisco and

Thales Transport & Security, Inc. for Procurement of Proprietary Equipment for the Advanced Train Control System for the San Francisco Municipal Transportation Agency Central Subway Project (Third Street Light Rail Project, Phase 2)

Contract No. 1266-1

This Agreement between the City and County of San Francisco and Thales Transport & Security, Inc. for Procurement of Proprietary Equipment for the Advanced Train Control System, Central Subway Project (Third Street Light Rail Project, Phase 2) (hereinafter "Equipment Contract") is made between the City and County of San Francisco, acting by and through its Municipal Transportation Agency, a municipal corporation organized and existing under the laws of the State of California, whose principal place of business is at 1 South Van Ness Avenue, San Francisco, California 94102, U.S.A. (hereinafter referred to as "SFMTA" or "City"); and Thales Transport & Security, Inc., a corporation organized and existing under the laws of the State of Delaware, whose principal place of business is at 5700 Corporate Drive, Suite 750, Pittsburgh, PA 15237, U.S.A., (hereinafter referred to as "Thales" or "Contractor").

This Equipment Contract is dated for convenience as December 3, 2013.

When appropriate herein, SFMTA and Thales are individually hereinafter referred to as "Party" and collectively referred to as "Parties".

1. RECITALS.

1.1. Under the Central Subway Project, which is Phase 2 of the Third Street Light Rail Project, the SFMTA is constructing a new subway line in San Francisco, which runs approximately 1.6 miles from 4th and Brannan Streets, north under Fourth Street to Stockton Street, and north under Stockton Street into Chinatown.

1.2. Under Agreement CS-155-3, HNTB-B&C Joint Venture designed the control, signaling and trackway systems for the Central Subway, which will be constructed and installed by Tutor Perini, under SFMTA Contract 1300 (the Construction Contract).

1.3. The Advanced Train Control System (ATCS), further defined in Section 2.5, is a specialized and proprietary system that was supplied to the SFMTA by Thales (formerly Alcatel Transport Automation (U.S.) Inc.) under San Francisco Municipal Railway contract MR-1034R, dated August 10, 1992.

1.4. The ATCS must operate as a single integrated system between the new Central Subway and the Existing ATCS that services the SFMTA's subway operations in the Market Street tunnels. Due to the proprietary nature of the Existing ATCS, no vendor other than Thales can provide the SFMTA necessary

ATCS design review and implementation services for the Central Subway, and this Equipment Contract is necessarily therefore a sole source contract.

1.5. The SFMTA has determined that to avoid dual equipping its rail vehicles with multiple control systems or segregating the vehicles to be used on the Central Subway line, the Existing ATCS will be expanded to cover the Central Subway operations.

1.6. Thales desires to supply to the SFMTA and the SFMTA desires to procure from Thales such system engineering, design review, proprietary ATCS elements, and oversight and inspection services for ATCS installation and integration, implementation and testing consulting services and related professional services described in this Equipment Contract and in the Implementation Contract and as may be otherwise be necessary to complete the design, installation, implementation, testing and certification, and warranty services of the ATCS

1.7. To avoid risks and delays to the Central Subway Project Schedule and risks and costs arising from delays to the construction and installation of the Work and implementation and testing of the ATCS, the SFMTA desires to procure under this Equipment Contract certain Proprietary Equipment that are Long Lead Items in advance of completion of negotiations for the services Thales will provide under the Implementation Contract.

1.8. The SFMTA will procure ATCS engineering and design review, installation oversight, testing and safety certification consulting and related and ancillary services from Thales under the ATCS Implementation Contract, a separate agreement to be negotiated between the SFMTA and Thales.

1.9. The Proprietary Equipment procured under this agreement shall be installed by the Construction Contractor under the Construction Contract. The Proprietary Equipment and any other Work performed under this Equipment Contract is subject to the inspection, testing, warranty and reliability requirements set out in the Implementation Contract and the Specifications referenced therein.

1.10. The parties intend that both the Equipment Contract and the Implementation Contract will be assigned to the Construction Contractor, Tutor Perini to be subcontracts under the Construction Contract CS-1300.

Now, therefore, in consideration of the facts represented above, the premises and the mutual undertakings of the Parties herein contained, the Parties agree as follows:

2. DEFINITIONS.

For the purposes of this Equipment Contract, the following words and expressions shall have the meanings set forth herein below. The terms defined in the Construction Contract shall also apply to this Equipment Contract following Assignment. Where a term defined here conflicts with a defined term in the Construction Contract, the definition provided here shall govern.

2.1. "Additional Services" means work requested by the City to be performed that is not included in the scope of the Work to be performed as Base Services or Optional Services.

2.2. "Affiliate" means an entity that controls, is controlled by, or is under the common control, but only for as long as such control exists; for the purposes of this Equipment Contract, control is deemed to exist when the company in question has the authority by equity ownership, debt or contract, directly or indirectly through one or more intermediaries, to direct the actions or policies of the affiliate company.

2.3. "Article" means a provision of this Equipment Contract designated by a number title before the decimal.

2.4. "Assignment" means the assignment by the City and assumption by the Construction Contractor of this Equipment Contract, by which Thales shall become a subcontractor to the Construction Contractor in accordance with this Equipment Contract.

2.5. "ATCS" means the Advanced Train Control System provided to the SFMTA by Thales under this Equipment Contract and the Implementation Contract.

2.6. "ATCS Schedule" means the approved schedule for the design, implementation and testing of the ATCS, which is a subcomponent of the Project Schedule.

2.7. "Beneficial Use" shall have the meaning as defined in Section 2.08 ("Owner's Beneficial Use") of the General Provisions of the Construction Contract.

2.8. "City" means the City and County of San Francisco, a municipal corporation organized and existing under the laws of the State of California.

2.9. "Confidential Information" means any and all information that is defined as such in the Mutual Nondisclosure Agreement, appended to this Equipment Contract as Appendix F.

2.10. "Contract Amount" means the total amount of compensation to be paid to Thales under this Equipment Contract, as stated at Article 4 and in the Pricing and Milestone Payment Schedule set out in Appendix C.

2.11. "Construction Contract" means the public works contract Agreement No. CS-1300, between the City and Tutor Perini (the Construction Contractor), for the construction of the surface, trackwork and systems elements of the Central Subway Project.

2.12. "Construction Contractor" means Tutor Perini (also referenced as "Tutor"), the contractor awarded the Construction Contract.

2.13. "Construction Schedule" means the approved schedule for the performance and completion of the Construction Work

2.14. "Construction Work" means the work performed or subcontracted by the Construction Contractor that is not work proprietary to Thales or otherwise within Thales' scope of Work under this Equipment Contract.

2.15. "Days" mean consecutive calendar days, including weekends and holidays, unless otherwise specified.

2.16. "Design Manager" means the individual designated by City to be the primary liaison from the Designer to Thales for the purposes of this Equipment Contract.

2.17. "Designer" means HNTB-B&C Joint Venture, a joint venture of professional engineering firms obligated by Agreement CS-155-3 to design the signaling and control systems, traction power, trackway and other specified elements of the Central Subway Project.

2.18. "Designs" means engineering documents, drawings and specifications created by the Designer which Thales shall review under this Implementation Contract.

2.19. "Director" means the Director of Transportation, who is the chief executive officer of the SFMTA.

2.20. "Documentation" means any user documentation, instruction manuals, warranty documentation, maintenance documentation and documentation for Software and Proprietary Equipment and any updates or revisions thereof licensed under this Equipment Contract or the Implementation Contract.

2.21. "Effective Date of this Equipment Contract" is the date on which the authorized signatories of the City and Thales have executed this Equipment Contract.

2.22. "Effective Date of the Assignment" means the date when the SFMTA has executed a Contract Modification to the Construction Contract effecting the Assignment of this Equipment Contract from the SFMTA to the Construction Contractor. Such Contract Modification is expected to occur in 2013.

2.23. "Equipment Contract" means this agreement, Contract No. CS-1266-1, for the procurement of Proprietary Equipment for the ATCS for the Central Subway Project.

2.24. "Existing ATCS" means the Advanced Train Control System provided to the City by Alcatel under Agreement No. 1034R (1992).

2.25. "Final Acceptance" means the date and written notice of acceptance of the Work by the SFMTA to the Construction Contractor, issued in accordance with Section 6.22(K) of the San Francisco Administrative Code, issued when the Construction Contract has been fully performed, including all Items on punch lists, and when all contractual and administrative requirements have been fulfilled.

2.26. "Force Majeure" means any act of God or any other cause beyond a Party's control (including, but not limited to, any restriction, strike, lock-out, plant shutdown, material shortage, delay in transportation or any similar cause that delays the completion of the Work and that the Party could not have reasonably foreseen or mitigated.

2.27. "Implementation Contract" means SFMTA Contract No. 1266-2, which is the agreement between Thales and the SFMTA under which Thales will provide ATCS engineering and design review, installation oversight and testing, and safety certification support services for the Central Subway Project.

2.28. "Indemnitee" and "Indemnitees" are those individuals and organizations listed in Section 7.1(a) to whom defense and indemnification of claim or action is owed.

2.29. "Included Appendices" are those documents attached to the Equipment Contract, identified herein and that are incorporated into this Equipment Contract by reference.

2.30. "Milestone" means the dates set out in the Project Schedule or other SFMTA approved schedule by which Thales shall have completed identified portions of the Work.

2.31. "Non-Proprietary Equipment" means those elements of the ATCS that are not proprietary to Thales and will be supplied by the Construction Contractor as specified in the Implementation Contract or the Construction Contract.

2.32. "Optional Service(s)" means the Work identified in the Construction Contract and bid documents for the Construction Contract as options which if the City exercises an option and Thales performs the Work of that option, the City shall compensate Thales the amount listed for that Optional Service in the Pricing and Milestone Payment Schedule in Appendix C.

2.33. "Paragraph" means a provision of this Equipment Contract that is a subpart of a Section.

2.34. "Project Schedule" means the schedule approved by the SFMTA for completion of the all work under the Construction Contract, including but not limited to the Work to be performed by Thales under this Equipment Contract and the Implementation Contract as a subcontractor to the Construction Contractor.

2.35. "Proprietary Equipment" means the proprietary ATCS hardware, computers, servers, configured work stations, and other ATCS components, diagnostic and simulation tools, spare parts and other parts and electronic, mechanical or electrical components that are proprietary to Thales and can only be supplied by Thales, including but not limited to the ATCS Equipment, Software and other ATCS elements listed in Appendix B to this Equipment Contract.

2.36. Section means a provision of this Equipment Contract that is a subpart of an Article.

2.37. "Retention" shall mean funds held by the City or the Construction Contractor as provided in Section 14.2 of this Equipment Contract.

2.38. "Revenue Service" means the commencement of passenger service operations of the Central Subway as a public transit common carrier.

2.39. "SFMTA" means the San Francisco Municipal Transportation Agency, a department of the City and County of San Francisco ("City"), whose principal place of business is at 1 South Van Ness Avenue, San Francisco, California 94102, U.S.A.

2.40. "Site(s)" means the location(s) where the Proprietary Equipment, Non-Proprietary Equipment, Software or other ATCS elements are installed.

2.41. "Software" means all or any part of the specific collection of computer programs and/or machine-readable instructions bundled with or embedded in the Proprietary Equipment (aka firmware) provided by Thales under this Equipment Contract, whether as a stand-alone code product or pre-installed on Proprietary Equipment (aka firmware). Software shall include any updates or upgrades to the original ATCS software that may be licensed to the SFMTA pursuant to this Equipment Contract and/or the Implementation Contract, including but not limited to those listed in Appendix B to this Equipment Contract.

2.42. "Specifications" means the ATCS construction and function requirements listed in Article 3 and set out in Appendix H to this Equipment Contract.

2.43. "Substantial Completion" shall have the meaning as defined in the General Provisions of the Construction Contract at Section 1.01.A.93, which as applied to this Equipment Contract means the Work is sufficiently complete in accordance with the Contract Documents so that the ATCS can be utilized for the purposes for which it is intended, including but not limited to Revenue Service.

2.44. "Term," "Contract Term", "Term of Equipment Contract" or "Contract Period" means the period commencing on the Effective Date and terminating on the effective date stated in any termination notice or the date when the SFMTA gives Final Acceptance of the Work.

2.45. "Thales" means Thales Transport & Security, Inc., a corporation organized and existing under the laws of the State of Delaware, whose principal place of business is at 5700 Corporate Drive, Suite 750, Pittsburgh, PA 15237, U.S.A.

2.46. "Thales Affiliate" means a legal entity that is under common control with Thales Transport & Security, Inc.

2.47. "Work" means the procurement and provision of the Proprietary Equipment as provided in this Equipment Contract and performance of any ancillary or incidental work by Thales necessary to procure and provide said Proprietary Equipment, which are proprietary to, only available from, or otherwise appropriate to be procured under a sole source contract to Thales and that are necessary for the design, installation, implementation, testing and certification of the ATCS. The Work under this Equipment Contract is not Construction Work. In certain contexts the term "work" generally refers to the performance of tasks, duties and obligations by a Party. Any reference to work, whether or not capitalized, that due to its proprietary nature can only be performed or supplied by Thales, shall be considered an obligation of Thales under this Equipment Contract. Any reference to work, whether or not in lower case that is not proprietary to Thales, shall be considered an obligation of the Construction Contractor.

3. SUMMARY OF AGREEMENT AND SCOPE OF WORK.

3.1. This Equipment Contract provides the legal and procedural framework for Thales' provision of Proprietary Equipment and related benefits and services to the Central Subway Project necessary for the procurement, manufacture, installation, implementation and warranty of said Proprietary Equipment.

3.2. Due to the proprietary and unique nature of the Software, Proprietary Equipment other elements of the Work, and the SFMTA's requirement that the ATCS installed in the Central Subway be interoperational with the Existing ATCS, this Equipment Contract is necessarily a sole source contract. It is equally necessary, however, that the final designs, installation and testing of the ATCS in the Central Subway be integrated and coordinated with the installation and testing of all other systems that are to be procured and/or constructed under the Construction Contract. As more specifically set out in Article 6 below, to best effect that integration and coordination, this Equipment Contract shall be assigned to the Construction Contractor.

3.3. The Proprietary Equipment shall meet the requirements set out in the Construction Contract Specifications listed below (copies of which are appended to this Equipment Contract at Appendix H) as those Specifications may be amended and conformed:

- ATCS General Requirements (Construction Contract Specifications Section 34 42 23)
- ATCS Functional Requirements (Construction Contract Specifications Section 34 42 25)
- c. ATCS Safety (Construction Contract Specifications Section 34 42 27)
- d. ATCS System Assurance (Construction Contract Specifications Section 34 42 31)
- e. ATCS Room Equipment (Construction Contract Specifications Section 34 42 35)
- f. ATCS Wayside Equipment (Construction Contract Specifications Section 34 42 37)
- g. ATCS Central Equipment (Construction Contract Specifications Section 34 42 39)
- h. ATCS Testing (Construction Contract Specifications Section 34 42 41)

If amended as part of the Construction Contract, the amended Specifications shall govern.)

3.4. Pursuant to the requirements of Article 10, Thales shall warrant that the Proprietary Equipment will operate as specified for a three-year period commencing at Substantial Completion of the Construction Work, as further described in the Implementation Contract and the Specifications referenced therein.

4. COMPENSATION.

4.1. Thales shall be compensated for the delivery of the Proprietary Equipment listed in Appendix B and the Pricing Payment Schedule set out in Appendix C to this Equipment Contract. Thales may submit an invoice (application for payment) for said Proprietary Equipment (including for individual pieces of Proprietary Equipment) when said Equipment has been delivered to the storage

facility and transfer of title other required documentation of the Proprietary Equipment has been delivered to the SFMTA, as provided in Section 4.8.c.

4.2. Any services performed by Thales or provision or procurement of Non-Proprietary Equipment by Thales under the Construction Contract that is not provided by Thales under this Equipment Contract or the Implementation Contract shall be governed by a separate subcontract agreement negotiated between Thales and the Construction Contractor.

4.3. The total cost to the SFMTA for the Proprietary Equipment and any related Work provided under this Equipment Contract shall not exceed Three Million Three Hundred Fifty Thousand Four Hundred Twenty-Four United States Dollars (\$3,350,424 US).

4.4. No charges shall be incurred under this Equipment Contract nor shall any payments become due to Thales until the Proprietary Equipment (and certification of transfer of title), documentation, reports, services, or both, required under this Equipment Contract are received from Thales and approved by the SFMTA as being in accordance with this Equipment Contract, such approval not to be unreasonably delayed or withheld. City may reasonably withhold payment in any instance in which Thales has failed or refused to satisfy any material obligation associated with this Equipment Contract. The City shall provide Thales written notice by facsimile of suspension of payment and explanation of the suspension for Thales' non-performance no later than the date payment is due.

4.5. For Work performed under this Equipment Contract by a subcontractor other than a Thales Affiliate, the following shall apply:

- a. The Controller is not authorized to pay invoices prior to Thales' submission of HRC Progress Payment Form (attached hereto as Appendix E). If Progress Payment Form is not submitted with Thales' invoice, the Controller will notify the SFMTA and Thales of the omission. If Thales' failure to provide HRC Progress Payment Form is not explained to the Controller's reasonable satisfaction, the Controller will withhold 20% of the payment due pursuant to that invoice until HRC Progress Payment Form is provided.
- b. Following City's payment of an invoice, Thales has ten (10) days to file an affidavit using HRC Payment Affidavit verifying that all subcontractors have been paid and specifying the amount.

4.6. The City will make a good faith effort to pay all undisputed invoices within thirty (30) days of receipt, but the City shall have no liability to Thales for interest due to late payment. In the event that City does not make payment within a reasonable amount of time after such thirty (30) day period or is unable to make payments after such thirty (30) day period, then Thales will have the right to suspend the Work until such payment arrangements are mutually agreed upon by the Parties.

4.7. Where Work or Additional Work is not paid on an agreed-lump sum basis (such as cost-reimbursement plus fixed-fee basis), reimbursement of costs and other payment arrangement shall be governed by 48 CFR Subparts 49.2 and 49.3 to the extent that those principles are in accord with the cost principles for local governments set out in the Office of Management and Budget Circular A-97.

4.8. The City shall not be obligated to pay for the Proprietary Equipment provided by Thales under this Equipment Contract until the requirements and conditions set out in this Section and applicable Specifications have been fully satisfied.

- a. Thales shall submit to the SFMTA with any request for payment proof of purchase for the Proprietary Equipment by bills of sale, invoices, or other documentation warranting that Thales has received such materials and that said materials are free and clear of all liens, charges, security interests, and encumbrances.
- b. Title to the Proprietary Equipment shall be vested in the City upon payment by City to Thales for said equipment. As a condition of payment, Thales shall provide SFMTA with written confirmation of the transfer of title as a condition of payment.
- Thales shall store said Proprietary Equipment boxed or crated in a secure. C. clean, dry, and climate controlled building located in the San Francisco Bay Area until such time as the Construction Contractor requires delivery of said Proprietary Equipment for installation. Upon reasonable notice to Thales, the City may inspect the storage facility and said Proprietary Equipment at any time. Thales shall be compensated \$75,000 lump sum for transport of the Proprietary Equipment to the storage facility and all storage costs. When directed by the Construction Contractor to do so. Thales shall for no additional compensation deliver the Proprietary Equipment (or required components thereof) to the Site for installation by the Construction Contractor. When the Construction Contractor requires delivery of the Proprietary Equipment or any component thereof, the Construction Contractor shall provide Thales not less than 30 Days notice prior to the required delivery date. If a Thales supplier or subcontractor ships Proprietary Equipment or other materials to Thales at the storage facility, such shipment terms shall not create any additional storage or shipment charges for the City and shall be fully insured in transport either by said supplier/subcontractor or by Thales. Thales shall provide the SFMTA with a warehouse receipt, endorsed over to the City, for said stored Proprietary Equipment. The City shall not make any payment for such Proprietary Equipment until endorsed receipts and transfer of title documents in a form acceptable to the City are delivered to the SFMTA.
- d. Thales, at no additional cost to the City, shall insure stored Proprietary Equipment for its full replacement value against theft, fire, loss, vandalism, and malicious mischief covering said Proprietary Equipment while in the storage facility (referenced in Section 4.8.c) and in transit to the storage facility . Thales shall deliver the policy or certificate of such insurance to the Engineer naming the City as additional insured or loss payee as applicable. Said insurance shall not be cancelled without a minimum of 30 Days notice to the SFMTA as provided in the notice requirements of this Equipment Contract, and cancellation shall not be effective until such notice thereof is given to the City. The Construction Contractor shall be responsible for any loss and all replacement costs of the Proprietary Equipment lost or damaged at the Site.
- e. Thales shall protect stored Proprietary Equipment from damage. Damaged equipment and materials, even though paid for, shall not be incorporated into the Work

- f. Stored Proprietary Equipment shall be available for inspection by the City upon request.
- g. Thales shall deliver stored Proprietary Equipment from storage to the Site at no cost to the City.
- h. After delivery of Proprietary Equipment to the Site, if any inherent or acquired defects are discovered therein, Thales shall remove such defective Proprietary Equipment and replace it with non-defective equipment at no additional cost to the City.
- i. In the event of loss of or damage to Proprietary Equipment prior to Substantial Completion, Thales shall be responsible for replacing the lost or damaged Proprietary Equipment at its own cost and shall be responsible for all delays incurred on the Project as a result of such loss or damage. The City will credit to Thales amounts subsequently recovered from the insurer for the loss of the materials.
- j. Nothing in this Section shall relieve Thales of its responsibility for performing the Work, including provision of services, Proprietary Equipment and Software that conform to the requirements of the Equipment Contract and the Implementation Contract.
- Thales shall submit its payment applications pursuant to the Pricing and k. Milestone Payment Schedule in Appendix C of this Agreement. Prior to Assignment, the City shall pay Thales invoices for the Proprietary Equipment. After Assignment, the Construction Contractor shall pay Thales invoices for the Proprietary Equipment whereby Thales will submit a payment application to the Construction Contractor for review prior to the Construction Contractor submitting a final payment application to the SFMTA. Thales must submit its payment applications to the Construction Contractor no later than seven Days prior the Construction Contractor's due date to submit its payment application to the SFMTA. Thales shall include and submit supporting documentation with each application for payment. Tutor (Construction Contractor) will be required to submit for payment by the SFMTA, as part of Tutor's monthly invoice for payment, any Thales invoices submitted in accordance with the requirements of the Construction Contract and this document for Work by Thales that has been properly performed and equipment delivered as specified.

4.9. Price Validation. Within 120 Days of the Effective Date of this Equipment Contract, the SFMTA may engage a third party auditor to confirm that the price for the Proprietary Equipment is fair and reasonable as required under Federal Transit Administration, Department of Transportation contracting requirements. If the audit finds that the price is not reasonable, the Parties shall confer to reconcile the price for the Proprietary Equipment with the audit. If it is not possible to reconcile the price, the SFMTA may terminate or issue direction to the Construction Contractor (as applicable) to terminate this Equipment Contract.

5. TERM AND EFFECTIVE DATE OF AGREEMENT.

5.1. Term of the Equipment Contract. Subject to Section 14.1 (Certification of Funds) below, the Term of this Equipment Contract shall commence from the Effective Date (as provided in Section 5.2, below), and unless terminated earlier in accordance with the terms of this Equipment Contract, will continue in force and effect until the expiration of the Warranty Period.

5.2. Effective Date of the Equipment Contract, NTP, and Assignment. This Equipment Contract shall become effective when (a) authorized officers of both Parties have approved and executed this Equipment Contract; (b) the SFMTA has certified to the availability of funds as stated in Section 14.1, of this Equipment Contract and Thales has been so notified in writing, and (c) the SFMTA has issued Notice to Proceed ("NTP"), with such NTP to occur within 2013, to Thales to commence procurement of the Proprietary Equipment.

6. ASSIGNMENT OF THIS AGREEMENT TO THE CONSTRUCTION CONTRACTOR.

6.1. Assignment of Equipment Contract. This Equipment Contract shall be assigned from the SFMTA to the Construction Contractor selected to construct the stations, surface improvements, trackway, and control, signaling, and power traction systems for the Central Subway under the Construction Contract (SFMTA Equipment Contract No. 1300), as provided in this Article 6. Said Construction Contractor has been selected under the competitive low bid processes and requirements for public works contracts set out in Chapter 6 of the San Francisco Administrative Code and as otherwise required by law. The Construction Contract from the SFMTA. Following Assignment of this Equipment Contract, Thales shall be a subcontractor to the Construction Contractor. Thales agrees to said Assignment as a condition and requirement of this Equipment Contract.

6.2. Effective Date of Assignment. The Assignment shall be effective immediately upon the SFMTA's execution of a modification to the Construction Contract effecting the Assignment of this Equipment Contract to the Construction Contractor, which date shall be the Effective Date of the Assignment. The SFMTA shall provide written notice to Thales upon the SFMTA's execution of said modification of the Construction Contract, which shall serve as notice to Thales that the Assignment of this Equipment Contract has been effected.

6.3. Scope of Assigned Work. Following Assignment of this Equipment Contract, Thales shall perform or continue to perform the Work described in this Equipment Contract, including but not limited to provision of the Proprietary Equipment. Thales may, by separate agreement with the Construction Contractor, provide such other services as it is qualified to perform.

6.4. Compensation. Except as specifically provided in this Equipment Contract or as provided under applicable law, the City's obligations to pay and liability for payment of compensation to Thales under this Equipment Contract shall be limited to the compensation stated in Article 4 and in the Pricing and Milestone Payment Schedule set out in Appendix C of this Equipment Contract. Said limitation not shall preclude Thales from seeking additional compensation under a contract claim in accordance with the terms of this Equipment Contract prior to Assignment or in accordance with the requirements of California Government Code section 900 et seq. and San Francisco Administrative Code Article 10.

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6.5. Terms and Conditions of Assignment. The following terms and conditions shall apply to the Assignment of this Equipment Contract:

- a. Assignment. Except as specifically set forth in this Equipment Contract as a Reserved Right (as set out in Section 6.5.e., below), the SFMTA as assignor shall assign, transfer and convey to the Construction Contractor as assignee the SFMTA's right, title and interest in and to the Equipment Contract and all of the SFMTA's duties and obligations there under, to the extent arising on or after the Effective Date of the Assignment.
- b. **Assumption.** The Construction Contractor shall be required to accept the assignment transfer and conveyance of this Equipment Contract and shall be required to perform all of the City's duties and obligations under the Equipment Contract, to the extent arising on or after the Effective Date of the Assignment.
- c. **Further Assurances.** From and after the Effective Date of this Assignment, the City and Thales shall each do such things, perform such acts, and make, execute, acknowledge and deliver such documents as may be reasonably necessary or proper and usual to complete the conveyance contemplated by this Assignment.
- d. **Successors; Third-Party Beneficiaries**. Subject to the terms of the Equipment Contract, this Assignment shall be binding upon, and inure to the benefit of, the City and Thales and their respective successors and assigns. Nothing in this Assignment, whether express or implied, shall be construed to give any person or entity other than City, Thales, and the Construction Contractor and their respective successors and assigns any legal or equitable right, remedy or claim under or in respect of this Assignment or any covenants, conditions or provisions contained herein. The City shall be a third party beneficiary of all obligations of Thales set out in this Equipment Contract.
- e. **Reserved Rights.** Following Final Acceptance of the Work performed under the Construction Contract, for any claim or action that may arise or otherwise become actionable after said Final Acceptance, the City and Thales shall each have the right to seek any legal remedy and shall have the right to enforce any provision of this Equipment Contract that survives the expiration or termination of this Equipment Contract (as provided in Section 14.44) against the other.

6.6. City is Third Party Beneficiary. Following Assignment of this Equipment Contract to the Construction Contractor, as to the Work performed and the Proprietary Equipment provided under this Equipment Contract, the City shall be an intended third party beneficiary and shall have the right to enforce any provision of this Equipment Contract subject to the requirements of Paragraph 6.7 below.

6.7. Notification Process for Third Party Beneficiary Rights. The City agrees, through prior written notification, to only assert its right as a third party beneficiary where Thales has failed to cure a material breach or default of this Equipment Contract Notwithstanding the foregoing, the City will have no right to exercise its third party beneficiary rights hereunder unless it first provides written notification with reasonable detail a description of the material breach. Thales and / or the Construction Contractor will have the time period specified in said Section 14.01 of the General Provisions to remedy any such material breach and upon the expiration of such time period, if said breach is not cured or Thales fails to present a

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plan acceptable to the City to cure said breach, the City may then assert its third party beneficiary rights.

6.8. Direct Remedy. Thales waives any defense or other right (including but not limited to challenge of privity between Thales and the City following Assignment) that might prevent or hinder the City from seeking its remedies directly against Thales, rather than seeking said remedies from the Construction Contractor.

6.9. Beneficial Use. As provided in Section 2.08 ("Owner's Beneficial Use") of the General Provisions of the Construction Contract, the City may have Beneficial Use of the Work prior to Final Completion and Final Acceptance. But the City shall not have Beneficial Use of the ATCS until the Work under this Equipment Contract has reached Substantial Completion and Thales has issued to the SFMTA a safety certificate authorizing the SFMTA to commence Revenue Service.

6.10. Order of Precedence of Documents. Except as specifically provided herein, upon the Effective Date of the Assignment, this Equipment Contract shall be a subcontract to the Construction Contract and Thales shall be subject to the terms and conditions of the Construction Contract as those terms are applicable to a subcontractor.

6.11. No Limitation on Thales to Contract to Provide Non-Proprietary Services, Equipment or Software. This Equipment Contract is intended to cover Proprietary Equipment, Software and related services (Work) that is proprietary to and available only from Thales. This Equipment Contract shall not preclude Thales from providing on a negotiated, competitive basis such other services, equipment, and software that are not proprietary to Thales, but which Thales is qualified to provide to the Construction Contractor as a subcontractor or supplier.

6.12. Reassignment of Contract to City. At Final Acceptance at or when the Central Subway enters Revenue Service, the SFMTA will require by modification of the Construction Contract that the Construction Contractor reassign this Equipment Contract and the rights and obligations thereunder back to the City. Thales agrees that it will not object to such reassignment of this Equipment Contract, and will do all things reasonably necessary to assist in effecting said reassignment.

7. INDEMNITY.

7.1. Obligation to Defend and Indemnity.

a. To the fullest extent permitted by law and except as specifically provided otherwise in this Equipment Contract, upon the City's providing notice to Thales (as provided in Paragraph 7.1.b) as to any claim, administrative action, or lawsuit brought by a third party against the City for any loss of or damage caused by or arising from the negligent or intentional acts of Thales or its subcontractors arising from the Work. Thales shall assume the defense of said claim, administrative action, or lawsuit, indemnify and save harmless the City, its boards, commissions, officers, and employees (collectively "Indemnitees"). Subject to the requirements and limitations in Paragraph 7.3.b, said indemnification shall include any and all claims, suits, actions, losses, costs,

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damages, injuries (including, without limitation, injury to or death of an employee of Thales or its subconsultants), expense and liability of every kind, nature, and description (including, without limitation, direct, economic, indirect, incidental and consequential (special) damages incurred by said third parties, court costs, attorneys' fees, litigation expenses, fees of expert consultants or witnesses in litigation, and costs of investigation), that arise out of, result from, connected with, pertain or relate to, directly or indirectly, in whole or in part, the negligence, recklessness, or willful misconduct of Thales, any of its subconsultants or Affiliates, anyone directly or indirectly employed by them, or anyone that they control (collectively, "Liabilities") in the performance of the Work.

- b. The indemnification contained herein is subject to the City: (i) providing Thales with prompt written notice of the claim; (ii) granting Thales sole control of the defense to the claim except that Thales may not enter into any settlement that would adversely impact the City's rights or impose liability upon the City without its prior written consent; and, (iii) providing reasonable cooperation in the defense of the claim.
- c. The terms, conditions, provisions, and failure to cover of any insurance policy covering Thales' performance under this Equipment Contract shall not operate to limit Thales' Liabilities under this Equipment Contract. Nor shall the amount of insurance coverage operate to limit the extent of such Liabilities.
- d. Thales assumes no liability whatsoever for the sole negligence, active negligence, or willful misconduct of any Indemnitee.

7.2. Limitation of Liability.

- a. The City's total liability to Thales for the Work shall be limited to the value of the Work completed in accordance with the requirements of this Equipment Contract, said amount not to exceed the Contract Amount stated in Article 4, as that amount may be modified by a properly approved and executed Change Order.
- b. Except as provided herein, Thales' aggregate liability to the City under the Implementation Contract shall be limited to the aggregate sum of the Contract Amounts of the Implementation Contract and this Equipment Contract, as those amounts are stated in the respective Article 4 of each of those agreements, and as those amounts and the aggregate sum of those amounts may be modified by a properly approved and executed Change Order. Said limitation on liability shall not apply to:

(1) damages and other liability caused by Thales's willful, intentional acts or omissions;

(2) any applicable statute, City Ordinances, and Codes;

(3) damages that fall within the insurance coverages required under the Equipment Contract and/or the Implementation Contract;

(4) Thales's warranty obligations under the Equipment Contract, the Implementation Contract, and the Construction Contract;

(5) damages and other liability arising under claims by third parties, including indemnity or contribution for claims brought by a third party (see Paragraph 7.1.a);

(6) liability for violation of regulations and laws;

(7) damages and other liability for infringement of any intellectual property right as provided in Section 7.5;

(8) damages and other liability allocated to Thales by separate agreement negotiated between Thales and the Construction Contractor arising from work that is not covered under this Equipment Contract, that is, liability and damages that do not arise from Thales' performance of "Work" (as the term "Work" is defined in this Equipment Contract).

7.3. Limitations on Special Damages. The City and Thales's respective liabilities to each other for special, incidental, consequential, and indirect damages are hereby limited as follows:

- a. The City, its boards and commissions, and all of their officers, agents, members, employees, and authorized representatives shall have no liability to Thales for any type of special, consequential, indirect or incidental damages, including but not limited to losses of use, data, profit, revenue, income, business, anticipated savings, reputation, and more generally, any losses of an economic or financial nature, whether these may be deemed as consequential or arising directly and naturally from the incident giving rise to the claim, arising under or related to this Equipment Contract or under any cause of action related to the subject matter of this Equipment Contract, whether in contract, tort (including negligence), strict liability, or otherwise. This limit of liability applies under all circumstances including, but not limited to, the breach, completion, termination, suspension, cancellation or recession of the Work or this Equipment Contract, negligence or strict liability by the City, its boards and commissions, and their representatives, consultants or agents.
- Except as specifically provided in this Equipment Contract, Thales, and its b. Affiliates, employees, officers, directors and shareholders, shall not be liable to the City for any special, consequential, indirect or incidental damages, including but not limited to losses of use, data, profit, revenue, income, business, anticipated savings, reputation, and more generally, any losses of an economic or financial nature, whether these may be deemed as consequential or arising directly and naturally from the incident giving rise to the claim arising under or related to this Equipment Contract or under any cause of action related to the subject matter of this Equipment Contract, whether in contract, tort (including negligence), strict liability, or otherwise. Except as provided herein, this limit of liability applies under all circumstances including, but not limited to, the breach, completion, termination, suspension, cancellation or recession of the Work or this Equipment Contract, negligence or strict liability by Thales. Under no circumstances shall this limit of liability apply to or limit Thales's liability with respect to any of the following:

(1) Thales's obligation to pay liquidated damages as defined by the requirements and dollar limitations as set forth in Paragraph 13.3.a of this Equipment Contract or as otherwise agreed with the Construction Contractor;

(2) damages and other liability caused by Thales's willful, intentional acts or omissions;

(3) liability (statutory damages) imposed on Thales by law, including any applicable statute, City Ordinances, and Codes;

(4) damages and other liability arising under claims by third parties for loss or damage to property or personal injuries, including death;

(5) liability for violation of environmental regulations and laws;

(6) damages and other liability for infringement of any intellectual property right as provided in Section 7.4.a.

7.4. Indemnity for Infringement of Intellectual Property Rights.

- a. Thales shall indemnify, defend, and hold City and the Construction Contractor harmless from all loss and liability, including attorneys' fees, court costs and all other litigation expenses for any infringement of the patent rights, copyright, trade secret or any other proprietary right or trademark, and all other intellectual property claims of any person or persons in consequence of the use by City of the Proprietary Equipment or Software to be supplied in the performance of this Equipment Contract. Thales shall at its sole expense and election, provided any such election does not result in any cost to the City or the Construction Contractor; or (2) obtain the right to use the infringing item; or (3) modify the infringing item so that it becomes non-infringing; or (4) replace the infringing item with a non-infringing item, subject to the requirements of Paragraph d., below.
- b. Thales shall have no obligations hereunder with respect to intellectual property infringements caused by: (1) Thales' compliance with the City's designs; (2) City's use or combination of the Software or Proprietary Equipment with products or data of the type for which the Proprietary Equipment and Software was neither designed nor intended; or (3) the modification of the Software or Proprietary Equipment without Thales' prior written consent.
- c. The provisions of this Section 7.4 shall be the City's sole remedy for infringement claims and is conditional upon City (and if applicable, the Construction Contractor): (1) giving prompt notice in writing to Thales of any claim or proceeding being made or threatened; (2) allowing Thales to defend and settle under its responsibility any proceedings or claims through counsel chosen by Thales at Thales' own expense and (3) affording all reasonable assistance in connection therewith.
- d. Thales shall be entitled to modify or replace any infringing item so that it becomes non-infringing, or in the event that such modification or replacement is not possible using reasonable technical efforts, to replace the item concerned with another item that meets the performance requirements relevant to the replaced item.
- e. The City may in its discretion enforce the provisions of this Section 7.5 and seek its remedies directly against Thales or the Construction Contractor, irrespective of the assignment of this Equipment Contract to the Construction

Contractor. Thales shall not refuse to meet its obligations under this Section 7.5 based on any theory of a lack of privity between Thales and the City.

7.5. **Responsibility for Equipment.** City shall not be responsible for any damage to persons or property as a result of the use, misuse or failure of any equipment or tools provided by and used by Thales, or by any of its employees, for the purposes of performing any services hereunder, irrespective of whether Thales, the City or the Construction Contractor provided, rented or loaned said equipment or tools to Thales.

7.6. Release of Hazardous Materials. Thales acknowledges that any claims, demands, losses, damages, costs, expenses, and legal liability that arise out of, result from, or are in any way connected with the release or spill of any legally designated hazardous material or waste or contaminated material as a result of the Work performed under this Equipment Contract are expressly within the scope of the indemnity set out in this Article, and that the costs, expenses, and legal liability for environmental investigations, monitoring, containment, removal, repair, cleanup, restoration, remedial work, penalties, and fines arising from the violation of any local, state, or federal law or regulation, attorney's fees, disbursements, and other response costs are expressly within the scope of this indemnity.

7.7. Joint and Several Liability. If Thales is a joint venture partnership, the requirements of this Article shall apply jointly and severally to each joint venture partner.

8. INSURANCE.

Note: The parties agreed to amend this Section 8 prior to final execution of the Agreement; deleted text is lined-through, and added text is underlined. The parties' assent to these changes are indicated by the authorized signatures of parties' representatives at the end of this Section.

Thales shall maintain in full force and effect, from the Effective Date of this Equipment Contract through Final Acceptance of all work performed under the Construction Contract, the insurance as described in this Article, with the minimum specified coverages or coverages as required by laws and regulations, whichever is greater, as set out below. Contractor may use the same insurance policies to satisfy the aggregate insurance requirements of this Equipment Contract and the insurance requirements of the Implementation Contract.

8.1. Worker's Compensation Insurance. Thales shall provide workers compensation insurance in statutory amount, including Employers' Liability coverage with limits not less than Two Million Dollars (\$2,000,000) each accident, injury, or illness, including coverage, as applicable, for U.S. Long Shore and Harbor Workers' Act benefits and Jones Act benefits, and Federal Employers Liability Act. The Worker's Compensation policy shall be endorsed with a waiver of subrogation in favor of the City for all work performed by Thales, its employees, agents and subcontractors.

8.2. Commercial General Liability insurance. Thales shall provide commercial general liability insurance that is project specific (i.e., specific to the Work under this Equipment Contract) with aggregate coverage limits not less than Fifty Million Dollars (\$50,000,000) each occurrence combined single limit for bodily injury and property damage, including coverage for Contractual Liability, independent Thales, Explosion, Collapse, and Underground (XCU), Personal Injury, Broadform Property Damage, products, and completed operations. <u>Thales may</u>

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meet this requirement with one or more insurance policies that generally cover its corporate projects and operations, provided that should a claim or claims be paid by said policy or policies that total in the aggregate more than Five Million Dollars (\$5,000,000 US), Thales shall within ten Days of receipt of such claim(s) provide notice of same to the SFMTA and obtain additional insurance so that Thales' Work under this Equipment Contract and the Implementation Contract is at all times fully covered in the amount of Fifty Million Dollars (\$50,000,000 US), as provided herein.

8.3. Commercial Automobile Liability Insurance. Thales shall provide commercial automobile liability insurance with limits not less than Two Million Dollars (\$2,000,000) each occurrence combined single limit for bodily injury and property damage, including owned, hired or non-owned vehicles, as applicable.

8.4. Risk of Loss Coverage for Proprietary Equipment. Thales shall insure Proprietary Equipment and Software, to the extent that Software is provided under this Equipment Contract, against loss prior to City's acceptance, as required by Sections 4.8 and 14.14 of this Equipment Contract.

8.5. Forms of Policies and Other Insurance Requirements.

- a. Before commencement of the Work of this Equipment Contract, certificates of insurance and policy endorsements in form acceptable to the City and with insurers acceptable to the City, evidencing all required insurance and with proper endorsements from Thales's insurance carrier identifying as additional insureds the Indemnitees, shall be furnished to the City, with complete copies of policies to be furnished to the City promptly upon request. Thales shall deliver appropriate bond and insurance certificates and endorsements acceptable to the City within five Working Days of the date the Equipment Contract is awarded.
- b. Approval of the insurance by the City shall not relieve or decrease the extent to which Thales or subcontractor of any tier may be held responsible for payment of any and all damages resulting from its operations. Thales shall be responsible for all losses not covered by insurance, excluding damage caused by earthquake and flood (whether caused by storm or tidal wave) consistent with section 7105 of the California Public Equipment Contract Code in excess of 5 percent of the Equipment Contract Sum, including the deductibles. All policies of insurance and certificates are subject to review by the City and shall be satisfactory to the City.
- c. Thales and its subcontractors shall comply with the provisions of California Labor Code section 3700. Prior to commencing the performance of Work, Thales and all of its subcontractors shall submit to the awarding department a certificate of insurance against liability for workers compensation or proof of self-insurance in accordance with the provisions of the California Labor Code.
- d. Liability insurance, except for professional liability insurance, shall be on an occurrence basis, and said insurance shall provide that the coverage afforded thereby shall be primary coverage (and non-contributory to any other existing valid and collectable insurance) to the full limit of liability stated in the declaration, and such insurance shall apply separately to each insured against whom claim is made or suit is brought, but the inclusion of more than one insured shall not operate to increase the insurer's limits of liability.

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- e. Except for professional liability insurance and general liability insurance, should any of the required insurance be provided under a form of coverage that included an annual general aggregate limit or provides that claims investigation or legal defense costs be included in such annual general aggregate limit, such general aggregate limit shall be two times the occurrence limits stipulated.
- f. Should any of the required insurance be provided under a claims-made form, Thales shall maintain such coverage continuously throughout the Term of this Equipment Contract, and without lapse, for a period of five (5) years beyond the Equipment Contract Final Completion date, to the effect that, should occurrences during the Equipment Contract Term give rise to claims made after expiration of the Equipment Contract, such claims shall be covered by such claims-made policies.
- g. If a subcontractor will be used to complete any portion of this agreement, Thales shall ensure that the subcontractor shall provide all necessary insurance and shall include the City and County of San Francisco, its officers, agents and employees and Thales listed as additional insureds.
- h. All insurance policies required to be maintained by Thales hereunder shall be endorsed to provide for thirty (30) Days prior written notice of cancellation for any reason, intended non-renewal, or reduction in coverage to the City. All notices shall be made to:

Deputy, Contract Administration Capital Programs and Construction SFMTA 1 South Van Ness Avenue, 3rd Floor San Francisco, CA 94103

and to:

Program Manager Central Subway Project SFMTA 1 South Van Ness Avenue, 3rd Floor San Francisco, CA 94103

and to:

i.

Risk Management Division City and County of San Francisco 25 Van Ness Avenue, Suite 750 San Francisco, CA 94102

Thales, upon notification of receipt by the City of any such notice, shall file with the City a certificate of the required new or renewed policy at least 10 Days before the effective date of such cancellation, change or expiration, with a complete copy of new or renewed policy.

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j. If, at any time during the life of this Equipment Contract, Thales fails to maintain any item of the required insurance in full force and effect, all Work of this Equipment Contract may, at City's sole option, be immediately suspended, and all Equipment Contract payments due or that become due will be withheld, until notice is received by the City as provided in the immediately preceding Paragraph 7 that such insurance has been restored to full force and effect and that the premiums therefore have been paid for a period satisfactory to the City.

8.6. Joint and Several Liability. If Thales is a joint venture partnership, the liability of each partner of the joint venture shall be joint and several. No insurance policy providing coverage under this Equipment Contract shall contain any provision prohibiting coverage of a joint venture partnership or otherwise limiting coverage any joint venture partner.

8.7. Indemnitees.

- a. For general liability insurance, Thales shall include as additional insureds the City and County of San Francisco, its board members and commissions, and all authorized agents and representatives, and members, directors, officers, trustees, agents and employees of any of them.
- b. With the exception of professional liability insurance, Thales shall include as additional insured or exclusive loss payee on all policies the City and County of San Francisco, its board members and commissions, and all authorized agents and representatives, and members, directors, officers, trustees, agents and employees of any of them.

8.8. Insurer Qualifications. Insurance companies providing coverage for this Equipment Contract shall be legally authorized to engage in the business of furnishing insurance in the State of California. All insurance companies shall have a current A.M. Best Rating not less than "A-,VIII" and shall be satisfactory to the City.

8.9. Application of these Insurance Requirements.

- a. Should Thales be awarded the Construction Contract (as a prime contractor or as prime joint venture partner), Thales shall maintain the insurance provided in this Article to cover the Work performed under this Equipment Contract, as set out in this Equipment Contract, unless the City in its sole discretion determine that such insurance is duplicative of the insurance provided by the Construction Contractor. Should the City determine that said insurance is duplicative, the City shall be entitled to a credit, subject to proof, of the insurance premium saved by relieving Thales of said insurance requirements.
- b. Should the City in its sole discretion determine that insurance required under this Equipment Contract is duplicative of the insurance provided by the Construction Contractor, the City shall be entitled to a credit, subject to proof, of the insurance premium saved by relieving Thales of said duplicative insurance requirements.

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-Jóhn Brohm President & CEO Thales Transport & Security, Inc.

Edward D. Reiskin Director of Transportation SFMTA

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9. NO PRIOR AGREEMENT WITH OR EXCLUSIVE RELATIONSHIP TO CONSTRUCTION CONTRACTOR.

9.1. Thales acknowledges that a material and central purpose of this Equipment Contract is to ensure that as to the provision of ATCS Proprietary Equipment and Software and related services necessary to construct and implement the ATCS all qualified construction contractors are provided equal opportunity to submit a bid for award of the Construction Contract, and no contractor shall be provided an unfair advantage in the pricing of said ATCS Proprietary Equipment and Software and related necessary services. Thales therefore certifies and warrants that prior to the Effective Date of this Equipment Contract it has not entered into or otherwise negotiated any exclusive agreement. relationship, arrangement with any contractor that may bid on the Construction Contract that would provide any contractor with an unfair competitive advantage in bidding or could otherwise be considered collusion. Thales further agrees and warrants that it shall not enter into any such exclusive agreement, relationship or arrangement or take any other action that may provide any potential bidder for the Construction Contract with an unfair competitive advantage as to the design. procurement, installation and testing of the ATCS and other services to be provided under this Equipment Contract.

9.2. To help ensure that the bidding process for selection of the Construction Contractor is fair and competitive, the SFMTA and Thales shall not respond directly to any question or inquiry from any potential or actual Bidder to the Construction Contract. The SFMTA shall receive questions from Bidders to the Construction Contract concerning Thales' Work under this Equipment Contract and the ATCS, and the SFMTA shall forward those questions to Thales. The SFMTA shall receive Thales' responses and will publish those responses by addenda to the Bid Documents for the Construction Contract or other appropriate publication.

10. WARRANTY.

- a. Thales warrants that the Work will be performed in a professional and workmanlike manner. Thales warrants that all Proprietary Equipment and Software supplied under this Agreement shall be free from defects in material and workmanship for a period of three (3) years (the "Warranty Period") commencing upon the SFMTA's determination that all Work performed under the Construction Contract has reached Substantial Completion. The Proprietary Equipment procured under this Agreement and the Work provided under the Implementation Contract are covered under a unified warranty that applies to the operations of the ATCS and its constituent parts, including but not limited to the Proprietary Equipment and Software.
- b. Thales's obligation under this warranty shall be limited to the correction, repair or replacement of the nonconforming Proprietary Equipment or Software, or any part thereof. The City acknowledges that Thales' Software may contain open source software or other software not developed by Thales. If during the Warranty Period such open software, firmware or other software not developed by Thales should malfunction or otherwise fail to operate in such a way that the ATCS does not meet the performance specifications of this Equipment Contract, Thales shall at no cost to the City replace or modify said software so

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that the ATCS meets said performance specifications. It is the intent of the Parties that the warranty shall guarantee the utility and performance of the ATCS; the choice of software and other constituent elements of the ATCS implemented to meet the ATCS performance specifications are wholly within the control of Thales.

This warranty is conditioned on the City notifying Thales in writing of any defect C. within the warranty period. The warranty shall not apply to wear and tear, consumable items and to defects arising from or connected with: (i) The City's or any third party's improper receipt, transport, handling, storage, maintenance, testing, installation, operation and use of the Proprietary Equipment or Software; (ii) Such Proprietary Equipment or Software having been operated beyond its rated capacity or not having been operated and maintained in all respects in a normal and proper manner in accordance with the instructions or manuals provided by Thales or having been subject to neglect or abuse after delivery to the City or third parties; and/or (iii) an alteration, modification, maintenance, overhaul or repair made on the Proprietary Equipment or Software by anyone other than Thales or those specifically authorized by Thales; provided further that this warranty shall not apply to third party products or services that were not provided by Thales, third party Software, including, but not limited to, Open Source Software, but which may be required for the operation of the Proprietary Equipment or Software.

d. Contractor disclaims and the City waives any and all implied warranties, including, but not limited to, any and all implied warranties that may be applicable under the Uniform Commercial Code or other applicable statutes, including implied warranties arising by usage or custom of trade.

11. SOFTWARE AND ATCS DOCUMENTATION LICENSE.

11.1. To the extent that any Software is provided under this Equipment Contract, including but not limited to software, embedded code or other programming contained in the Proprietary Equipment, the provisions of this Article shall apply.

11.2. The City is hereby granted a non-exclusive, non-transferable, perpetual, restricted license to use the Software from the date of full payment for same for the operation, monitoring, and maintenance of the ATCS. The City is hereby granted a non-exclusive, non-transferable, perpetual, restricted license to use the ATCS Documentation from the date of full payment for same for the operation, monitoring, maintenance of the ATCS and for purposes of confirming the safe operation and safety certification of the ATCS to the Federal Transit Agency, the California Public Utilities Commission and other regulatory agencies. The City has no right to grant sublicenses to the Software or Documentation. Thales warrants that it has the title to and/or authority to grant said license(s) and sublicenses(s) to the City.

11.3. Notwithstanding anything to the contrary contained in this Equipment Contract, it is understood that the City receives no title or ownership rights to the Software or Documentation, and all such rights shall remain with Thales or its suppliers.

11.4. The Software, Documentation or any renewals, extensions or expansions hereof shall, as between the Parties, be treated as proprietary and a trade secret of Thales or its suppliers and be subject to the provisions of the Mutual Nondisclosure Equipment Contract appended hereto as Appendix F.

11.5. The City agrees that the license to use the Software may contain freely available Software (referred to hereafter as "Open Source Software") obtained by Thales from a third party source. No license fee has been paid by Thales for the inclusion of any such Open Source Software, and no license fee is charged to City for its use. City acknowledges and agrees that neither Thales, nor the third party source, provides any warranties for the Open Source Software, other than stated in Section 10.b.

11.6. The City shall not:

- a. Make any copies of the Software or parts thereof, except for archival back up purposes and when making copies as permitted herein, shall transfer to the copy/copies any copyright or proprietary legends or other marking on said Software; or
- b. Use said Software for any other purpose than permitted in this Article 11; or
- c. Translate, reverse engineer, adapt, arrange or error-correct or make any other alterations to said Software.

11.7. The City may as necessary for the continued maintenance and certification of the ATCS, provide copies of ATCS System Documentation to regulatory agencies with jurisdiction over the SFMTA and to consultants engaged by the SFMTA to assist in the maintenance, operation and certification of the ATCS. The City may release System Documentation and provide access to ATCS Software to City consultants only under a confidentiality agreement that imposes on City consultants the same obligations as to confidentiality of Thales' intellectual property as is placed on the City under this Equipment Contract.

11.8. Thales shall comply with the Three Party Software Escrow Agreement (to be entered as a prerequisite of Final Acceptance) between Thales, City and Iron Mountain Intellectual Property Management, Inc., with respect to the updating of the Deposit Material escrowed there under. The Software license is effective until terminated. The City may terminate this Software license at any time by destroying or erasing all copies of the Software and accompanying written materials in the City's possession or control. Said license will terminate upon written notice and reasonable opportunity to cure (which shall not be less than 30 days) from Thales if the City fails to comply with the terms and conditions of this license. Upon such termination, the City shall destroy or erase all copies of the Software (together with all modifications, upgrades and merged portions in any form) and any accompanying Documentation in the City's possession or control.

11.9. Copies of Software and Documentation. SFMTA shall make available to Thales as needed a copy of all the Software installed and related Documentation, and a copy of certificates of the software licenses provided by third-parties for integration of those products to the ATCS to other systems or other purpose necessary for the Work.

11.10. ATCS Documentation License. Thales shall supply two printed copies and an electronic printable version of the Documentation to the City for Proprietary Equipment and Software purchased under this Equipment Contract. The City may make copies of the Documentation to the extent necessary to maintain one (1) archive version and as required to train its employees in the operation and maintenance of the ATCS provided always that all copyright, confidentiality or proprietary legends or other markings shall be transposed onto

such permitted copies. The Documentation and all permitted copies thereof shall at all times be treated as proprietary and a trade secret of Thales or its subcontractors and be subject to the provisions of this Equipment Contract for Confidential Information.

11.11. The City shall not have the right to make any modifications to the Documentation.

12. PROTECTION OF CONFIDENTIAL AND SECURITY SENSITIVE INFORMATION.

12.1. Proprietary or Confidential Information. The Parties' respective obligations as to proprietary and confidential information are set out in the Mutual Nondisclosure Equipment Contract attached hereto as Appendix F, which is incorporated by reference as if fully set out here. The City shall be entitled to disclose Confidential Information on a need to know basis to consultants engaged by the Agency to assist in the design, testing, certification, and maintenance of the ATCS and the integration of ATCS data to other SFMTA systems, provided that said consultant(s) abide by the confidentiality terms of this Equipment Contract.

12.2. Security Sensitive Information.

a. Design Documents are Security Sensitive Information.

(1) The Drawings and related design documents that are provided to Thales to perform the Work under the Equipment Contract are Security Sensitive Information ("SSI Documents"), as that term is defined under applicable federal law and federal Department of Transportation security policies. 49 CFR 15 and 1520.

(2) The SSI Documents are identified by the markings printed on individual drawings and exterior covers of drawing sets that indicate that they are SSI Documents.

(3) The SSI Documents show detailed designs of the Central Subway Project. Thales recognizes that access to the SSI Documents by unauthorized persons or organizations would pose significant risk of grave harm to the Central Subway Project and public safety.

b. Use of SSI Documents.

(1) Thales shall use the SSI Documents only for the purposes of performing the Work under the Equipment Contract, and for no other purpose.

(2) Thales shall guard the SSI Documents safe and secure at all times from disclosure to unauthorized personnel, and shall only allow access to the SSI Documents to persons with a "need to know" for performing the Work. When the SSI Documents are not being used to perform the Work, Thales shall keep the SSI Documents in a locked, secure area so that the SSI Documents are not physically or visually accessible to persons who are not directly involved in the preparation of Thales' Proposal for the Equipment Contract. When unattended, the SSI Documents must be secured in a locked container, office, or other restricted access area with access to the keys or combination limited to those with a need to know.

(3) Thales shall not copy, publish, circulate or use any of the SSI Documents for any purpose other than performing the Work under this

Equipment Contract, without first obtaining the SFMTA's written approval to do so.

- c. Disposal of the SSI Documents. After Final Acceptance of the Work or earlier termination of the Equipment Contract, Thales may keep one set of the SSI Documents for its internal use only, but shall return all other sets of SSI Documents or destroy them, as follows:
 - (4) SSI Documents shall be returned to:

San Francisco Municipal Transportation Agency Capital Programs and Construction Attention: Shahnam Farhangi 1 South Van Ness, 3rd floor San Francisco, CA 94103

(5) If not returned to the SFMTA, the SSI Documents must be destroyed in a manner that ensures recovery of the information contained therein would be difficult, if not impossible. Any means approved for the destruction of national security classified material such as machine shredding, may be used to destroy the SSI Documents. If no such means is available, the SSI Documents may be destroyed by cutting or tearing them into small pieces and assimilating it with other waste material. Compact discs or other physical electronic media containing the SSI Documents shall be broken to pieces. Electronic files containing the SSI Documents or any portion of them shall be deleted. Thales shall certify to the SFMTA in writing that the SSI Documents have been destroyed as required herein.

- d. Liability for Failure to Secure or Misuse of the SSI Documents. Thales shall be fully liable for any and all harm and damages that may arise from unauthorized persons or entities gaining access to the SSI Documents due to or arising from Thales' failure to adhere strictly to the requirements of this Article 12. In addition to civil liability, Thales is cautioned that violation of applicable laws and regulations concerning protection and use of Security Sensitive Information may subject Thales to federal penalties.
- e. Subcontractors. Thales shall include the provisions of this Article 12 in any agreement with Subcontractor or Supplier that will require access to the SSI Documents, and Thales shall be responsible for its Subcontractors' and Suppliers' adherence to the requirements of this Article.
- f. Reference Documents Designated as Security Sensitive Information. The Reference Documents and other materials designated Security Sensitive Information shall be handled in accordance with the requirements set forth in this Section.

13. SCHEDULE, DELAY AND LIQUIDATED DAMAGES.

13.1. Time Is of the Essence; Central Subway Project Schedule. Time is of the essence for the completion of the Work under this Equipment Contract. Thales shall devote sufficient resources and personnel to complete its Work within the Project Schedule, a copy of which is appended to this Equipment Contract as Appendix I, which is hereby incorporated by reference.

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13.2. Commencement of Services. Thales' obligation to provide the services hereunder shall begin on the Effective Date of the Assignment of this Equipment Contract to the Construction Contractor.

13.3. Delays.

- **Delay Due to Thales.** By entering into this Equipment Contract, Thales agrees a. that in the event the Proprietary Equipment. Software or services Thales will provide under this Equipment Contract are delayed the City will suffer actual damages that will be impractical or extremely difficult to determine. For each Day that the Work under this Equipment Contract is delayed beyond the date for Substantial Completion stated in the Construction Contract, and such delay causes delay to the Substantial Completion of the Work of the Construction Contractor, and such delay is solely and directly attributable to Thales, then Thales shall pay to the Construction Contractor liquidated damages in an amount not to exceed Fifty Thousand Dollars (\$50,000) for every Day of delay for which the City assesses the Construction Contractor liquidated damages for delay. If the City does not assess liquidated damages against the Construction Contractor for delay that is solely and directly attributed to Thales, then Thales shall not be liable to the Contractor for said liquidated damages. Said liquidated damages are not a penalty, but are a reasonable estimate of the losses that the Construction Contractor and City will incur based on the delay, established in light of the circumstances existing at the time the City and Thales executed this Equipment Contract. The City shall subtract said amounts of liquidated damages from amounts that are due Thales. For the avoidance of doubt, notwithstanding any other provision of this Equipment Contract, Thales's liability for liquidated damages for delay to the Substantial Completion of the Work shall not exceed the total Contract Amount of Equipment Contract as stated in Article 4 and Appendix C of this Equipment Contract.
- b. Delay Not Due to Thales. In the event that Thales incurs additional cost or delay in the scheduled milestones or timelines of the Work prior to Assignment due to: (1) any act, omission or delay of the City with respect to its obligations under this Equipment Contract; or (2) any circumstance not solely and directly attributable to Thales (3) another contractor or subcontractor to the Central Subway Project; or (4) delay in approval by a regulatory agency where such delay is not due to the ATCS not meeting regulatory requirements, the relevant Milestone dates shall be modified accordingly such that the scheduled milestones or timelines shall be extended for a period not less than the period of delay unless otherwise mutually agreed by the Parties. If such delay is attributable to the City, the City shall reimburse Thales for all reasonable additional costs and expenses incurred by Thales as a result of such delay.

14. GENERAL PROVISIONS.

14.1. Certification of Funds; Budget and Fiscal Provisions; Termination in the Event of Non-Appropriation.

a. This Equipment Contract is subject to the budget and fiscal provisions of the City's Charter. This Equipment Contract shall not come into force and effect and Thales shall have no obligation to perform hereunder until such time as City has provided prior written authorization certified by the Controller confirming the availability of funds to compensate the Thales for the Proprietary Equipment to be procured and the Work to be performed hereunder. The full amount of the City's payment obligations and Thales' performance obligations under this Equipment Contract shall not at any time exceed the amount certified for the purpose and period stated in such advance authorization. The certification of funds for this Equipment Contract shall be included in the certification of funds for the Construction Contract.

- b. This Equipment Contract will terminate without penalty, liability or expense of any kind to City at the end of any fiscal year if funds are not appropriated for the next succeeding fiscal year. If funds are appropriated for a portion of the fiscal year, this Equipment Contract will terminate, without penalty, liability or expense of any kind at the end of the Term for which funds are appropriated.
- c. City has no obligation to make appropriations for this Equipment Contract in lieu of appropriation for new or other agreements. City budget decisions are subject to the discretion of the Mayor and the Board of Supervisors. Thales' assumption of risk of possible non-appropriation is part of the consideration for this Equipment Contract.
- d. The City shall pay charges under this Equipment Contract, exclusively from legally available funds, to Thales or, in the event of an authorized assignment by Thales to its assignee, according to the terms of this Equipment Contract.
- e. Except as may be provided by laws governing emergency procedures, officers and employees of the City are not authorized to request, and the City is not required to reimburse Thales for Proprietary Equipment or services provided beyond the agreed upon contract scope unless the changed scope is authorized by amendment to this Equipment Contract and approved as required by law. The Parties accept and agree that any change or variation to this Equipment Contract shall be null and void unless the Parties have mutually agreed to the terms and conditions of such change or variation and it has been authorized by amendment and approved as required by law.
- f. Officers and employees of the City are not authorized to offer or promise, nor is the City required to honor, any offered or promised additional funding in excess of the maximum amount of funding for which the contract is certified without certification of the additional amount by the Controller.
- g. The Controller is not authorized to make payments on any contract for which funds have not been certified as available in the budget or by supplemental appropriation. The Controller is not authorized to make payments on any contract for which funds have not been certified as available in the budget or by supplemental appropriation. The City's obligation hereunder shall not at any time exceed the amount certified by the Controller for the purpose and period stated in such certification.

h. This Section 14.1. controls against any and all other provisions of this Equipment Contract.

14.2. Payment.

a. Invoice Format. Invoices furnished by Thales under this Equipment Contract shall be in the form attached as Appendix D (Sample Invoice) and must

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reference this Equipment Contract and the Construction Contract and the tasks or deliverables provided for which payment is sought. Prior to Assignment, the City shall make payments directly to Thales. Following Assignment, the City shall make payments to the Construction Contractor for all Work performed by Thales and shall have no obligation to pay Thales directly for said services, Proprietary Equipment or Software.

Retention. Prior to Assignment, the City shall withhold ten percent (10%) of b. amounts due under each invoice for payment in the same manner as the City retains funds due the Construction Contractor, as provided in the General Provisions, Section 9.09 of the Construction Contract and as authorized by San Francisco Administrative Code section 6.22.J. Following Assignment, the Construction Contractor shall withhold ten percent (10%) of amounts due under each progress payment. As provided in San Francisco Administrative Code section 6..22.J, when Thales has completed fifty percent (50%) of the Work under this Equipment Contract, the Construction Contractor shall release fifty percent (50%) of funds held in retention to Thales, but shall withhold the remainder until the ATCS has passed the Reliability Demonstration Test ("RDT") and the SFMTA has issued Final Acceptance of the Work as provided under the Construction Contract, General Provisions, Section 1.01A.46, in accordance with in accordance with San Francisco Administrative Code section 6.22(K).

Submitting False Claims: Monetary Penalties. Pursuant to San 14.3. Francisco Administrative Code §21.35, any Thales, and any of its subcontractors or consultants who submits a false claim shall be liable to the City for the statutory penalties set forth in that section. The text of Section 21.35, along with the entire San Francisco Administrative Code is available on the web at http://www.municode.com/Library/clientCodePage.aspx?clientID=4201. A Thales, subcontractor or consultant will be deemed to have submitted a false claim to the City if Thales, subcontractor or consultant: (a) knowingly presents or causes to be presented to an officer or employee of the City a false claim or request for payment or approval; (b) knowingly makes, uses, or causes to be made or used a false record or statement to get a false claim paid or approved by the City; (c) conspires to defraud the City by getting a false claim allowed or paid by the City; (d) knowingly makes, uses, or causes to be made or used a false record or statement to conceal, avoid, or decrease an obligation to pay or transmit money or property to the City; or (e) is a beneficiary of an inadvertent submission of a false claim to the City, subsequently discovers the falsity of the claim, and fails to disclose the false claim to the City within a reasonable time after discovery of the false claim.

14.4. Disallowance and Certification to Non-Disbarment.

- a. If Thales claims or receives payment from City for a service, reimbursement for which is later disallowed by the State of California or United States Government, Thales shall promptly refund the disallowed amount to City upon City's request. At its option, City may offset the amount disallowed from any payment due or to become due to Thales under this Equipment Contract, but City shall provide Thales with no less than 30 Days notice prior to effecting such offset.
- b. By executing this Equipment Contract, Thales certifies that it is not suspended, debarred or otherwise excluded from participation in federal assistance

programs. Thales acknowledges that this certification of eligibility to receive federal funds is a material term of this Equipment Contract.

14.5. Taxes.

- a. Prior to Assignment, payment of any taxes, customs duties, fees, levies or charges of any kind, including possessory interest taxes and California sales and use taxes (hereinafter collectively referred to as "Taxes") levied upon or as a result of this Equipment Contract, or the services, Software or Proprietary Equipment delivered pursuant hereto, shall be the obligation of Thales. Following Assignment, payment of any taxes, customs duties, fees, levies or charges of any kind, including possessory interest taxes and California sales and use taxes (hereinafter collectively referred to as "Taxes") levied upon or as a result of this Equipment Contract, or the services, Software or Proprietary Equipment delivered pursuant hereto, shall be the obligation of the services of this Equipment Contract, or the services, Software or Proprietary Equipment delivered pursuant hereto, shall be the obligation of the Construction Contractor. Thales shall provide such information as may be reasonably requested by the City to enable the City to comply with any tax reporting requirements imposed by applicable law.
- b. Thales recognizes and understands that this Equipment Contract may create a "possessory interest" for property tax purposes. Generally, such a possessory interest is not created unless the Equipment Contract entitles Thales to possession, occupancy, or use of City property for private gain. If such a possessory interest is created, then the following shall apply:

(1) Thales, on behalf of itself and any permitted successors and assigns, recognizes and understands that Thales, and any permitted successors and assigns, may be subject to real property tax assessments on the possessory interest;

(2) Thales, on behalf of itself and any permitted successors and assigns, recognizes and understands that the creation, extension, renewal, or assignment of this Equipment Contract may result in a "change in ownership" for purposes of real property taxes, and therefore may result in a revaluation of any possessory interest created by this Equipment Contract. Thales accordingly agrees on behalf of itself and its permitted successors and assigns to report on behalf of the City to the County Assessor the information required by Revenue and Taxation Code section 480.5, as amended from time to time, and any successor provision.

(3) Thales, on behalf of itself and any permitted successors and assigns, recognizes and understands that other events also may cause a change of ownership of the possessory interest and result in the revaluation of the possessory interest. (see, e.g., Rev. & Tax. Code section 64, as amended from time to time). Thales accordingly agrees on behalf of itself and its permitted successors and assigns to report any change in ownership to the County Assessor, the State Board of Equalization or other public agency as required by law.

(4) Thales further agrees to provide such other information as may be requested by the City to enable the City to comply with any reporting requirements for possessory interests that are imposed by applicable law.

14.6. Payment Does Not Imply Acceptance of Work or Effect Waiver. The granting of any payment by City, or the receipt thereof by Thales, shall in no way lessen the liability of Thales to replace Work, Software, or Proprietary Equipment provided by Thales that does not meet the requirements of this Equipment Contract, although the nonconforming character of such Work, Software or Proprietary Equipment may not have been apparent or detected at the time such payment was made. Proprietary Equipment, Software, materials, components, or services that do not conform to the requirements of this Equipment Contract may be rejected by City prior to Substantial Completion or as provided in the Warranty provisions of Section 10 herein and in such case(s) Thales shall without delay replace/reperform or otherwise make such Work conform to the applicable requirements of this Equipment Contract.

14.7. Thales Personnel.

- a. Services under this Equipment Contract shall be performed by competent personnel under the supervision of and in the employment of Thales, its Affiliates or its approved subcontractors. Thales will comply with City's reasonable requests regarding assignment and reassignment of its personnel, but Thales shall be solely responsible for the supervision of its personnel, including those assigned at City's request. Thales shall commit adequate resources to perform the services and provide the Proprietary Equipment and Software described in this Equipment Contract within the Central Subway Project schedule.
- b. Thales shall not assign to other projects or otherwise remove from performing the Work under this Equipment Contract those persons identified as Key Personnel in Thales's Proposal, without the express written permission of the Engineer such consent not to be unreasonably withheld. If a person who is identified as Key Personnel leaves Thales's employment or becomes unavailable due to circumstances beyond Thales's control, Thales shall immediately provide notice to the Construction Contractor and to the SFMTA and shall within 15 Days of said notice, propose qualified replacement personnel for the Engineer's review and approval. Persons replacing Key Personnel must have equivalent experience and expertise as the Key Personnel they replace.
- c. Thales shall through the Engineer seek the SFMTA's prior approval if it wishes to reassign to another project any person identified in its Proposal as Key Personnel. The SFMTA shall not unreasonably deny such request, as long as such reassignment does not delay, cause a loss or reduction in productivity, or otherwise impair the Work.

14.8. Independent Contractor; Payment of Employment Taxes and Other Expenses.

a. Independent Contractor. Thales and/or any agent or employee of Thales shall be deemed at all times to be an independent contractor and is wholly responsible for the manner in which it performs the services and work under this Equipment Contract. Thales or any agent or employee of Thales shall not have employee status with City and shall not be entitled to participate in any plans, arrangements, or distributions by City pertaining to or in connection with any retirement, health or other benefits that City may offer its employees.

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Thales and/or any agent or employee of Thales is liable for the acts and omissions of itself, its employees and its agents. Thales shall be responsible for all obligations and payments, whether imposed by federal, state or local law, including, but not limited to, FICA, income tax withholdings, unemployment compensation, insurance, and other similar responsibilities related to Thales' performing services and work, or any agent or employee of Thales providing same. Nothing in this Equipment Contract shall be construed as creating an employment or agency relationship between City and Thales or any agent or employee of Thales. Any terms in this Equipment Contract referring to direction from City shall be construed as providing for direction as to policy and the result of Thales' work only, and not as to the means by which such a result is obtained. City does not retain the right to control the means or the method by which Thales performs work under this Equipment Contract. Any terms in this Equipment Contract referring to direction from City shall be construed as providing for direction as to policy and the result of Thales' services only, and not as to the means or methods by which such a result is obtained. Thales shall control the means or the method by which Thales performs services under this Equipment Contract.

- b. Payment of Employment Taxes and Other Expenses. Should City, in its discretion, or a relevant taxing authority such as the Internal Revenue Service or the State Employment Development Division, or both, determine that Thales or any employee of Thales is an employee for purposes of collection of any employment taxes, the amounts payable under this Equipment Contract shall be reduced by amounts equal to both the employee and employer portions of the tax due (and offsetting any credits for amounts already paid by Thales which can be applied against this liability). City shall then forward those amounts to the relevant taxing authority.
- c. **Remittal**. Should a relevant taxing authority determine a liability for past services performed by any employee of Thales for City, upon notification of such fact by City, Thales shall promptly remit such amount due or arrange with City to have the amount due withheld from future payments to Thales under this Equipment Contract (offsetting any amounts already paid by Thales which can be applied as a credit against such liability).
- d. Limited Employment Status. A determination of employment status related to tax status shall be solely for the purposes of the particular tax in question, and for all other purposes of this Equipment Contract, Thales and any of its employees shall not be considered (an) employee(s) of City. Notwithstanding the foregoing, should any court, arbitrator, or administrative authority determine that Thales is an employee for any other purpose, then Thales agrees to a reduction in City's financial liability so that City's total expenses under this Equipment Contract are not greater than they would have been had the court, arbitrator, or administrative authority determined that Thales was not an employee.

14.9. Default; Remedies; Right to Injunctive Relief.

a. **Events of Default.** Each of the following shall constitute an event of default ("Event of Default") under this Equipment Contract:

(1) Either Party, where applicable, fails or refuses to perform or observe any term, covenant or condition contained in any of the following Sections of this Equipment Contract and such failure or refusal materially affects the performance of the Equipment Contract:

- a. Article 4 Compensation
- b. Article 8 Insurance
- c. Article 11 Software and ATCS Documentation License
- d. Section 12.1 Proprietary or Confidential Information
- e. Section 14.3 Submitting False Claims; Monetary Penalties
- f. Section 14.6 Payment Does Not Imply Acceptance of Work or Effect Waiver
- g. Section 14.16 Assignment by Thales
- h. Section 14.20 MacBride Principles Northern Ireland
- i. Section 14.40 Compliance with Laws

(2) Either Party, where applicable, fails or refuses to perform or observe any other material term, covenant or condition contained in this Equipment Contract, and such default continues for a period of thirty (30) Days after written notice thereof from the other Party.

(3) Thales fails or refuses to perform or observe any term, covenant or condition contained in any of the following Sections of this Equipment Contract:

- a. Article 6 Assignment of this Equipment Contract to the Construction Contractor
- b. Article 8 Insurance
- c. Section 12.1 Proprietary or Confidential Information
- d. Section 12.2 Security Sensitive Information
- e. Section 14.3 Submitting False Claims; Monetary Penalties
- f. Section 14.5 Taxes
- g. Section 14.22 Compliance with Americans with Disabilities Act
- h. Section 14.30 Resource Conservation
- i. Section 14.40 Compliance with Laws

(4) Thales (a) admits in writing that it is not paying its debts as they become due, (b) files, or consents by answer or otherwise to the filing against it of a petition for relief or reorganization or arrangement or any other petition in bankruptcy or for liquidation or to take advantage of any bankruptcy, insolvency or other debtors' relief law of any jurisdiction, (c) makes an assignment for the benefit of its creditors, (d) consents to the appointment of a custodian, receiver, trustee or other officer with similar powers of Thales or of any substantial part of Thales' property or (e) takes action for the purpose of any of the foregoing.

(5) A court or government authority enters an order (a) appointing a custodian, receiver, trustee or other officer with similar powers with respect to Thales or with respect to any substantial part of Thales' property, (b) constituting an order for relief or approving a petition for relief or reorganization or arrangement or any other petition in bankruptcy or for liquidation or to take advantage of any bankruptcy, insolvency or other debtors' relief law of any jurisdiction or (c) ordering the dissolution, winding-up or liquidation of Thales.

b. Remedies.

(1) All remedies provided for in this Equipment Contract may be exercised individually or in combination with any other remedy available hereunder or under applicable laws, rules and regulations. The exercise of any remedy shall not preclude or in any way be deemed to waive any other remedy. Nothing in this Equipment Contract shall be construed to restrict or prevent a Party from applying or obtaining injunctive relief before any competent court under any competent jurisdiction, in case of effective or threatened breach or infringement in respect of Confidential Information or intellectual property rights.

(2) On and after any Event of Default, City shall have the right to exercise its legal and equitable remedies, including, without limitation, the right to terminate this Equipment Contract or to seek specific performance of all or any part of this Equipment Contract. In addition, City shall have the right (but no obligation) to cure (or cause to be cured) on behalf of Thales any Event of Default; Thales shall pay to City on demand all costs and expenses incurred by City in effecting such cure, with interest thereon from the date of incurrence at the maximum rate then permitted by law.

(3) The City shall have the right to seek its remedies directly against Thales under this Equipment Contract prior to and following Assignment. Thales agrees that should a court of competent jurisdiction determine that there is insufficient privacy between the City and Thales such that the City is precluded from seeking its remedies directly against Thales under this Equipment Contract, then the City shall have the right to seek those same remedies against Thales as a third party beneficiary of the Construction Contract.

14.10. Termination for Cause. Subsequent to Assignment of this Equipment Contract, termination of this Equipment Contract shall be governed by the relevant provisions of the Construction Contract (See General Provisions, Section 14.01). Prior to Assignment, a Party may terminate this Equipment Contract for cause with written notification to the other Party upon occurrence of the following events:

- a. If the other Party shall commit any material breach of its obligations under this Equipment Contract and fails to take action to remedy such breach within thirty (30) Days from the date of receipt of the notifying Party's written notice to the Party in default, such notice specifying the nature of the breach.
- b. In case of any action or proceeding against the other Party relating to insolvency, bankruptcy, receivership or relief towards creditors, dissolution or winding-up, which are not discharged or in which assets are otherwise not available for completion of the Work within sixty (60) Days therefrom.

14.11. Termination for Convenience.

a. Prior to Assignment, the City may terminate this Equipment Contract at any time during the Term hereof, for convenience and without cause by giving Thales written notice of termination, which shall specify the date on which termination shall become effective. Upon any termination for convenience, Thales shall commence and perform, with diligence, all actions necessary on the part of Thales to effect the termination of the Equipment Contract on the date of termination specified in said notice and to minimize the liability of Thales and City to third parties as a result of termination. Such actions shall include, without limitation:

(1) Halting the performance of all services and other work under this Equipment Contract on the date(s) and in the manner specified by City.

(2) Not placing any further orders or subcontracts for materials, services, Proprietary Equipment or Software other items.

(3) Terminating all existing orders and subcontracts.

(4) Completing performance of any services or work that City designates to be completed prior to the date of termination specified by City.

(5) Taking such action as may be necessary, or as the City may direct, for the protection and preservation of any property related to this Equipment Contract which is in the possession of Thales and in which City has or may acquire an interest.

b. Within thirty (30) days after the specified termination date, Thales shall submit to the SFMTA an invoice, which shall set forth each of the following as a separate line item and the SFMTA shall pay to Thales within thirty (30) days of the date of such invoice or delivery of the materials listed below, as applicable, whichever is later:

(1) The unpaid balance of the price of Proprietary Equipment and Software delivered and services performed up to the date of giving notice of termination that conform to requirements and specifications of this Equipment Contract; and

(2) The unpaid balance of the Proprietary Equipment and Software in manufacture on the date of giving notice of termination or, if less, the costs of modifying the same for reuse or resale; and at City's option, be delivered to City; and

(3) The unpaid portion of the price of Proprietary Equipment and Software manufactured or purchased from third parties prior to the date of the notice of termination, but not yet delivered on the date of giving notice of termination (which Proprietary Equipment and Software shall, at City's option, be delivered to the City);

(4) Costs and expenses resulting from any legally unavoidable commitments due or to become due in respect of sub-contracts and orders entered into and obligations incurred prior to the date of notice of termination,

including demobilization costs and similar expenses, and if termination for convenience is at the City's election, an amount of ten per cent (10%) on such costs and expenses; and

(5) Thales's demobilization costs associated with such termination by the City.

- c. City's payment obligations under this Section shall survive termination of this Equipment Contract.
- d. In no event shall City be liable for costs incurred by Thales or any of its subcontractors or subconsultants after the termination date specified by City, except for those costs specifically enumerated and described in the immediately preceding Paragraph 14.11(b).
- e. Subsequent to Assignment, the City may require the Construction Contractor to terminate this Equipment Contract for convenience as provided in the Construction Contract, General Provisions, Section 14.03. In such event, Thales shall submit for documentation of its costs to the Construction Contractor (which shall forward them to the Engineer) in the same manner as provided in Section 41.11.b, above, for the City's review and payment in accordance with the requirements of this Equipment Contract.

14.12. Conflict of Interest. Through its execution of this Equipment Contract, Thales acknowledges that it is familiar with the provision of Section 15.103 of the City's Charter, Article III, Chapter 2 of City's Campaign and Governmental Conduct Code, and Section 87100 et seq. and Section 1090 et seq. of the Government Code of the State of California, and certifies that it does not know of any facts which constitutes a violation of said provisions and agrees that it will immediately notify the City if it becomes aware of any such fact during the Term of this Equipment Contract.

14.13. Notices to the Parties. Notices. All notices, consents, directions, approvals, instructions, requests and other communications to Thales and/or to the SFMTA regarding the interpretation application, suspension, termination breach or other provision of Equipment Contract shall be in writing, shall be addressed to the respective persons and addresses set forth below. All notices to the Construction Contractor shall be addressed to the person and address identified in the Construction Contract to receive notices on behalf of the Construction Contractor. All notices shall be (a) deposited in the U.S. mail, first class, certified with return receipt requested and with appropriate postage, (b) hand delivered or sent via facsimile or email PDF (to the facsimile number and/or email address provided below). All communications sent in accordance with this Section shall become effective on the date of actual receipt or as provided in the California Civil Code, whichever is provides the shorter notice period. From time to time SFMTA, Thales, or the Construction Contractor may designate a new address for purposes of this Section by notice to the SFMTA, Thales and the Construction Contractor. Unless otherwise indicated elsewhere in this Equipment Contract, all formal written notices sent by the Parties shall be signed by an authorized representative of the sending Party, or by facsimile immediately confirmed in writing. All notices under this Section of the Equipment Contract shall be considered as validly served if mailed in the form of pre-paid registered letter, return receipt requested, and shall be addressed as follows:

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To City:	Municipal Transportation Agency
	1 South Van Ness Avenue, 3rd floor
	San Francisco, CA 94102
	Fax No. 415-701-4300
	Attention: John Funghi,

with a copy to:

Attention: John Funghi, Program Manager Central Subway Project E-mail: john.funghi@SFMTA.org Municipal Transportation Agency 1 South Van Ness Avenue, 3rd floor San Francisco, CA 94102 Fax No. 415-701-4300 Attention: Shahnam Farhangi

To Thales:

Thales Transport & Security, Inc. 5700 Corporate Drive, Suite 750 Pittsburgh, PA 15237

SFMTA Account Manager

Capital Projects and Construction E-mail: shahnam.farhangi@sfmta.com

with a copy to:

Thales Transport & Security, Inc. Attn: Legal & Contracts 317 Madison Avenue, Suite 1600 New York, NY 10017

This Section shall only apply to formal legal notices between the Parties, not to the Parties' communications made in the course of performing the Work.

Any notice of default must be sent by registered mail.

14.14. Delivery, Title and Risk of Loss in Shipping and Storage.

- a. Thales shall bear all risk of loss of Proprietary Equipment, including loss during shipping to a storage facility (as provided in Section 4.8.c), transport to the Site, and other times in which Thales has control of said Proprietary Equipment. Thales shall bear all risk of loss of Software, including loss during shipping and installation, until the work under the Construction Contract is completed and accepted by the City. Thales shall, for its full replacement value, insure the Proprietary Equipment against loss or damage occurring while Thales has possession and/or control of the Proprietary Equipment.
- b. Title to any Software, Documentation and other confidential information or data delivered to the City under this Equipment Contract shall remain vested solely in Thales or its licensors.

14.15. Subcontracting. Thales is prohibited from subcontracting this Equipment Contract or any part of it unless City first approves such subcontracting in writing, which shall not unreasonably be withheld, provided that Thales will continue to be liable for the obligations of the subcontractor under this Equipment

Contract. Neither Party shall, on the basis of this Equipment Contract, contract on behalf of or in the name of the other Party. An agreement made in violation of this provision shall confer no rights on any Party and shall be null and void. Notwithstanding all of the foregoing, Thales is hereby granted authority to subcontract all or any portions of the Work under this Equipment Contract to Thales Affiliates.

14.16. Assignment by Thales. The Work to be performed by Thales under this Equipment Contract is proprietary in nature (and therefore not available from any other vendor), and except as provided in this Equipment Contract, neither this Equipment Contract nor any duties or obligations hereunder may be assigned or delegated by Thales unless first approved by City by written instrument lawfully executed and approved. Notwithstanding the foregoing, Thales may assign any or all of its rights and obligations under this Equipment Contract to a Thales Affiliate with the prior consent of the SFMTA, such consent not to be unreasonably withheld.

14.17. Non-Waiver of Rights. The omission by either Party at any time to enforce any default or right reserved to it, or to require performance of any of the terms, covenants, or provisions hereof by the other Party at the time designated, shall not be a waiver of any such default or right to which the Party is entitled, nor shall it in any way affect the right of the Party to enforce such provisions thereafter.

14.18. Nondiscrimination; Penalties.

- a. Thales Shall Not Discriminate. In the performance of this Equipment Contract, Thales agrees not to discriminate against any employee, City and County employee working with such Thales or subcontractor, applicant for employment with such Thales or subcontractor, or against any person seeking accommodations, advantages, facilities, privileges, services, or membership in all business, social, or other establishments or organizations, on the basis of the fact or perception of a person's race, color, creed, religion, national origin, ancestry, age, height, weight, sex, sexual orientation, gender identity, domestic partner status, marital status, disability or Acquired Immune Deficiency Syndrome or HIV status (AIDS/HIV status), or association with members of such protected classes, or in retaliation for opposition to discrimination against such classes.
- b. Subcontracts. Thales shall incorporate by reference in all subcontracts the provisions of §§12B.2(a), 12B.2(c)-(k), and 12C.3 of the San Francisco Administrative Code (copies of which are available from the SFMTA) and shall require all subcontractors to comply with such provisions. Thales' failure to comply with the obligations in this Section shall constitute a material breach of this Equipment Contract. Thales' failure to comply with the obligations of this Section shall constitute a material breach of this Equipment Contract.
- c. Nondiscrimination in Benefits. Thales does not as of the date of this Equipment Contract and will not during the term of this Equipment Contract, in any of its operations in San Francisco, on real property owned by San Francisco, or where work is being performed for the City elsewhere in the United States, discriminate in the provision of bereavement leave, family medical leave, health benefits, membership or membership discounts, moving expenses, pension and retirement benefits or travel benefits, as well as any benefits other than the benefits specified above, between employees with

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domestic partners and employees with spouses, and/or between the domestic partners and spouses of such employees, where the domestic partnership has been registered with a governmental entity pursuant to state or local law authorizing such registration, subject to the conditions set forth in §12B.2(b) of the San Francisco Administrative Code.

d. Condition to Equipment Contract. As a condition to this Equipment Contract, Thales shall execute the "Chapter 12B Declaration: Nondiscrimination in Contracts and Benefits" form (form HRC-12B-101) with supporting documentation and secure the approval of the form by the San Francisco Human Rights Commission.

14.19. Incorporation of Administrative Code Provisions by Reference. The provisions of Chapters 12B and 12C of the San Francisco Administrative Code are incorporated in this Section by reference and made a part of this Equipment Contract as though fully set forth herein. Thales shall comply fully with and be bound by all of the provisions that apply to this Equipment Contract under such Chapters, including but not limited to the remedies provided in such Chapters. Without limiting the foregoing, Thales understands that pursuant to sections 12B.2(h) and 12C.3(g) of the San Francisco Administrative Code, a penalty of \$50 for each person for each calendar day during which such person was discriminated against in violation of the provisions of this Equipment Contract may be assessed against Thales and/or deducted from any payments due Thales.

14.20. MacBride Principles - Northern Ireland. Pursuant to San Francisco. Administrative Code §12F.5, the City and County of San Francisco urges companies doing business in Northern Ireland to move towards resolving employment inequities, and encourages such companies to abide by the MacBride Principles. The City and County of San Francisco urges San Francisco companies to do business with corporations that abide by the MacBride Principles. By signing below, the person executing this Equipment Contract on behalf of Thales acknowledges and agrees that he or she has read and understood this Section.

14.21. Drug-Free Workplace Policy. Thales acknowledges that pursuant to the Federal Drug-Free Workplace Act of 1989, the unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited on City premises. Thales agrees that any violation of this prohibition by Thales, its employees, agents or assigns will be deemed a material breach of this Equipment Contract.

14.22. Compliance with Americans with Disabilities Act. Thales acknowledges that, pursuant to the Americans with Disabilities Act (ADA), programs, services and other activities provided by a public entity to the public, whether directly or through a Thales, must be accessible to the disabled public. Thales shall provide the Services specified in this Equipment Contract in a manner that complies with the ADA and any and all other applicable federal, state and local disability rights legislation. Thales agrees not to discriminate against disabled persons in the provision of services, benefits or activities provided under this Equipment Contract, and further agrees that any violation of this prohibition on the part of Thales, its employees, agents or assigns will constitute a material breach of this Equipment Contract.

14.23. Sunshine Ordinance. In accordance with San Francisco Administrative Code §67.24(e), contracts, Thales' bids, responses to solicitations and all other records of communications between City and persons or firms seeking contracts, shall be open to inspection immediately after a contract has been awarded. Nothing in this provision requires the disclosure of a private person or organization's net worth or other proprietary financial data submitted for qualification for a contract or other benefit until and unless that person or organization is awarded the contract or benefit. Information provided which is covered by this paragraph will be made available to the public upon request.

Limitations on Contributions. Through execution of this 14.24. Equipment Contract, Thales acknowledges that it is familiar with section 1.126 of the City's Campaign and Governmental Conduct Code, which prohibits any person who contracts with the City for the rendition of personal services, for the furnishing of any Proprietary Equipment, Software or other materials or supplies, for the sale or lease of any land or building, or for a grant, loan or loan guarantee, from making any campaign contribution to (1) an individual holding a City elective office if the contract must be approved by the individual, a board on which that individual serves, or the board of a state agency on which an appointee of that individual serves, (2) a candidate for the office held by such individual, or (3) a committee controlled by such individual, at any time from the commencement of negotiations for the contract until the later of either the termination of negotiations for such contract or six months after the date the contract is approved. Thales acknowledges that the foregoing restriction applies only if the contract or a combination or series of contracts approved by the same individual or board in a fiscal year have a total anticipated or actual value of \$50,000 or more. Thales further acknowledges that the prohibition on contributions applies to each prospective party to the contract; each member of Thales' board of directors; Thales' chairperson, chief executive officer, chief financial officer and chief operating officer; any person with an ownership interest of more than 20 percent in Thales; any subcontractor listed in the bid or contract; and any committee that is sponsored or controlled by Thales. Additionally, Thales acknowledges that Thales must inform each of the persons described in the preceding sentence of the prohibitions contained in Section 1.126. Thales further agrees to provide to City the names of each person, entity or committee described above.

14.25. Requiring Minimum Compensation for Covered Employees.

- a. Thales agrees to comply fully with and be bound by all of the provisions of the Minimum Compensation Ordinance (MCO), as set forth in San Francisco Administrative Code Chapter 12P (Chapter 12P), including the remedies provided, and implementing guidelines and rules. The provisions of Sections 12P.5 and 12P.5.1 of Chapter 12P are incorporated herein by reference and made a part of this Equipment Contract as though fully set forth. The text of the MCO is available on the web at www.sfgov.org/olse/mco. A partial listing of some of Thales' obligations under the MCO is set forth in this Section. Thales is required to comply with all the provisions of the MCO, irrespective of the listing of obligations in this Section.
- b. The MCO requires Thales to pay Thales' employees a minimum hourly gross compensation wage rate and to provide minimum compensated and uncompensated time off. The minimum wage rate may change from year to year and Thales is obligated to keep informed of the then-current requirements.

Any subcontract entered into by Thales shall require the subcontractor to comply with the requirements of the MCO and shall contain contractual obligations substantially the same as those set forth in this Section. It is Thales' obligation to ensure that any subcontractors of any tier under this Equipment Contract comply with the requirements of the MCO. If any subcontractor under this Equipment Contract fails to comply, City may pursue any of the remedies set forth in this Section against Thales.

- c. Thales shall not take adverse action or otherwise discriminate against an employee or other person for the exercise or attempted exercise of rights under the MCO. Such actions, if taken within 90 days of the exercise or attempted exercise of such rights, will be rebuttably presumed to be retaliation prohibited by the MCO.
- d. Thales shall maintain employee and payroll records as required by the MCO. If Thales fails to do so, it shall be presumed that Thales paid no more than the minimum wage required under State law.
- e. The City is authorized to inspect Thales' job sites and conduct interviews with employees and conduct audits of Thales
- f. Thales' commitment to provide the Minimum Compensation is a Proprietary Equipment material element of the City's consideration for this Equipment Contract. The City in its sole discretion shall determine whether such a breach has occurred. The City and the public will suffer actual damage that will be impractical or extremely difficult to determine if Thales fails to comply with these requirements. Thales agrees that the sums set forth in Section 12P.6.1 of the MCO as liquidated damages are not a penalty, but are reasonable estimates of the loss that the City and the public will incur for Thales' noncompliance. The procedures governing the assessment of liquidated damages shall be those set forth in Section 12P.6.2 of Chapter 12P.
- g. Thales understands and agrees that if it fails to comply with the requirements of the MCO, the City shall have the right to pursue any rights or remedies available under Chapter 12P (including liquidated damages), under the terms of the contract, and under applicable law. If, within 30 days after receiving written notice of a breach of this Equipment Contract for violating the MCO, Thales fails to cure such breach or, if such breach cannot reasonably be cured within such period of 30 days, Thales fails to commence efforts to cure within such period, or thereafter fails diligently to pursue such cure to completion, the City shall have the right to pursue any rights or remedies available under applicable law, including those set forth in Section 12P.6(c) of Chapter 12P. Each of these remedies shall be exercisable individually or in combination with any other rights or remedies available to the City.
- h. Thales represents and warrants that it is not an entity that was set up, or is being used, for the purpose of evading the intent of the MCO.
- i. If Thales is exempt from the MCO when this Equipment Contract is executed because the cumulative amount of agreements with this department for the fiscal year is less than \$25,000, but Thales later enters into an agreement or agreements that cause Thales to exceed that amount in a fiscal year, Thales shall thereafter be required to comply with the MCO under this Equipment

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Contract. This obligation arises on the effective date of the agreement that causes the cumulative amount of agreements between Thales and this department to exceed \$25,000 in the fiscal year.

14.26. Requiring Health Benefits for Covered Employees. Thales agrees to comply fully with and be bound by all of the provisions of the Health Care Accountability Ordinance (HCAO), as set forth in San Francisco Administrative Code Chapter 12Q, including the remedies provided, and implementing regulations, as the same may be amended from time to time. The provisions of section 12Q.5.1 of Chapter 12Q are incorporated by reference and made a part of this Equipment Contract as though fully set forth herein. The text of the HCAO is available on the web at www.sfgov.org/olse. Capitalized terms used in this Section and not defined in this Equipment Contract shall have the meanings assigned to such terms in Chapter 12Q.

- a. For each Covered Employee, Thales shall provide the appropriate health benefit set forth in Section 12Q.3 of the HCAO. If Thales chooses to offer the health plan option, such health plan shall meet the minimum standards set forth by the San Francisco Health Commission.
- b. Notwithstanding the above, if Thales is a small business as defined in Section 12Q.3(e) of the HCAO, it shall have no obligation to comply with part (a) above.
- c. Thales' failure to comply with the HCAO shall constitute a material breach of this agreement. City shall notify Thales if such a breach has occurred. If, within 30 days after receiving City's written notice of a breach of this Equipment Contract for violating the HCAO, Thales fails to cure such breach or, if such breach cannot reasonably be cured within such period of 30 days, Thales fails to commence efforts to cure within such period, or thereafter fails diligently to pursue such cure to completion, City shall have the right to pursue the remedies set forth in 12Q.5.1 and 12Q.5(f)(1-6). Each of these remedies shall be exercisable individually or in combination with any other rights or remedies available to City.
- d. Any Subcontract entered into by Thales shall require the Subcontractor to comply with the requirements of the HCAO and shall contain contractual obligations substantially the same as those set forth in this Section 14.27. Thales shall notify City's Office of Equipment Contract Administration when it enters into such a Subcontract and shall certify to the Office of Equipment Contract Administration that it has notified the Subcontractor of the obligations under the HCAO and has imposed the requirements of the HCAO on Subcontractors' compliance with this Chapter. If a Subcontractor fails to comply, the City may pursue the remedies set forth in this Section against Thales based on the Subcontractor's failure to comply, provided that City has first provided Thales with notice and an opportunity to obtain a cure of the violation.
- e. Thales shall not discharge, reduce in compensation, or otherwise discriminate against any employee for notifying City with regard to Thales' noncompliance or anticipated noncompliance with the requirements of the HCAO, for opposing any practice proscribed by the HCAO, for participating in proceedings related to

the HCAO, or for seeking to assert or enforce any rights under the HCAO by any lawful means.

- f. Thales represents and warrants that it is not an entity that was set up, or is being used, for the purpose of evading the intent of the HCAO.
- g. Thales shall maintain employee and payroll records in compliance with the California Labor Code and Industrial Welfare Commission orders, including the number of hours each employee has worked on the City Equipment Contract.
- h. Thales shall keep itself informed of the current requirements of the HCAO.
- i. Thales shall provide reports to the City in accordance with any reporting standards promulgated by the City under the HCAO, including reports on Subcontractors and Subtenants, as applicable.
- j. Thales shall provide City with access to records pertaining to compliance with HCAO after receiving a written request from City to do so and being provided at least ten business days to respond.
- k. Thales shall allow City to inspect Thales' job sites and have access to Thales' employees in order to monitor and determine compliance with HCAO.
- I. City may conduct random audits of Thales to ascertain its compliance with HCAO. Thales agrees to cooperate with City when it conducts such audits.
- m. If Thales is exempt from the HCAO when this Equipment Contract is executed because its amount is less than \$25,000 (\$50,000 for nonprofits), but Thales later enters into an agreement or agreements that cause Thales' aggregate amount of all agreements with City to reach \$75,000, all the agreements shall be thereafter subject to the HCAO. This obligation arises on the effective date of the agreement that causes the cumulative amount of agreements between Thales and the City to be equal to or greater than \$75,000 in the fiscal year.

14.27. Prohibition on Political Activity with City Funds. In accordance with San Francisco Administrative Code Chapter 12.G, Thales may not participate in, support, or attempt to influence any political campaign for a candidate or for a ballot measure (collectively, "Political Activity") in the performance of the Services provided under this Equipment Contract. Thales agrees to comply with San Francisco Administrative Code Chapter 12.G and any implementing rules and regulations promulgated by the City's Controller. The terms and provisions of Chapter 12.G are incorporated herein by this reference. In the event Thales violates the provisions of this Section, the City may, in addition to any other rights or remedies available hereunder, (i) terminate this Equipment Contract, and (ii) prohibit Thales from bidding on or receiving any new City contract for a period of two (2) years. The Controller will not consider Thales' use of profit as a violation of this Section.

14.28. English Required. All data, documents, descriptions, diagrams, instructions and correspondence shall be in the English language.

14.29. Protection of Private Information. Thales agrees to comply fully with and be bound by all of the provisions of Chapter 12M of the San Francisco

Administrative Code (the "Protection of Private Information Ordinance"), including the remedies provided. The provisions of the Protection of Private Information Ordinance are incorporated herein by reference and made a part of this Equipment Contract as though fully set forth. Capitalized terms used in this Section and not defined in this Equipment Contract shall have the meanings assigned to such terms in the Protection of Private Information Ordinance. Consistent with the requirements of the Protection of Private Information Ordinance, Thales agrees to all of the following:

- a. Neither Thales nor any of its subcontractors shall disclose Private Information obtained from the City in the performance of this Equipment Contract to any other subcontractor, person, or other entity, unless one of the following is true:
 - (1) The disclosure is authorized by this Equipment Contract;

(2) Thales received advance written approval from the Contracting Department to disclose the information; or

- (3) The disclosure is required by law or judicial order.
- b. Any disclosure or use of Private Information authorized by this Equipment Contract shall be in accordance with any conditions or restrictions stated in this Equipment Contract. Any disclosure or use of Private Information authorized by a Contracting Department shall be in accordance with any conditions or restrictions stated in the approval.
- c. Private Information means any information that: (1) could be used to identify an individual, including without limitation, name, address, social security number, medical information, financial information, date and location of birth, and names of relatives; or (2) the law forbids any person from disclosing.
- d. Any failure of Thales to comply with the Nondisclosure of Private Information Ordinance shall be a material breach of this Equipment Contract. In such an event, in addition to any other remedies available to it under equity or law, the City may terminate this Equipment Contract, debar Thales, or bring a false claim action against Thales.

14.30. Resource Conservation. Chapter 5 of the San Francisco Environment Code ("Resource Conservation") is incorporated herein by reference. Failure by Thales to comply with any of the applicable requirements of Chapter 5 will be deemed a material breach of contract.

14.31. Tropical Hardwood and Virgin Redwood Ban. Pursuant to §804(b) of the San Francisco Environment Code, the City and County of San Francisco urges its vendors and contractors not to import, purchase, obtain, or use for any purpose, any tropical hardwood, tropical hardwood wood product, virgin redwood or virgin redwood wood product.

14.32. Preservative-treated Wood Containing Arsenic. Thales may not purchase preservative-treated wood products containing arsenic in the performance of this Equipment Contract unless an exemption from the requirements of Chapter 13 of the San Francisco Environment Code is obtained from the Department of the Environment under Section 1304 of the Code. The term

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"preservative-treated wood containing arsenic" means wood treated with a preservative that contains arsenic, elemental arsenic, or an arsenic copper combination, including, but not limited to, chromate copper arsenate preservative, ammoniacal copper zinc arsenate preservative, or ammoniacal copper arsenate preservative. Thales may purchase preservative-treated wood products on the list of environmentally preferable alternatives prepared and adopted by the Department of the Environment. This provision does not preclude Thales from purchasing preservative-treated wood containing arsenic for saltwater immersion. The term "saltwater immersion" means a pressure-treated wood that is used for construction purposes or facilities that are partially or totally immersed in saltwater.

14.33. Food Service Waste Reduction Requirements. Thales agrees to comply fully with and be bound by all of the provisions of the Food Service Waste Reduction Ordinance, as set forth in San Francisco Environment Code Chapter 16. including the remedies provided, and implementing guidelines and rules. The provisions of Chapter 16 are incorporated herein by reference and made a part of this Equipment Contract as though fully set forth. By entering into this Equipment Contract, Thales agrees that if it breaches this provision, City will suffer actual damages that will be impractical or extremely difficult to determine; further, Thales agrees that the sum of one hundred dollars (\$100.00) liquidated damages for the first breach, two hundred dollars (\$200.00) liquidated damages for the second breach in the same year, and five hundred dollars (\$500.00) liquidated damages for-subsequent breaches in the same year is a reasonable estimate of the damage that City will incur based on the violation, established in light of the circumstances existing at the time this Equipment Contract was made. Such amounts shall not be considered a penalty, but rather agreed monetary damages sustained by City because of Thales' failure to comply with this provision.

14.34. Audit and Inspection of Records. Thales agrees to maintain and make available to the City, during regular business hours, accurate books and accounting records relating to its work under this Equipment Contract. Thales will permit City to audit, examine and make excerpts and transcripts from such books and records, and to make audits of all invoices, materials, payrolls, records or personnel and other data related to all other matters covered by this Equipment Contract, whether funded in whole or in part under this Equipment Contract. Thales shall maintain such data and records in an accessible location and condition for a period of not less than five years after final payment under this Equipment Contract or until after final audit has been resolved, whichever is later. The State of California or any federal agency having an interest in the subject matter of this Equipment Contract shall have the same rights conferred upon City by this Section.

14.35. Dispute Resolution.

a. Prior to Assignment, for any dispute involving a question of fact, the aggrieved Party shall furnish the other Party with a notice of dispute within fifteen (15) Days of the determination of the dispute. The Party receiving a notice of dispute shall submit a written reply with fourteen (14) Days of delivery of the notice. The notice and response shall contain the following: (a) a statement of the Party's position and a summary of the arguments supporting that position, and (b) any evidence supporting the Party's position. Disputes arising in the performance of this Equipment Contract that are not resolved by negotiation between the Parties shall be decided by a competent court of jurisdiction in California. If agreed to by both Parties, disputes may be resolved by a mutually agreed to alternative dispute resolution process.

b. Following Assignment, and throughout the term of the Construction Contract, disputes and claims shall be resolved as provided in the Construction Contract. Thales may invoke the partnering and dispute resolution process between it, SFMTA and the Construction Contractor, using the procedures for partnering set out in Article 16 of the Construction Contract, concerning any dispute regarding schedule, access to the Site, and payment. Tutor shall keep the SFMTA informed of any claim or dispute concerning or between it and Thales.

14.36. Modification of Agreement. This Equipment Contract may not be modified, nor may compliance with any of its terms be waived, except by as provided for herein by written instrument lawfully executed and approved. Any modification of this Equipment Contract must be signed by the City's Director of Transportation (chief executive of the SFMTA) and the President or Corporate Counsel of Thales.

14.37. Agreement Made in California; Venue. The laws of the State of California shall govern the formation, interpretation and performance of this Equipment Contract. Venue for all litigation relative to the formation, interpretation and performance of this Equipment Contract shall be in San Francisco.

14.38. Construction of Agreement.

- a. All paragraph captions, headings and titles are for reference only and shall not be considered in construing this Equipment Contract.
- b. This Equipment Contract has been drafted through a cooperative effort of the City and Thales, and each has had the opportunity to have the Equipment Contract reviewed and revised by legal counsel of its choosing. The Parties acknowledge and agree that neither of them shall be considered the sole drafter. The Parties further agree that any presumption or rule of interpretation or construction of contracts that a document or ambiguities in a document shall be construed against the drafter of the document shall not apply to this Equipment Contract.
- c. In the event of any inconsistency between the provisions of any Appendix or other document incorporated by reference and the provisions of this document, the provisions of this document shall prevail.
- d. This Equipment Contract may be modified only as provided in Section 14.36.
- e. To the extent that any of the express provisions of this Equipment Contract conflict with the terms and conditions of the Construction Contract, the express provisions of this Equipment Contract shall govern the Work specifically described in this Equipment Contract (that is, the provision of Proprietary Equipment). As to all other matters and issues not expressly addressed in this Equipment Contract and ATCS work that is not under this Equipment Contract, the terms and conditions of the Construction Contract shall govern.
- f. Work under this Equipment Contract shall be performed in accordance with the Project Schedule established under the Construction Contract and approved by

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the SFMTA. The ATCS Schedule shall be incorporated into the Project Schedule through a Contract Modification to the Construction Contract by which this Equipment Contract is assigned to the Construction Contractor. The SFMTA shall provide notice to Thales concerning any change to the Project Schedule that impacts the ATCS Schedule, and any conflicts shall be resolved by a conference of the SFMTA, Tutor (the Construction Contractor) and Thales.

g.

14.39. Entire Agreement. This Equipment Contract, its Included Appendices, and any other documents incorporated by reference in this Equipment Contract constitute the entire agreement between the Parties as to the matters specifically set out herein. This Equipment Contract memorializes and sets out all intended rights and obligations and supersedes any and all previous agreements, correspondence, and understandings between them with respect to the subject matter hereof.

14.40. Compliance with Laws. Thales shall keep itself fully informed of the City's Charter, codes, ordinances and regulations of the City and of all state, and federal laws in any manner affecting the performance of this Equipment Contract, and must at all times comply with such local codes, ordinances, and regulations and all applicable laws as they may be amended from time to time.

14.41. Severability. Should the application of any provision of this Equipment Contract to any particular facts or circumstances be found by a court of competent jurisdiction to be invalid or unenforceable, then (a) the validity of other provisions of this Equipment Contract shall not be affected or impaired thereby, and (b) such provision shall be enforced to the maximum extent possible so as to effect the intent of the Parties and shall be reformed without further action by the Parties to the extent necessary to make such provision valid and enforceable.

14.42. Federal Agreement Requirements. Thales shall comply with all applicable federal contracting requirements, including but not limited to those set out in Appendix A to this Equipment Contract, which are incorporated by reference as if fully set out here. If there is any conflict between any federal contracting requirement and any provision of this Equipment Contract, the federal requirement shall prevail. The SFMTA has not adopted the contract requirements of the Federal Acquisition Regulations (FAR). As a department of the City and County of San Francisco, exercising its home rule authority granted by the California constitution, the SFMTA shall not be bound by any provision of the FAR.

14.43. Force Majeure.

a. Neither Party shall by reason of Force Majeure, be entitled to terminate this Equipment Contract nor shall either Party have any claim for damages against the other for any non performance or delay under the Equipment Contract as a result of such Force Majeure. If the performance in whole or part of any obligation under this Equipment Contract is delayed by reason of any such event of Force Majeure for a period exceeding three (3) months, the Parties shall discuss and review in good faith the desirability and conditions of terminating this Equipment Contract. b. The prevented Party shall, as soon as it becomes aware of an event of Force Majeure, immediately inform the other Party of the nature and the beginning and the end of the Force Majeure circumstances preventing the performance of the Equipment Contract.

14.44. Surviving Rights and Duties. This Section 14.44 and the following Sections of this Equipment Contract shall survive Assignment, termination or expiration of this Equipment Contract: Article 7 (Indemnity), Article 11 (Software), Section 12.1 (Proprietary or Confidential Information), Section 12.2 (Security Sensitive Information), 14.3 (Submitting False Claims; Monetary Penalties), Section 14.29 (Protection of Private Information)14.34 (Audit and Inspection of Records), Section 14.37 (Equipment Contract Made in California, Venue).

14.45. Signatures, Execution by Counterparts. This Equipment Contract may be executed in any number of counterparts all of which taken together shall constitute one and the same instrument, and either of the Parties may execute this Equipment Contract by signing any such counterpart. Delivery may be completed by the Party concerned transmitting to the other Party a facsimile copy of the counterpart signed by such Party. Any Party delivering any executed counterpart of this Equipment Contract as provided herein shall confirm execution by delivering by first class mail or courier an original of such executed counterpart to the other Party.

15. INCLUDED APPENDICES.

The Appendices listed below are hereby incorporated by reference into the Equipment Contract as if fully set out therein:

Appendix A.	Federal Contract Requirements
Appendix B.	Description of Proprietary Equipment, Software and Services
	to be Provided by Thales
Appendix C.	Pricing and Milestone Payment Schedule
Appendix D	Sample Invoice
Appendix E.	HRC Progress Payment Form
Appendix F	Mutual Nondisclosure Agreement (in re Confidential Information)
Appendix G	Software Escrow Agreement
Appendix H	ATCS Specifications
Appendix I	Project Schedule
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16. APPROVAL BY COUNTERPARTS .

This Implementation Contract may be executed in any number of counterparts all of which taken together shall constitute one and the same instrument, and either of the Parties may execute this Implementation Contract by signing any such counterpart. Delivery may be completed by the Party concerned transmitting to the other Party a facsimile or electronic copy of the counterpart signed by such Party. Any Party delivering any executed counterpart of this Implementation Contract as provided herein shall confirm execution by delivering by first class mail or courier an original of such executed counterpart to the other Party.

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IN WITNESS WHEREOF, the Parties hereto have executed this Equipment Contract on the day first mentioned above.

San Francisco Municipal	Thales Transport & Security, Inc.
Transportation Agency	
APPROVED:	By signing this Equipment Contract, Thales certifies that it complies with the requirements
	of the Minimum Compensation Ordinance, which entitle Covered Employees to certain minimum hourly wages and compensated and
EDWARD D. REISKIN Director of Transportation	uncompensated time off.
	Thales has read and understood
Authorized by:	Section 14.20, the City's statement urging companies doing business in Northern Ireland
SAN FRANCISCO MUNICIPAL	to move towards resolving employment
TRANSPORTATION AGENCY BOARD OF	inequities, encouraging compliance with the
DIRECTORS	MacBride Principles, and urging San
Attest:	Francisco companies to do business with corporations that abide by the MacBride
	Principles.
Adopted by Resolution No. <u>13 - 260</u> DECEMBER 3, 2013	
	(DPC)
R. Boomer	CR Brohm.
1.000	JOHN BROHM
Secretary, San Francisco Municipal	President & CEO
Transportation Agency	Thales Transport & Security, Inc.
	5700 Corporate Drive, Suite 750,
	Pittsburgh, PA 15237
	Fax No. 412-366-8817
Approved as to Form:	City you don now how
Dennis J. Herrera	City vendor number:
City Attorney	
CALL	
By: Kout How 2.27.2014	
Robert K. Stone	
Deputy City Attorney CAO n:\ptc\as2013\1000387\00889657.doc FINAL 120513	
One 1. protosos 10000000 10000000 1000 11100 120010	

APPENDIX A

FEDERAL CONTRACT REQUIREMENTS

1. COMPLIANCE AND PRECEDENCE

Thales shall comply with all applicable federal contracting requirements. This Agreement is subject to contract requirements imposed on contracts funded by the Federal Transit Agency ("FTA"), including but not limited to the contract requirements set out in this Appendix A of this Agreement. If there is any conflict between any federal contracting requirement and any provision of this Agreement, the federal requirement shall prevail. The SFMTA has not adopted the contract requirements of the Federal Acquisition Regulations (FAR). As department of the City and County of San Francisco, exercising its home rule authority under the California constitution, the SFMTA shall not be bound by any provision of the FAR.

2. **DEFINITIONS**

The following terms shall have the meanings stated in this Section for purposes of the requirements of this Appendix A.

A. **Agreement** means the Equipment Contract for procurement of Proprietary Equipment for the Central Subway ATCS.

B. **Approved Project Budget** means the most recent statement, approved by the FTA, of the costs of the Project, the maximum amount of Federal assistance for which the City is currently eligible, the specific tasks (including specified contingencies) covered, and the estimated cost of each task.

C. **Contractor or Thales** means the individual or entity awarded a third party contract financed in whole or in part with Federal assistance originally derived from FTA.

D. **Cooperative Agreement** means the instrument by which FTA awards Federal assistance to a specific Recipient to support a particular Project or Program, and in which FTA takes an active role or retains substantial control.

E. **Federal Transit Administration (FTA)** is an operating administration of the U.S. DOT.

F. **FTA Directive** means any FTA circular, notice, order or guidance providing information about FTA's programs, application processing procedures, and Project management guidelines. In addition to FTA directives, certain U.S. DOT directives also apply to the Project.

G. **Grant Agreement** means the instrument by which FTA awards Federal assistance to a specific Recipient to support a particular Project, and in which FTA does not take an active role or retain substantial control, in accordance with 31 U.S.C. § 6304.

H. **Government** means the United States of America and any executive department or agency thereof.

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I. **Project** means the task or set of tasks listed in the Approved Project Budget, and any modifications stated in the Conditions to the Grant Agreement or Cooperative Agreement applicable to the Project. In the case of the formula assistance program for urbanized areas, for elderly and persons with disabilities, and non-urbanized areas, 49 U.S.C. §§ 5307, 5310, and 5311, respectively, the term "Project" encompasses both "Program" and "each Project within the Program," as the context may require, to effectuate the requirements of the Grant Agreement or Cooperative Agreement.

J. **Recipient** means any entity that receives Federal assistance directly from FTA to accomplish the Project. The term "Recipient" includes each FTA "Grantee" as well as each FTA Recipient of a Cooperative Agreement. For the purpose of this Agreement, Recipient is the City.

K. **Secretary** means the U.S. DOT Secretary, including his or her duly authorized designee.

L. **Third Party Agreement** means a contract or purchase order awarded by the Recipient to a vendor or Thales, financed in whole or in part with Federal assistance awarded by FTA.

M. Third Party Subcontract means a subcontract at any tier entered into by Thales or third party subcontractor, financed in whole or in part with Federal assistance originally derived from FTA.

N. **U.S. DOT** is the acronym for the U.S. Department of Transportation, including its operating administrations.

3. BUY AMERICA

A. The Parties agree that the ATCS is a "System" as that term is defined in 49 CFR § 661.3 and an "End Product" subject to Buy America "Rolling Stock" requirements and certification under 49 CFR § 661.3, Appendix A, ¶ (1). The ATCS is also a "Component" as that term is defined under Buy America regulations at 49 CFR 661.11, Appendix C. The Parties agree that the elements of the ATCS that Thales shall supply under this Agreement will not comprise an entire ATCS; Thales will only supply proprietary Subcomponents of the ATCS, as the term Subcomponent is defined in 49 CFR § 661.11(c). Thales shall comply with all provisions of Buy America requirements applicable to Subcomponents for an ATCS.

B. The parties agree that the nonproprietary subcomponents of the ATCS will be procured and installed under the Construction Contract, and the Construction Contractor will install the ATCS as a System (Component) of the Central Subway at the project site (that is, in the stations and tunnels of the project), in accordance with the definition of installation provided in 49 CFR §661.11(r).

C. Thales certifies that the ATCS as finally installed under the Construction Contract shall meet the Buy America requirements applicable to train control equipment under the Rolling Stock requirements set out in 49 CFR § 661.3, Appendix A, ¶ (1) and 49 CFR § 661.11, Appendix C. To the extent applicable, Thales agrees to comply with all Buy America requirements for a System, an End Product and a Component, as provided in the authorities referenced in this Section 3. This Agreement and the Buy America certificate submitted by Thales as part of its Proposal shall serve as certification that Thales shall comply with the aforesaid Buy America requirements.

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D. Thales shall be solely responsible for all costs related to its compliance with Buy America requirements. Failure to comply with these Buy America requirements shall constitute a material breach of this Agreement. See 49 CFR § 661.17. Thales acknowledges that contractors and vendors who intentionally or willfully fail to comply with the Buy America requirements may also be subject to debarment or suspension proceedings. 49 CFR § 661.18, 661.19.

4. NATIONAL ITS ARCHITECTURE POLICY.

If providing Intelligent Transportation Systems (ITS) property or services, Thales shall comply with the National ITS Architecture and standards to the extent required by 23 U.S.C. § 512, FTA Notice, "FTA National ITS Architecture Policy on Transit Projects," 66 FR 1455, et seq., January 8, 2001, and later published policies or implementing directives FTA may issue.

5. CARGO PREFERENCE REQUIREMENTS - Use of United States-Flag Vessels

Thales agrees: (a) to use privately owned United States-Flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to the underlying Agreement to the extent such vessels are available at fair and reasonable rates for United States-Flag commercial vessels; (b) to furnish within 20 Working Days following the date of loading for shipments originating within the United States or within 30 Working Days following the date of leading for shipments originating outside the United States, a legible copy of a rated, "on-board" commercial ocean bill-of-lading in English for each shipment of cargo described above to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590 and to the FTA recipient (through Thales in the case of a subcontractor's bill-of-lading.); and (c) to include these requirements in all subcontracts issued pursuant to this Agreement when the subcontract may involve the transport of equipment, material, or commodities by ocean vessel.

6. ENERGY CONSERVATION REQUIREMENTS

Thales agrees to comply with mandatory standards and policies relating to energy efficiency which are contained in any state energy conservation plan issued in compliance with the Energy Policy and Conservation Act.

7. ACCESS TO RECORDS AND REPORTS

a. Thales agrees to provide the City and County of San Francisco, the FTA Administrator, the Comptroller General of the United States or any of their authorized representatives access to any books, documents, papers and records of Thales which are directly pertinent to this Agreement for the purposes of making audits, examinations, excerpts and transcriptions. Thales also agrees, pursuant to 49 C.F.R. 633.17, to provide the FTA Administrator or his authorized representatives, including any PMO contractor, access to Thales' records and construction sites pertaining to a major capital project, defined at 49 U.S.C. 5302(a)1, which is receiving Federal financial assistance through the programs described at 49 U.S.C. 5307, 5309 or 5311.

b. In all contracts between the City and County of San Francisco and Thales for a capital project or improvement (defined at 49 U.S.C. 5302(a)1) entered into through other than competitive bidding, Thales shall make available records related to the to the Purchaser, the Secretary of Transportation and the Comptroller General or any authorized officer or employee of any of them for the purposes of conducting an audit and inspection.

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c. Thales agrees to permit any of the foregoing parties to reproduce by any means whatsoever or to copy excerpts and transcriptions as reasonably needed.

d. Thales agrees to maintain all books, records, accounts and reports required under this Agreement for a period of not less than three years after the date of termination or expiration of this Agreement, except in the event of litigation or settlement of claims arising from the performance of this Agreement, in which case Thales agrees to maintain same until the City and County of San Francisco, the FTA Administrator, the Comptroller General, or any of their duly authorized representatives, have disposed of all such litigation, appeals, claims or exceptions related thereto. 49 CFR 18.36(i)(11).

8. CLEAN AIR REQUIREMENTS

a. Thales agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. §§ 7401 et seq. Thales agrees to report each violation to the City and County of San Francisco and understands and agrees that the City and County of San Francisco will, in turn, report each violation as required to assure notification to FTA and the appropriate EPA Regional Office.

b. Thales also agrees to include these requirements in each subcontract exceeding \$100,000 financed in whole or in part with Federal assistance provided by FTA.

9. CLEAN WATER REQUIREMENTS

a. Thales agrees to comply with all applicable standards, orders or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq. Thales agrees to report each violation to the City and understands and agrees that the City will, in turn, report each violation as required to assure notification to FTA and the appropriate EPA Regional Office.

b. Thales also agrees to include these requirements in each subcontract exceeding \$100,000 financed in whole or in part with Federal assistance provided by FTA.

10. RECYCLED PRODUCTS

Thales agrees to comply with all the requirements of Section 6002 of the Resource Conservation and Recovery Act (RCRA), as amended (42 U.S.C. 6962), including but not limited to the regulatory provisions of 40 CFR Part 247, and Executive Order 12873, as they apply to the procurement of the items designated in Subpart B of 40 CFR Part 247.

11. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

a. Overtime requirements - No Thales or subcontractor contracting for any part of the Agreement Work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of 40 hours in such workweek.

b. Violation; liability for unpaid wages; liquidated damages - In the event of any violation of the clause set forth in paragraph a. of this Section Thales and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such Thales and subcontractor shall be liable to the United States for liquidated damages. Such liquidated

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damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph a. of this section, in the sum of \$10 for each Day on which such individual was required or permitted to work in excess of the standard workweek of 40 hours without payment of the overtime wages required by the clause set forth in paragraph a. of this section.

c. Withholding for unpaid wages and liquidated damages - The MTA shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by Thales or subcontractor under any such contract or any other Federal contract with the same prime Thales, or any other federally-assisted contract subject to the Agreement Work Hours and Safety Standards Act, which is held by the same prime Thales, such sums as may be determined to be necessary to satisfy any liabilities of such Thales or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph b. of this section.

d. Subcontracts - Thales or subcontractor shall insert in any subcontracts the clauses set forth in paragraphs a. through d. of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime Thales shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs a. through d. of this section.

12. NO GOVERNMENT OBLIGATION TO THALES OR THIRD PARTIES

a. The City and Thales acknowledge and agree that, notwithstanding any concurrence by the Federal Government in or approval of the solicitation or award of the underlying contract, absent the express written consent by the Federal Government, the Federal Government is not a party to this Agreement and shall not be subject to any obligations or liabilities to the City, Thales, or any other party (whether or not a party to that contract) pertaining to any matter resulting from the underlying contract.

b. Thales agrees to include the above clause in each subcontract financed in whole or in part with Federal assistance provided by FTA. It is further agreed that the clause shall not be modified, except to identify the subcontractor who will be subject to its provisions.

13. PROGRAM FRAUD AND FALSE OR FRAUDULENT STATEMENTS AND RELATED ACTS

a. Thales acknowledges that the provisions of the Program Fraud Civil Remedies Act of 1986, as amended, 31 U.S.C. §§ 3801 et seq. and U.S. DOT regulations, "Program Fraud Civil Remedies," 49 C.F.R. Part 31, apply to its actions pertaining to this Project. Upon execution of this Agreement, Thales certifies or affirms the truthfulness and accuracy of any statement it has made, it makes, it may make, or causes to be made, pertaining to this Agreement or the FTA-assisted project for which this Agreement work is being performed. In addition to other penalties that may be applicable, Thales further acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification, the Federal Government reserves the right to impose the penalties of the Program Fraud Civil Remedies Act of 1986 on Thales to the extent the Federal Government deems appropriate.

b. Thales also acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification to the Federal Government under a contract connected with a project that is financed in whole or in part with Federal

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assistance originally awarded by FTA under the authority of 49 U.S.C. § 5307, the Government reserves the right to impose the penalties of 18 U.S.C. § 1001 and 49 U.S.C. § 5307(n)(1) on Thales, to the extent the Federal Government deems appropriate.

c. Thales agrees to include the above two clauses in each subcontract financed in whole or in part with Federal assistance provided by FTA. It is further agreed that the clauses shall not be modified, except to identify the subcontractor who will be subject to the provisions.

14. CIVIL RIGHTS REQUIREMENTS

a. Nondiscrimination - In accordance with Title VI of the Civil Rights Act, as amended, 42 U.S.C. § 2000d, section 303 of the Age Discrimination Act of 1975, as amended, 42 U.S.C. § 6102, section 202 of the Americans with Disabilities Act of 1990, 41 U.S.C. § 12132, and Federal transit law at 49 U.S.C. § 5332, Thales agrees that it will not discriminate against any employee or applicant for employment because of race, color, creed, national origin, sex, age, or disability. In addition, Thales agrees to comply with applicable Federal implementing regulations and other implementing requirements FTA may issue.

b. Equal Employment Opportunity - The following equal employment opportunity requirements apply to this Agreement:

(1) Race, Color, Creed, National Origin, Sex - In accordance with Title VII of the Civil Rights Act, as amended, 42 U.S.C. § 2000e, and Federal transit laws at 49 U.S.C. § 5332, Thales agrees to comply with all applicable equal employment opportunity requirements of U.S. Department of Labor (U.S. DOL) regulations, "Office of Federal Agreement Compliance Programs, Equal Employment Opportunity, Department of Labor," 41 C.F.R. Parts 60 et seq., (which implement Executive Order No. 11246, "Equal Employment Opportunity," as amended by Executive Order No. 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," 42 U.S.C. § 2000e note), and with any applicable Federal statutes, executive orders, regulations, and Federal policies that may in the future affect construction activities undertaken in the course of the Project.

(2) During the performance of this Agreement Thales agrees as follows:

a. Thales agrees to take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, creed, national origin, sex, or age. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. Thales agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

b. Thales will, in all solicitations or advertisements for employees placed by or on behalf of Thales, state that all qualified applicants will receive considerations for employment without regard to race, color, religion, sex, or national origin.

c. Thales will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers'

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representatives of Thales' commitments under this Section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

d. Thales will furnish all information and reports required by Executive Order 11246 of September 24, 1965, as amended, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

e. In the event of Thales' noncompliance with the nondiscrimination clauses of this Agreement or with any of the said rules, regulations, or orders, this Agreement may be canceled, terminated, or suspended in whole or in part and Thales may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, as amended, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, as amended, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

f. Thales will include the provisions of subsections 1 and 2 in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, as amended, so that such provisions will be binding upon each subcontractor or vendor. Thales will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: Provided, however, that in the event a Thales becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency, Thales may request the City and the United States to enter into such litigation to protect the interests of the City and the United States.

(3) Age - In accordance with section 4 of the Age Discrimination in Employment Act of 1967, as amended, 29 U.S.C. § 623 and Federal transit law at 49 U.S.C. § 5332, Thales agrees to refrain from discrimination against present and prospective employees for reason of age. In addition, Thales agrees to comply with any implementing requirements FTA may issue.

(4) Disabilities - In accordance with section 102 of the Americans with Disabilities Act, as amended, 42 U.S.C. § 12112, Thales agrees that it will comply with the requirements of U.S. Equal Employment Opportunity Commission, "Regulations to Implement the Equal Employment Provisions of the Americans with Disabilities Act," 29 C.F.R. Part 1630, pertaining to employment of persons with disabilities. In addition, Thales agrees to comply with any implementing requirements FTA may issue.

c. Equal Opportunity Clauses

(1) As used in these specifications:

a. "Covered area" means the geographical area described in the solicitation from which this Agreement resulted;

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b. "Director" means Director, Office of Federal Agreement Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;

c. "Employer identification number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.

d. "Minority" includes persons who are:

(2) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);

(3) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);

(4) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and

(5) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

d. Whenever Thales, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this Agreement resulted.

e. If Thales is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Thales must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Thales or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Thales or Subcontractors toward a goal in an approved Plan does not excuse any covered Thales' or Subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.

f. Thales shall implement the specific affirmative action standards provided in paragraphs 7.a through p of these specifications. The goals set forth in the solicitation from which this Agreement resulted are expressed as percentages of the total hours of employment and training of minority and female utilization Thales should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered Construction Contractors performing construction work in geographical areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any Office of Federal Compliance Programs office or from Federal procurement contracting officers.

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Thales is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.

g. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom Thales has a collective bargaining agreement, to refer either minorities or women, shall excuse Thales' obligations under these specifications, Executive Order 11246, as amended, or the regulations promulgated pursuant thereto.

h. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by Thales during the training period, and Thales must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

i. Thales shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of Thales' compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. Thales shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:

(1) Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which Thales' employees are assigned to work. Thales, where possible, will assign two or more women to each construction project. Thales shall specifically ensure that all foremen, superintendents, and other supervisory personnel assigned to the Work are aware of and carry out Thales' obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.

(2) Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when Thales or its unions have employment opportunities available, and maintain a record of the organizations' responses.

(3) Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to Thales by the union or, if referred, not employed by Thales, this shall be documented in the file with the reason therefore, along with whatever additional actions Thales may have taken.

(4) Provide immediate written notification to the Director when the union or unions with which Thales has a collective bargaining agreement has not referred to Thales a minority person or woman sent by Thales, or when Thales has other information that the union referral process has impeded Thales' efforts to meet its obligations.

(5) Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to Thales' employment needs, especially those programs funded or approved by the Department of Labor. Thales shall provide notice of these programs to the sources compiled under 7.b above.

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(6) Disseminate Thales' EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting Thales in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

(7) Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions, including specific review of these items with onsite supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of construction work at any the Site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

(8) Disseminate Thales' EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing Thales' EEO policy with other Thales and Subcontractors with whom Thales does or anticipates doing business.

(9) Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving Thales' recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, Thales shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.

(10) Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the Site and in other areas of a Thales' work force.

(11) Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.

(12) Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.

(13) Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and Thales' obligations under these specifications are being carried out.

(14) Ensure that all facilities and company activities are nonsegregated, except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

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(15) Document and maintain a record of all solicitations of offers for subcontracts from minority and female Construction Contractors and suppliers, including circulation of solicitations to minority and female Thales associations and other business associations.

(16) Conduct a review, at least annually, of all supervisors' adherence to and performance under Thales' EEO policies and affirmative action obligations.

j. Thales are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (Paragraphs i(1) through i(16). The efforts of a Thales association, joint contractor -union, contractor-community, or other similar group of which Thales is a member and participant, may be asserted as fulfilling any one or more of its obligations under Paragraphs i(1) through i(16) of these Specifications provided that Thales actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in Thales' minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of Thales. The obligation to comply, however, is Thales' and failure of such a group to fulfill an obligation shall not be a defense for Thales' noncompliance.

k. A single goal for minorities and a separate single goal for women have been established. Thales, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, Thales may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though Thales has achieved its goals for women generally, Thales may be in violation of the Executive Order if a specific minority group of women is underutilized).

I. Thales shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.

m. Thales shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.

n. Thales shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Compliance Programs. Any Thales who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

o. Thales, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If Thales fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.

p. Thales shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction

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trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, Thales shall not be required to maintain separate records.

q. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

15. DBE/SBE ASSURANCES.

Pursuant to 49 C.F.R. section 26.13, Thales is required to make the following assurance in its agreement with SFMTA and to include this assurance in any agreements it makes with subcontractors in the performance of this contract:

Thales or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. Thales shall carry out applicable requirements of 49 C.F.R. Part 26 in the award and administration of DOT-assisted contracts. Failure by Thales or subcontractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as SFMTA deems appropriate.

16. DRUG AND ALCOHOL TESTING

To the extent Contractor, its subcontractors or their employees perform a safetysensitive function under the Agreement, Contractor agrees to comply with, and assure compliance of its subcontractors, and their employees, with 49 U.S.C. § 5331, and FTA regulations, "Prevention of Alcohol Misuse and Prohibited Drug Use in Transit Operations," 49 CFR Part 655.

17. SUBSTANCE ABUSE

Thales shall comply with U.S. DOT regulations, "Drug Free Workplace Requirements (Grants)" 49 C.F.R. Part 29, Subpart F, and other applicable U.S. DOT and FTA regulations and guidance pertaining to substance abuse (drugs and alcohol) that may be promulgated.

18. FALSE OR FRAUDULENT STATEMENTS AND CLAIMS

19. DEBARMENT AND SUSPENSION

See Certification Regarding Debarment, Suspension, and Other Responsibility Matters.

20. FLY AMERICA

Thales agrees to comply with 49 U.S.C. 40118 (the "Fly America" Act) in accordance with the General Services Administration's regulations at 41 CFR Part 301-10, which provide that recipients and subrecipients of Federal funds and their Thales are required to use U.S. Flag air carriers for U.S. Government-financed international air travel and transportation of their personal effects or property, to the extent such service is available, unless travel by foreign air carrier is a matter of necessity, as defined by the Fly America Act. Thales shall submit, if a

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foreign air carrier was used, an appropriate certification or memorandum adequately explaining why service by a U.S. flag air carrier was not available or why it was necessary to use a foreign air carrier and shall, in any event, provide a certificate of compliance with the Fly America requirements. Thales agrees to include the requirements of this Section in all subcontracts that may involve international air transportation.

21. INCORPORATION OF FEDERAL TRANSIT ADMINISTRATION (FTA) TERMS

The preceding provisions include, in part, certain Standard Terms and Conditions required by DOT, whether or not expressly set forth in the preceding contract provisions. All contractual provisions required by DOT, as set forth in FTA Circular 4220.1F, are hereby incorporated by reference. Anything to the contrary herein notwithstanding, all FTA-mandated terms shall be deemed to control in the event of a conflict with other provisions contained in this Agreement. Thales shall not perform any act, fail to perform any act, or refuse to comply with any (name of grantee) requests which would cause (name of grantee) to be in violation of the FTA terms and conditions.

22. FEDERAL CHANGES

Thales shall at all times comply with all applicable FTA regulations, policies, procedures and directives, including without limitation those listed directly or by reference in the Master Agreement between the City and FTA, as they may be amended or promulgated from time to time during the term of this Agreement. Thales' failure to so comply shall constitute a material breach of this Agreement.

23. FEDERAL RULES OF ACQUISITION NOT APPLICABLE

The City has not adopted the Federal Rules of Acquisition (FRA). Except as specifically stated in this Agreement: (1) this Agreement is not subject to the FRA; and, (2) for purposes of interpreting or enforcing the Agreement, the City shall not be bound by the FRA or any court decision interpreting the FRA.

24. TEXTING WHILE DRIVING; DISTRACTED DRIVING

Consistent with Executive Order 13513 "Federal Leadership on Reducing Text Messaging While Driving", Oct. 1, 2009 (available at http://edocket.access.gpo.gov/2009/E9-24203.htm) and DOT Order 3902.10 "Text Messaging While Driving", Dec. 30, 2009, SFMTA encourages Thales to promote policies and initiatives for employees and other personnel that adopt and promote safety policies to decrease crashes by distracted drivers, including policies to ban text messaging while driving, and to include this provision in each third party subcontract involving the Work.

25. SEAT BELT USE

In compliance with Executive Order 13043 "Increasing Seat Belt Use in the United States", April 16, 1997 23 U.S.C. Section 402 note, the SFMTA encourages Thales to adopt and promote on-the-job seat belt use policies and programs for its employees and other personnel that operate company owned, rented, or personally operated vehicles, and to include this provision in each third party subcontract involving the Work.

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APPENDIX B

SCOPE OF WORK:

PROPRIETARY EQUIPMENT, SOFTWARE AND SERVICES TO BE PROVIDED BY THALES

BILL OF QUANTITIES FOR ATCS SUBSYSTEM COMPONENTS

Item/Location	Current Thales Part Number (Subject to Change)	Quantity
Central Control		
Workstation (Simple)	300-3-01909	2
Workstation rack mountable rails	500-3-00652	1
Workstation Mouse	300-3-01875	3
Workstation Keyboard	300-3-01725	3
Workstations Monitors - 22" LCD (2 per Supervisor, Dispatcher w/s and 1 for all others)	300-3-01771	5
PBA - ADAPTER PRO/1000 GT 1-PT DSKTP CAT5	401-3-00334	3
PBA-GRAPHIC PCIE 124MB DUAL HEAD LP	401-3-00548	3
ADAPTER-DISPLAY PORT TO DVI-D 20CM	300-3-01871	3
DCS		
DCS Rack	500-3-0474	1*
Data CTF - Central	3CU10065EHAA	1*
Data CTF - Equipment Room	3CU10065DZAA	3*
CTF Mounting Hardware	3CU10031AHAA	4*
Feed In Devices (FID) - 2 channel	3CU10078CWAA	3*
Entry FID (EFID)	3CU10078BGAA	1*
Remote Loop Boxes	3CU10014AFAA	16*
Optical Modem V1 29dB	3CU20217ADAA	13*
Optical Modem V2 29dB	3CU20217ABAA	13*

Central Subway ATCS – Proprietary Equipment Procurement B-1

VCC:		
CAT 5 Patch panel	300-3-01264	3
MM Patch Panel	500-3-00477	3
SM Patch Panel	500-3-00475	3
Storage tray	500-3-00652	3
VCC Rack	3CU10360ABAA	2*
VCC I/O Rack	3CU70702ACAA	2*
VCC DT-13 LOOP/ 3 STC	3CU70703ABAA	2*
VCC CO Terminal PC	300-3-01690	3*
CL/RS232 Converter	300-3-00402	4*
RACK ASSEMBLY - INTERFACE	3CU10023EHAA	1*
RACK ASSEMBLY - VCC DCS INTERFACE	3CU70705AAAA	1*
STC and PDIU:		
3rd Gen Snooper Rack	3CU10187BJAAHAZZA	1*
PSU Rack	3CU10028WFAA	1*
Relay Rack	3CU 10028 WFAA	1*
FEC based STC Relay Rack		1*
ACE Power Rack		1*
CTF Mounting Hardware	3CU10031AHAA	3*
STC ID Plug	300-2-00172-xxx	2*
STC Interconnect Cable	3CU30500AAAA	1*
Axle Counter Equipment		
Rail Contact 30K 8,0m cable (subst)	3JA84527AAAA	22*
Pedestal, variable 400mm	7HA02204BAAA	22*
Electronic Unit Zp30K, 120V	7HA02212AABA	22*

Central Subway ATCS – Proprietary Equipment Procurement

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Subrack ACE 3-32 without filter (2v3)	3CR01897AAAA	1*
Processor EPCM, 128 MB CF	3JA80325AABA	3*
DC/DC Converter ACE 60V	3CR31041AAAA	5*
Serial I/O for ACE 3 x	3CR01858PFAC	22*
Covering Plate (Blank Board)	3CR014390014	4*
Power Data Coupline Unit (PDCU)	3CR01892BAAB	22*
DC/DC Converter 48V-60V/100V (for DP)	9754343224	8*
Test Unit incl. Dummy Wheel	1998228201	1*
WAYSIDE Special Tools and Test		
FID Extender Card	5822201380	1*
SNOOPER	TBD	1*
Sniffer (w/s + software)	TBD	1*

SOFTWARE

· · · · · · · · · · · · · · · ·
1. Intersig (STC)
2. ACE Database
3. LCP Database
4. LCP Application
5. ACE
6. SPR (CPU-A)
7. PST (CPU-B)
8. VOBC Software
9. Schedule Regulation Subsystem (SRS)
10. Graphical User Interface and Line Overview (GUI)
11. Platform Data Distribution (PDD)
12. Track-Vehicle Simulator (TVS)
13. Snooper
14. VCC Software
15. SMC Pre-processors
16. TAS Platform
17.SMC Software

Central Subway ATCS – Proprietary Equipment Procurement B-3

HARDWARE

:| []

1. ATCS Workstations
2. Axle Counters/EAK
3. Axle Counter Evaluators (ACE)
4. ATCS Cable Termination Frame (CTF)
5. ATCS Rack to Rack Cables in Train Control Room
6. ATCS Card Files and Extenders
7. ATCS Chassis Cabinets
8. Entry Feed-In Device (EFID)
9. Feed-In Device (FID)
10.ATCS Firmware (ROM, PROM, EPROM) for Furnished equipment
11.Local System Management Center (LSMC)
12.ATCS Operations Simulators
13. ATCS Power Supplies - Rack mounted for furnished equipment
14.ATCS Processors/Vital Processors/Relays
15.ATCS Remote Loop Box (RLB)
16.ATCS Loop Termination Box
17.ATCS Racks
18. Station Controller Subsystem
19.ATCS Communication Controller
20. System Management Center Hardware Upgrades
21.VCC Subsystem
22.VCC Snooper
23.VCC/CCOT
24.ATCS Vital Relays
25. Switch Control Electronics

Central Subway ATCS – Proprietary Equipment Procurement B-4

APPENDIX C

PRICING AND MILESTONE PAYMENT SCHEDULE

Milestone No.	Description	Components	Value	Sub-Value
1	Mobilization	NTP	\$495,774.32	\$495,774.32 \$495,774.32
2	Initial Submittals	Preliminary Project Schedule Review with Tutor Configuration Management Plan Training Program Plan	\$778 <u>,</u> 482.05	\$129,747.01 \$129,747.01 \$518,988.04 \$778,482.05
3	Preliminary Design	System Assurance Plan Documentation on how to calculate MTBHE Product Data for all equipment and software Description of Theory of Operation Preliminary Design Review Package	\$2,075,952.14	\$643,942.97 \$129,747.01 \$247,411.00 \$129,747.01 \$925,104.16 \$2,075,952.14
4	Intermediate Design	AZLM Test results Interface Control Document Safety Related Design Assumptions Description of Safety Assurance Concepts and Program Description of overall ATCS System Standards used to design Vital ATCS Software Preliminary Hazard Analysis Intermediate Design Review Package	\$3,113,928.22	\$896,983.22 \$643,942.97 \$129,747.01 \$247,411.00 \$129,747.01 \$129,747.01 \$518,988.04 \$417,361.97 \$3,113,928.22
5	Final Design	Recommended Spare Parts List Testing and Startup Program Plan Standards used to design Class 1 Hardware Fault Tree Analysis ATCS Reliability Analysis Maintainability Analysis Schematic Drawing of ATCS Room Equipment Room Layout Drawings Final Design Review Package	\$2,594,940.18	\$129,747.01 \$247,411.00 \$129,747.01 \$518,988.04 \$247,761.81 \$247,761.81 \$518,988.04 \$403,795.76 \$150,739.71 \$2,594,940.18

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6	Factory Acceptance Tests	Release BOM for Procurements Test Lab	\$2,366,270.67	\$280 472 20
		Release BOM for Procurements Test Lab		
	lests			\$389,173.39
		Available Complete Flow Diagrams,		\$235,629.52
	Complete	Functional Block Diagrams		\$494,274.32
		FMECA of Class 1 Hardware		\$494,274.32
		FAT Test Results		\$752,919.12
				\$2,366,270.67
7	Hardware		\$2,912,783.08	
	Procurement	Rack Layout Drawings Equipment	¢2,012,100.00	\$235,629.52
		Arrangement Drawings Power Distribution	1	\$394,271.74
		Drawings and power Calculations Wire		\$394,274.32
		Routing Diagrams Equipment Plans and		\$389,173.39
<u> </u>		Installation Drawings Circuit Plans for all I/O		\$494,274.32
		functions Schematics of new Hardware	. 1	\$235,629.52
		Components Shop Drawings for all Equipment		\$298,271.23
		Foundation, Grounding Arrangements		\$235,629.52
			and the second	\$235,629.52
			-	\$2,912,783.08
				Service - Constitution of Contrast and Contrast Contrast Contrast
8	Deliver		\$3,425,424.00	
ļ	Hardware	Deliver Hardware	•	
				\$3,425,424.00
9	Installation,		\$2,580,867.84	
	Software	Installation Procedures Preventative		\$448,444.11
1	Testing	Maintenance Plan Guideway Correspondence		\$212,066.57
,		Testing PICO Test results Operating and		\$270,072.62
	· · ·	Maintenance Manuals ATCS Reliability		\$448,444.11
		Demonstration Test Plan ATCS Maintainability		\$212,066.57
		Demonstration Test Plan Book of Plans for		\$132,066.57
		each Train Control Room		\$157,195.20
		Book of Plans for each Central Control		\$350,256.05
		Equipment Room		\$350,256.05
				\$2,580,867.84
10	Start up and		\$2,220,059.05	
	Testing	as-built drawings for train control rooms	+2,220,000.00	\$681,203.55
· ·		as-built		\$681,203.55
		drawings for central control equipment room		\$857,651.96
		SAT test reports		\$2,220,059.05
· · · · · · · · · · · · · · · · · · ·			A4 005 005 05	
11	Substantial	Quetem internation Tracts Quere lateral	\$1,235,685.80	¢404.074.00
	Completion	System integration Tests Completed		\$494,274.32
		System Integration test reports - Draft		\$494,274.32
		SFMTA training completed		\$247,137.16
				\$1,235,685.80
1				

and the state of the

12	Final		\$988,548.64	
	Acceptance	Final system integration test reports		\$494,274.32
		Successful completion of reliability demonstration test plan		\$494,274.32
				\$988,548,64
Totals			\$24,788,716.00	\$24,788,716.00

APPENDIX D

2

SAMPLE INVOICE

FHALE	5	L	Invo	oice		9088534
ales Transport & Security, In 00 Corporate Drive, Suite 75 TSBURGH PA 15237 A		'elephone: 1-416-742-3 Pax Number: 1-416-742-		Раул		20 AUG 2012 19 SEP 2012 f of 1
Bill To	100001399	5		Ship To '	100001399	15
ITY AND COUNTY O IUNICIPAL RAILWAY SOUTH VAN NESS RD FLOOR AN FRANCISCO CA ISA Attention: Accounts Par	94103-1267	CISCO	MUNICIPAL 1 SOUTH V 3RD FLOOF	RAILWAY	SAN FRAN 94103-1267	CISCO
Payment Tennis: Due 3 Print Date: 20 AL Purchase Order: DPPT Sales Order: 36621 Order Date: 19 JU	IG 2012 10000024A 13	oice date		Sold Ta: 1000 oTems: FOB Delivery: YES		
	Rev Shipp		M List Price	Discount	Net Price 436,436.00	Ext. Price 436,436.0
			``	Discount		
	NG N Service Engin Maintenance	VA N/A E	ξ Α	Discount		Ext. Price 436,436.04
1 SERVICE-ENGINEERI	NG N Service Engin Maintenance	KA N/A E keering Agreement Extension	ξ Α	Discount Line Total		
1 SERVICE-ENGINEERI	NG NG N Service Engin Maintenance (July 1, 2012 Currency:	KA N/A E eering Agreement Extension - June 30, 2013) USD	ξ Α	· · · · · · · · · · · · · · · · · · ·		436,436.04
	NG NG N Service Engin Maintenance (July 1, 2012 Currency:	KA N/A E eering Agreement Extension - June 30, 2013) USD	ξ Α	Lîne Total		436,436.00 436,436.00

5700 Corporate Drive, Suite 750, Pittsburgh, PA 15237

The Terms and Conditions of the Contract between the parties shall apply unless otherwise mutually agreed and appended hereto.

Central Subway ATCS – Proprietary Equipment Procurement

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APPENDIX E HRC PROGRESS PAYMENT FORM

Central Subway ATCS - Proprietary Equipment Procurement ⁻ E-1

APPENDIX F

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MUTUAL NONDISCLOSURE AGREEMENT (IN RE CONFIDENTIAL INFORMATION)

Central Subway ATCS - Proprietary Equipment Procurement

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APPENDIX G SOFTWARE ESCROW AGREEMENT

Central Subway ATCS – Proprietary Equipment Procurement G-1

APPENDIX H

ATCS SPECIFICATIONS

ATCS CONSTRUCTION AND FUNCTION SPECIFICATIONS

The Proprietary Equipment Thales supplies to the Central Subway Project under this Equipment Contract shall comply with the following Specifications:

- a. ATCS General Requirements (Construction Contract Specifications Section 34 42 23)
- b. ATCS Functional Requirements (Construction Contract Specifications Section 34 42 25)
- c. ATCS Safety (Construction Contract Specifications Section 34 42 27)

d. ATCS System Assurance (Construction Contract Specifications Section 34 42 31)

- e. ATCS Room Equipment (Construction Contract Specifications Section 34 42 35)
- f. ATCS Wayside Equipment (Construction Contract Specifications Section 34 42 37)
- g. ATCS Central Equipment (Construction Contract Specifications Section 34 42 39)
- h. ATCS Testing (Construction Contract Specifications Section 34 42 41)

Central Subway ATCS – Proprietary Equipment Procurement H-1



Agreement between the City and County of San Francisco

and

Thales Transport & Security, Inc.

for Design Review, Software, Implementation and Testing Services

for an Advanced Train Control System,

San Francisco Municipal Transportation Agency

Central Subway Project

(Third Street Light Rail Project, Phase 2)

Contract No. 1266-2

December 3, 2013

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Thales ATCS Implementation Contract

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Agreement between the City and County of San Francisco and

Thales Transport & Security, Inc. for Design Review, Software, Implementation and Testing Services for an Advanced Train Control System, San Francisco Municipal Transportation Agency Central Subway Project (Third Street Light Rail Project, Phase 2)

Contract No. 1266-2

This Agreement between the City and County of San Francisco and Thales Transport & Security, Inc. for Design Review, Software, and Implementation and Testing Services for an Advanced Train Control System for the Central Subway Project (Third Street Light Rail Project, Phase 2) (hereinafter "Implementation Contract") is made between the City and County of San Francisco, acting by and through its Municipal Transportation Agency, a municipal corporation organized and existing under the laws of the State of California, whose principal place of business is at 1 South Van Ness Avenue, San Francisco, California 94102, U.S.A. (hereinafter referred to as "SFMTA" or "City"); and Thales Transport & Security, Inc., a corporation organized and existing under the laws of the State of Delaware, whose principal place of business is at 5700 Corporate Drive, Suite 750, Pittsburgh, PA 15237, U.S.A., (hereinafter referred to as "Thales" or "Contractor").

This Implementation Contract is dated for convenience as December 3, 2013.

When appropriate herein, SFMTA and Thales are individually hereinafter referred to as "Party" and collectively referred to as "Parties".

1. RECITALS.

1.1. Under the Central Subway Project, which is Phase 2 of the Third Street Light Rail Project, the SFMTA is constructing a new subway line in San Francisco, which runs approximately 1.6 miles from 4th and Brannan Streets, north under Fourth Street to Stockton Street, and north under Stockton Street into Chinatown.

1.2. Under Agreement CS-155-3, HNTB-B&C Joint Venture designed the control, signaling and trackway systems, which will be constructed and installed in the Central Subway by Tutor Perini, the Construction Contractor engaged by the SFMTA to construct the stations, trackways and systems SFMTA Contract 1300.

1.3. The Advanced Train Control System (ATCS), further defined in Section 2.5, is a specialized and proprietary system that was first supplied to the SFMTA by Thales (formerly Alcatel Transport Automation (U.S.) Inc.) under San Francisco Municipal Railway contract MR-1034R, dated August 10, 1992.

1.4. The SFMTA has determined that to avoid dual equipping its rail vehicles with multiple control systems or segregating the vehicles to be used on the

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Central Subway line, the Existing ATCS will be expanded to cover the Central Subway operations.

1.5. The ATCS must operate as a single integrated system between the new Central Subway and the Existing ATCS that services the SFMTA's subway operations in the Market Street tunnels. Due to the proprietary nature of the Existing ATCS, no vendor other than Thales can provide the SFMTA the necessary ATCS equipment and services for the Central Subway. Said equipment and services include wayside and on-board equipment, software and software configuration, design review, inspection of ATCS equipment installation, ATCS operation testing, and support related to integration of the ATCS to other systems, and support for CPUC safety certification. This Implementation Contract is necessarily therefore a sole source contract. The SFMTA has procured certain Proprietary Equipment under SFMTA Contract 1266-1, a separate agreement with Thales. The Proprietary Equipment will be installed by Tutor Perini, the Construction Contractor, under SFMTA Contract 1300 (the Construction Contract). Under this Implementation Agreement, Thales will provide ATCS system engineering, design review, procurement of additional Proprietary Equipment, oversight and inspection services to support ATCS installation, implementation and testing.

1.6. The parties intend that both the Implementation Contract and the Equipment Contract will be assigned to Tutor Perini, which contracts will then become subcontracts to the Construction Contract CS-1300.

1.7. Approval for this Implementation Contract was obtained under Civil Service Commission Notice of Action for Contract Number 1266-2 on December 2, 2013.

Now, therefore, in consideration of the facts represented above, the premises and the mutual undertakings of the Parties herein contained, the Parties agree as follows:

2. DEFINITIONS.

For the purposes of this Implementation Contract, the following words and expressions shall have the meanings set forth herein below. The terms defined in the Construction Contract shall also apply to this Implementation Contract following the Assignment. Where a term defined here conflicts with a defined term in the Construction Contract, the definition provided here shall govern.

2.1. "Additional Services" means work requested by the City to be performed that is not included in the scope of the Work to be performed as Base Services or Optional Services.

2.2. "Affiliate" means an entity that controls, is controlled by, or is under the common control, but only for as long as such control exists; for the purposes of this Implementation Contract, control is deemed to exist when the company in question has the authority by equity ownership, debt or contract, directly or indirectly through one or more intermediaries, to direct the actions or policies of the affiliate company.

2.3. "Article" means a provision of this Implementation Contract designated by a number title before the decimal.

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2.4. "Assignment" means the assignment by the City and assumption by the Construction Contractor of this Implementation Contract, by which Thales shall become a subcontractor to the Construction Contractor (Tutor Perini) in accordance with this Implementation Contract.

2.5. "ATCS" means the Advanced Train Control System provided to the SFMTA by Thales under this Implementation Contract and the Equipment Contract.

2.6. "ATCS Schedule" means the approved schedule for the design, implementation and testing of the ATCS, which is a subcomponent of the Project Schedule.

2.7. "Base Services" means the Work identified in this Implementation Contract for which the City shall pay Thales the agreed fixed-price listed in the Pricing and Milestone Payment Schedule in Appendix C.

2.8. "Beneficial Use" shall have the meaning as defined in Section 2.08 ("Owner's Beneficial Use") of the General Provisions of the Construction Contract.

2.9. "City" means the City and County of San Francisco, a municipal corporation organized and existing under the laws of the State of California.

2.10. "Confidential Information" means any and all information that is defined as such in the Mutual Nondisclosure Agreement, appended to this Implementation Contract as Appendix F.

2.11. "Contract Amount" means the total amount of compensation to be paid to Thales under this Implementation Contract, as stated at Article 4 and in the Pricing and Milestone Payment Schedule set out in Appendix C.

2.12. "Construction Contract" means the public works contract Agreement No. CS-1300, between the City and Tutor Perini (the Construction Contractor), for the construction of the surface, trackwork and systems elements of the Central Subway Project.

2.13. "Construction Contractor" means Tutor Perini (also referenced as "Tutor"), the contractor awarded the Construction Contract.

2.14. "Construction Schedule" means the approved schedule for the performance and completion of the Construction Work

2.15. "Construction Work" means the work performed or subcontracted by the Construction Contractor that is not work proprietary to Thales or otherwise within Thales' scope of Work under this Implementation Contract.

2.16. "Days" mean consecutive calendar days, including weekends and holidays, unless otherwise specified.

2.17. "Design Manager" means the individual designated by City to be the primary liaison from the Designer to Thales for the purposes of this Implementation Contract.

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2.18. "Designer" means HNTB-B&C Joint Venture, a joint venture of professional engineering firms obligated by Agreement CS-155-3 to design the signaling and control systems, traction power, trackway and other specified elements of the Central Subway Project.

2.19. "Designs" means engineering documents, drawings and specifications created by the Designer which Thales shall review under this Implementation Contract.

2.20. "Director" means the Director of Transportation, who is the chief executive officer of the SFMTA.

2.21. "Documentation" means any user documentation, instruction manuals, warranty documentation, maintenance documentation and documentation for Software and Proprietary Equipment and any updates or revisions thereof licensed under this Implementation Contract.

2.22. "Effective Date of this Implementation Contract" is the date on which the authorized signatories of the City and Thales have executed this Implementation Contract.

2.23. "Effective Date of the Assignment" means the date when the SFMTA has executed a Contract Modification to the Construction Contract effecting the Assignment of this Implementation Contract from the SFMTA to the Construction Contractor.

2.24. "Equipment Contract" means SFMTA Contract No. CS-1266-1, for the procurement of Proprietary Equipment for the ATCS for the Central Subway Project. See Article 3.

2.25. "Existing ATCS" means the Advanced Train Control System provided to the City by Alcatel under Agreement No. 1034R (1992).

2.26. "Final Acceptance" means the date and written notice of acceptance of the Work by the SFMTA to the Construction Contractor, issued in accordance with Section 6.22(K) of the San Francisco Administrative Code, issued when the Construction Contract has been fully performed, including all Items on punch lists, and when all contractual and administrative requirements have been fulfilled.

2.27. "Force Majeure" means any act of God or any other cause beyond a Party's control (including, but not limited to, any restriction, strike, lock-out, plant shutdown, material shortage, delay in transportation or any similar cause that delays the completion of the Work and that the Party could not have reasonably foreseen or mitigated.

2.28. "Implementation Contract" means this document, SFMTA Contract No. 1266-2, which is the agreement between Thales and the SFMTA under which Thales will provide ATCS engineering and design review, installation oversight and testing and safety certification support and systems integration support services for the Central Subway Project, as described herein.

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2.29. "Indemnitee" and "Indemnitees" are those individuals and organizations listed in Section 7.1(a) to whom defense and indemnification of claim or action is owed.

2.30. "Included Appendices" are those documents attached to the Implementation Contract, identified herein and that are incorporated into this Implementation Contract by reference.

2.31. "Milestone" means the date(s) set out in the Project Schedule or other SFMTA approved schedule by which Thales shall have completed identified portion(s) of the Work.

2.32. "Non-Proprietary Equipment" means those elements of the ATCS that are not proprietary to Thales and will be supplied by the Construction Contractor as specified in this Implementation Contract or the Construction Contract.

2.33. "Optional Service(s)" means the Work identified in the Construction Contract and bid documents for the Construction Contract as options which if the City exercises an option and Thales performs the Work of that option, the City shall compensate Thales the amount listed for that Optional Service in the Pricing and Milestone Payment Schedule in Appendix C.

2.34. "Paragraph" means a provision of this Implementation Contract that is a subpart of a Section.

2.35. "Project Schedule" means the schedule approved by the SFMTA for completion of the all work under the Construction Contract, including but not limited to the Work to be performed by Thales under the Equipment Contract and this Implementation Contract as a subcontractor to the Construction Contractor.

2.36. "Proprietary Equipment" means the proprietary ATCS hardware, computers, servers, configured work stations, and other ATCS components, diagnostic and simulation tools, spare parts and other parts and electronic, mechanical or electrical components that are proprietary to Thales and can only be supplied by Thales, including but not limited to the ATCS Equipment, Software and other ATCS elements listed in Appendix B to this Implementation Contract.

2.37. "Reliability Demonstration Test" means the testing to be conducted of the ATCS commencing at Revenue Service, as described in Specifications Section 34 42 31, at paragraph 3.01.B and Section 34 42 25, ATCS Functional Requirements confirming the availability of the ATCS meets requirement of applicable Specifications and design requirements referenced in Section 3.3, below.

2.38. "Retention" means funds held by the City or the Construction Contractor as provided in Section 14.2 of this Implementation Contract.

2.39. "Revenue Service" means the commencement of passenger service operations of the Central Subway as a public transit common carrier.

2.40. "Section" means a provision of this Implementation Contract that is a subpart of an Article.

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2.41. "SFMTA" means the San Francisco Municipal Transportation Agency, a department of the City and County of San Francisco ("City"), whose principal place of business is at 1 South Van Ness Avenue, San Francisco, California 94102, U.S.A.

2.42. "Site(s)" means the location(s) where the Proprietary Equipment, Non-Proprietary Equipment, Software or other ATCS elements are installed.

2.43. "Software" means all or any part of the specific collection of computer programs and/or machine-readable instructions bundled with or embedded in the Proprietary Equipment (aka firmware) provided by Thales under this Implementation Contract and/or Equipment Contract, whether as a stand-alone code product or preinstalled on Proprietary Equipment (aka firmware). Software shall include any updates or upgrades to the original ATCS software that may be licensed to the SFMTA pursuant to this Implementation Contract, including but not limited to those listed in Appendix B to this Implementation Contract.

2.44. "Specifications" means the ATCS construction and function requirements listed in Article 3 and set out in Appendix H to this Implementation Contract.

2.45. "Substantial Completion" shall have the meaning as defined in the General Provisions of the Construction Contract at Section 1.01.A.93, which as applied to this Implementation Contract means the Work is sufficiently complete in accordance with the Contract Documents so that the ATCS can be utilized for the purposes for which it is intended, including but not limited to Revenue Service.

2.46. "Term," "Contract Term", "Term of Agreement" or "Contract Period" means the period commencing on the Effective Date and terminating on the effective date stated in any termination notice or the date when the SFMTA issues Final Acceptance of the Work to the Construction Contractor.

2.47. "Thales" means Thales Transport & Security, Inc., a corporation organized and existing under the laws of the State of Delaware, whose principal place of business is at 5700 Corporate Drive, Suite 750, Pittsburgh, PA 15237, U.S.A.

2.48. "Thales Affiliate" means a legal entity that is under common control with Thales Transport & Security, Inc.

2.49. "Work", as more specifically described in Article 3, below, means the performance of Base Services, approved Optional Services (if any), and approved Additional Services (if any) and provision of Software by Thales under this Implementation Contract (and any additional Proprietary Equipment that is not procured under the Equipment Contract) that are proprietary to, only available from, or otherwise appropriate to be procured under a sole source contract to Thales, and that are necessary for the design, installation, implementation, testing and certification of the ATCS. Said services include but may not be limited to performance of design review, engineering, software programming and configuration, system integration support, system testing, construction oversight and inspection services, and the provision of proprietary Software, firmware, servers, wayside and on-board ATCS, signaling equipment, and related Proprietary Equipment. The Work under this Implementation Contract is not Construction Work. In certain contexts the term "work" generally refers to the performance of tasks, duties and obligations by a

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Party. Any reference to work, whether or not capitalized, that due to its proprietary nature can only be performed or supplied by Thales, shall be considered an obligation of Thales under this Implementation Contract. Any reference to work, whether or not in lower case that is not proprietary to Thales or is not specified as Work assigned to Thales, shall be considered an obligation of the Construction Contractor.

3. SUMMARY OF AGREEMENT AND SCOPE OF WORK.

3.1. This Implementation Contract provides the legal and procedural framework for Thales' provision of Work as described in Section 2.49, above, as well as the procurement of said Proprietary Equipment and Software.

3.2. Due to the proprietary and unique nature of the Software, Proprietary Equipment other elements of the Work, and the SFMTA's requirement that the ATCS installed in the Central Subway be interoperational with the Existing ATCS, this Implementation Contract is necessarily a sole source contract. It is equally necessary, however, that the final designs, installation and testing of the ATCS in the Central Subway be integrated and coordinated with the installation and testing of all other systems that are to be procured and/or constructed under the Construction Contract. As more specifically set out in Article 6 below, to best effect that integration and coordination, this Implementation Contract shall be assigned to the Construction Contractor. This Implementation Contract and the Equipment Contract will be reassigned to the SFMTA for completion of Reliability Testing of the ATCS at commencement of Revenue Service.

3.3. The Construction Contractor is responsible for the installation of the Proprietary Equipment and the integration of the ATCS to other systems. Thales shall provide support to the Construction Contractor, however, as necessary to implement the ATCS. Said support includes inspection of installed ATCS equipment, Proprietary Equipment, and other wayside and trackway infrastructure that interfaces with the ATCS. Thales shall provide information to the Construction Contractor to support the integration of the ATCS to other Central Subway systems.

3.4. Thales shall perform the Work as necessary to meet the ATCS Specifications requirements set out in the Construction Contract Specifications listed below (copies of which are appended to this Implementation Contract at Appendix H) as those Specifications may be amended and conformed:

- a. ATCS General Requirements (Construction Contract Specifications Section 34 42 23)
- b. ATCS Functional Requirements (Construction Contract Specifications Section 34 42 25)
- c. ATCS Safety (Construction Contract Specifications Section 34 42 27)
- d. ATCS System Assurance (Construction Contract Specifications Section 34 42 31)
- e. ATCS Room Equipment (Construction Contract Specifications Section 34 42 35)

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- f. ATCS Wayside Equipment (Construction Contract Specifications Section 34 42 37)
- g. ATCS Central Equipment (Construction Contract Specifications Section 34 42 39)
- h. ATCS Testing (Construction Contract Specifications Section 34 42 41)

(Copies of the Specifications Sections noted above are attached to this Implementation Contract as Appendix H; if amended as part of the Construction Contract, the amended Specifications shall govern.)

3.5. As more specifically set out in the Specifications, the Work includes, but is not limited to the following:

- Review of Existing ATCS designs and specifications; confer with Project design and engineering consultants and recommend any necessary changes to the existing ATCS designs; review and approve final ATCS designs;
- b. Supply of all Proprietary Equipment (including that which is provided under the Equipment Contract) and associated firmware and Software necessary for the installation, testing, and operation of the ATCS;
- c. Incorporate and verify all CSP provided design input data;
- d. Prepare ATCS infrastructure build specifications, and ATCS functional and performance requirements;
- e. Prepare all Interface Requirements Specifications involving the ATCS;
- f. Prepare the ATCS build designs;
- g. Prepare all documentation needed to support the continuing operation and maintenance of the ATCS, including training SFMTA operators in its use;
- h. Perform hazard analyses and provide mitigation measures and corrective actions;
- i. Perform all necessary Reliability, Availability, Maintainability and Safety (RAMS) analyses and provide compliance reports with supporting data;
- j. Identify spare and replacement parts including maintenance schedules;
- k. Prepare the systems integration and ATCS Test Plans and all verification and validation procedures;
- I. Submit Pre-Revenue and Turn Over Plan to SFMTA;
- m. Coordination with SFMTA, City and Oversight groups;

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- n. Provide management, design review, and construction testing and oversight of:
 - (1) ATCS Design;
 - (2) Subcontractors, suppliers, vendors, installers;
 - (3) ATCS physical and operational interfaces;
 - (4) Transport and local storage of Proprietary Equipment;
 - (5) Installation, configuration, integration, testing, commissioning, and user training of the ATCS and its Proprietary Equipment and Software;
 - (6) Documentation (i.e., as-built engineering documents, configuration and testing records) of the ATCS as finally tested and approved;
 - (7) Training and maintainer qualification evaluation (new design plus any changes);
 - (8) All necessary oversight of work by the Construction Contractor that affects the ATCS and the certification of ATCS performance, including continuing support as required during revenue operations; and
 - (9) Provide warranty services for three (3) years following Substantial Completion.

3.6. The purpose of the Equipment Contract and this Implementation Contract are to procure an Advanced Train Control System for the Central Subway Project that meets the ATCS requirements and specifications referenced in those agreements. The Proprietary Equipment and Work performed under the Equipment Contract, and Thales' obligations under that Agreement are incorporated into this Implementation Agreement, so that the City may equally enforce any obligation under that agreement under this Implementation Contract. Nothing in this provision shall be interpreted as limiting the Construction Contractor's responsibility for the ATCS as provided in the Construction Contract.

4. COMPENSATION.

4.1. Thales shall be compensated for the Work it performs under this Implementation Contract as provided in the Pricing and Milestone Payment Schedule set out in Appendix C to this Implementation Contract.

4.2. For its review of designs and preparation of design and construction documents performed prior to Assignment, the City shall pay Thales on a time and materials basis, as provided in Appendix C.

4.3. Following Assignment, Thales shall be paid for Work performed under this Implementation Contract by the Construction Contractor as set out herein in accordance with the payment milestones set out in this Implementation Contract and the payment provisions of the Construction Contract applicable to subcontractors.

4.4. Thales shall submit its payment applications pursuant to the Pricing and Milestone Payment Schedule in Appendix C of this Agreement. Prior to Assignment, the City shall pay Thales' invoices for the Proprietary Equipment. After

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Assignment, the Construction Contractor shall pay Thales' invoices for the Proprietary Equipment whereby Thales will submit a payment application to the Construction Contractor for review prior to the Construction Contractor submitting a final payment application to the SFMTA. Thales must submit its payment applications to the Construction Contractor no later than seven Days prior the Construction Contractor's due date to submit its payment application to the SFMTA. Thales shall include and submit supporting documentation with each application for payment. Tutor (Construction Contractor) will be required to submit for payment by the SFMTA, as part of Tutor's monthly invoice for payment, any Thales' invoices submitted in accordance with the requirements of the Construction Contract and this document for Work by Thales that has been properly performed and equipment delivered as specified.

4.5. Any services performed by Thales or provision or procurement of Non-Proprietary Equipment by Thales under the Construction Contract that is not supplied under this Implementation Contract or the Equipment Contract shall be governed by a separate subcontract agreement negotiated between Thales and the Construction Contractor.

4.6. Following reassignment of this Implementation Contract (see Section 6.11), the SFMTA shall directly compensate Thales for successful completion of the Reliability Demonstration Test in the amount of \$494,274.32 (which amount is included in the Contract Amount stated in Section 4.5, below). Excluding compensation to Thales paid on an authorized time and materials basis, the total cost to the SFMTA for the Work provided under this Implementation Contract, whether paid directly to Thales or through the Construction Contractor, shall not exceed **Twenty-One Million Three Hundred Sixty-Three Thousand Two-Hundred Ninety-Two United States Dollars (\$21,363,292 US),** as more specifically set out in Pricing and Milestone Payment Schedule appended hereto as Appendix C.

4.7. No charges shall be incurred under this Implementation Contract nor shall any payments become due to Thales until reports, services, or both, required under this Implementation Contract are received from Thales and approved by the SFMTA as being in accordance with this Implementation Contract, such approval not to be unreasonably delayed or withheld. City or Construction Contractor, as applicable, may reasonably withhold payment in any instance in which Thales has failed or refused to satisfy any material obligation associated with the Work provided for under this Implementation Contract. The City or Construction Contractor, as applicable, shall provide Thales written notice by facsimile of suspension of payment and explanation of the suspension for Thales' non-performance no later than the date payment is due.

4.8. For Work performed under this Implementation Contract by a subcontractor other than a Thales Affiliate, the following shall apply:

a. The Controller is not authorized to pay invoices prior to Thales' submission of HRC Progress Payment Form (attached hereto as Appendix E). If Progress Payment Form is not submitted with Thales' invoice, the Controller will notify the SFMTA and Thales of the omission. If Thales' failure to provide HRC Progress Payment Form is not explained to the Controller's reasonable satisfaction, the Controller will withhold 20% of the payment due pursuant to that invoice until HRC Progress Payment Form is provided.

b. Following City's payment of an invoice, Thales has ten (10) days to file an affidavit using HRC Payment Affidavit verifying that all subcontractors have been paid and specifying the amount.

4.9. The City will make a good faith effort to pay all undisputed invoices within thirty (30) days of receipt, but the City shall have no liability to Thales for interest due to late payment by Contractor or by City. In the event that City does not make payment within a reasonable amount of time after such thirty (30) day period or is unable to make payments after such thirty (30) day period, then Thales will have the right to suspend the Work until such payment arrangements are mutually agreed upon by the Parties.

4.10. Where Work or Additional Work is not paid on an agreed-lump sum basis (such as cost-reimbursement plus fixed-fee basis), reimbursement of costs and other payment arrangement shall be governed by 48 CFR Subparts 49.2 and 49.3 to the extent that those principles are in accord with the cost principles for local governments set out in the Office of Management and Budget Circular A-97.

4.11. Except as specifically provided for in the Equipment Contract or elsewhere in this Implementation Contract, the City shall not be obligated to pay for Proprietary Equipment or Software or other materials provided by Thales until said Proprietary Equipment or Software is incorporated into or otherwise used to benefit the Project. The SFMTA may in its discretion pay for certain Long Lead Items and other specifically identified materials that are stored as required under this Implementation Contract (or are stored as provided in the Equipment Contract at Section 4.8), on or off the Site only as set out herein. The City may make payment for such materials or Proprietary Equipment if it is: (i) unique to the Work and approved by the City for prepayment in advance; and (ii) either stored on the Site or at an off-Site location approved in advance and in writing by the Engineer. Should the City agree to make payment for such Long Lead Items, all of the following shall apply:

- a. Thales shall submit to the City proof of purchase for approved Long-Lead Proprietary Equipment and Software procurement by bills of sale, invoices, or other documentation warranting that Thales has received such materials free and clear of all liens, charges, security interests, and encumbrances.
- Title to stored materials (including but not limited to Proprietary Equipment and b. Software) shall be vested in the City upon payment by City to Thales for such materials. Thales shall provide written confirmation of the transfer of title as a condition of payment. If such materials to be stored are delivered to Thales free on board manufacturer, then, upon payment by City to Thales pursuant to Paragraph 4.9, e below, title shall pass to City at the manufacturer's loading dock. Thales shall obtain a negotiable warehouse receipt, endorsed over to the City, for such materials stored in an off-Site warehouse. The City shall not make any payment for such materials until endorsed receipts are delivered to the City. Thales, at no additional cost to the City, shall insure stored materials against theft, fire, loss, vandalism, and malicious mischief covering said stored materials while in storage off-Site, in transit, and on-Site until incorporated into the Work. Thales shall deliver the policy or certificate of such insurance to the Engineer naming the City as additional insured or loss payee as applicable. Insurance shall not be cancelled without a minimum of 30 Days notice to the SFMTA as provided in the notice requirements of this Implementation Contract,

and cancellation shall not be effective until such notice thereof is given to the City.

- c. The maximum prepayment for Long Lead Items shall be 75 percent of the fair market value of the material prepaid. The City shall be the sole judge of fair market value.
- d. Thales shall protect stored Proprietary Equipment and materials from damage. Damaged Proprietary Equipment and materials, even though paid for, shall not be incorporated into the Work
- e. Upon reasonable notice to Thales, stored Proprietary Equipment and materials shall be available for inspection by the City.
- f. Thales shall deliver stored Proprietary Equipment and materials from storage to the Site at no cost to the City.
- g. After delivery of stored materials and Proprietary Equipment to the Site, if any inherent or acquired defects are discovered therein, such defective materials or Proprietary Equipment shall be removed and replaced with suitable materials at no additional cost to the City.
- h. Thales shall be responsible for the loss or damage of the Proprietary Equipment and other materials provided to the Work by Thales under this Implementation Contract until said equipment and materials are delivered to the Site for installation by the Construction Contractor. In the event of such loss of or damage of Proprietary Equipment and materials prior to delivery to the Site, Thales shall be responsible for replacing the lost or damaged Proprietary Equipment and materials at its own cost and shall be responsible for all delays incurred on the Project as a result of such loss or damage. The City will credit to Thales amounts subsequently recovered from an insurer for the loss of the materials.
- i. Nothing in this Section shall relieve Thales of its responsibility for performing the Work, including provision of services, Proprietary Equipment and Software that conform to the requirements of the Implementation Contract.

4.12. Price Validation. Within 120 Days of the Effective Date of this Equipment Contract, the SFMTA may engage a third party auditor to confirm that the price for the Proprietary Equipment is fair and reasonable as required under Federal Transit Administration, Department of Transportation contracting requirements. If the audit finds that the price is not reasonable, the Parties shall confer to reconcile the price for the Proprietary Equipment with the audit. If it is not possible to reconcile the price, the SFMTA may terminate or issue direction to the Construction Contractor (as applicable) to terminate this Equipment Contract.

5. TERM AND EFFECTIVE DATE OF AGREEMENT.

5.1. Term of the Agreement. Subject to Section 14.1 (Certification of Funds) below, the Term of this Implementation Contract shall commence from the Effective Date (as provided in Section 5.2, below), and unless terminated earlier in accordance with the terms of this Implementation Contract, will continue in force and effect until the expiration of the Warranty Period.

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5.2. Effective Date of the Agreement, NTP, and Assignment. This Implementation Contract shall become effective when (a) authorized officers of both Parties have approved and executed this Implementation Contract; (b) the SFMTA has certified to the availability of funds as stated in Section 14.1, of this Implementation Contract and Thales has been so notified in writing, and (c) the SFMTA has issued Notice to Proceed ("NTP") to Thales to commence with the design Work for the ATCS. The SFMTA intends to issue NTP to Thales to commence the design Work for the ATCS no later than 60 Days after the Effective Date of this Implementation Contract.

6. ASSIGNMENT OF THIS AGREEMENT TO THE CONSTRUCTION CONTRACTOR.

6.1. Assignment of Agreement. This Implementation Contract shall be assigned from the SFMTA to the Construction Contractor selected to construct the stations, surface improvements, trackway, and control, signaling, and power traction systems for the Central Subway under the Construction Contract (SFMTA Agreement No. 1300), as provided in this Article 6. Said Construction Contractor has been selected under the competitive low bid processes and requirements for public works contracts set out in Chapter 6 of the San Francisco Administrative Code and as otherwise required by law. The Construction Contractor will be required to accept the assignment of this Implementation Contract from the SFMTA. Following Assignment of this Implementation Contract, Thales shall be a subcontractor to the Construction Contractor for the purposes of completing the ATCS design, and installing and testing the ATCS and certifying it for Revenue Service. Thales agrees to said Assignment as a condition and requirement of this Implementation Contract.

6.2. Effective Date of Assignment. The Assignment shall be effective immediately upon the SFMTA's execution of a modification to the Construction Contract effecting the Assignment of this Implementation Contract to the Construction Contractor, which date shall be the Effective Date of the Assignment. The SFMTA shall provide written notice to Thales upon the SFMTA's execution of said modification of the Construction Contract, which shall serve as notice to Thales that the Assignment of this Implementation Contract has been effected.

6.3. Scope of Assigned Work. Following Assignment of this Implementation Contract, Thales shall perform the Work described in this Implementation Contract, including but not limited to provision of the Proprietary Equipment, Software, ATCS engineering and implementation oversight services as described in Appendix A to this Implementation Contract. Thales may, by separate agreement with the Construction Contractor, provide such other services as it is gualified to perform.

6.4. Compensation. Except as specifically provided in this Implementation Contract or as provided under applicable law, the City's obligations to pay and liability for payment of compensation to Thales under this Implementation Contract shall be limited to the compensation stated in Article 4 and in the Pricing and Milestone Payment Schedule set out in Appendix C of this Implementation Contract, which following Assignment shall be paid by the Construction Contractor. Said limitation not shall preclude Thales from seeking additional compensation under a contract claim in accordance with the terms of this Implementation Contract prior to Assignment or in accordance with the requirements of California Government Code section 900 et seq. and San Francisco Administrative Code Article 10.

6.5. Terms and Conditions of Assignment. The following terms and conditions shall apply to the Assignment of this Implementation Contract:

- a. Assignment. Except as specifically set forth in this Implementation Contract as a Reserved Right (as set out in Section 6.5.e., below), the SFMTA as assignor shall assign, transfer and convey to the Construction Contractor as assignee the SFMTA's right, title and interest in and to the Implementation Contract and all of the SFMTA's duties and obligations there under, to the extent arising on or after the Effective Date of the Assignment.
- b. **Assumption.** The Construction Contractor shall be required to accept the assignment transfer and conveyance of this Implementation Contract and shall be required to perform all of the City's duties and obligations under the Implementation Contract, to the extent arising on or after the Effective Date of the Assignment.
- c. **Further Assurances.** From and after the Effective Date of this Assignment, the City and Thales shall each do such things, perform such acts, and make, execute, acknowledge and deliver such documents as may be reasonably necessary or proper and usual to complete the conveyance contemplated by this Assignment.
- d. **Successors; Third-Party Beneficiaries.** Subject to the terms of the Implementation Contract, this Assignment shall be binding upon, and inure to the benefit of, the City and Thales and their respective successors and assigns. Nothing in this Assignment, whether express or implied, shall be construed to give any person or entity other than City, Thales, and the Construction Contractor and their respective successors and assigns any legal or equitable right, remedy or claim under or in respect of this Assignment or any covenants, conditions or provisions contained herein. The City shall be a third party beneficiary of all obligations of Thales set out in this Implementation Contract.
- e. **Reserved Rights.** Following Final Acceptance of the Work performed under the Construction Contract, for any claim or action that may arise or otherwise become actionable after said Final Acceptance, the City and Thales shall each have the right to seek any legal remedy and shall have the right to enforce any provision of this Implementation Contract that survives the expiration or termination of this Implementation Contract (as provided in Section 14.44) against the other.

6.6. City is Third Party Beneficiary. Following Assignment of this Implementation Contract to the Construction Contractor, as to the Work performed and the Proprietary Equipment and Software provided under this Implementation Contract the City shall be an intended third party beneficiary and shall have the right to enforce any provision of this Implementation Contract subject to the requirements of Paragraph 6.7 below.

6.7. Notification Process for Third Party Beneficiary Rights. The City agrees, through prior written notification, to only assert its right as a third party beneficiary where Thales has failed to cure a material breach or default of this Implementation Contract Notwithstanding the foregoing, the City will have no right to exercise its third party beneficiary rights hereunder unless it first provides written notification with reasonable detail a description of the material breach. Thales and /

or the Construction Contractor will have the time period specified in said Section 14.01 of the General Provisions to remedy any such material breach and upon the expiration of such time period, if said breach is not cured or Thales fails to present a plan acceptable to the City to cure said breach, the City may then assert its third party beneficiary rights.

6.8. Direct Remedy. Thales waives any defense or other right (including but not limited to challenge of privity between Thales and the City following Assignment) that might prevent or hinder the City from seeking its remedies directly against Thales, rather than seeking said remedies from the Construction Contractor.

6.9. Beneficial Use. As provided in Section 2.08 ("Owner's Beneficial Use") of the General Provisions of the Construction Contract, the City may have Beneficial Use of the Work prior to Final Completion and Final Acceptance. But the City shall not have Beneficial Use of the ATCS until the Work under this Implementation Contract has reached Substantial Completion and Thales has issued to the SFMTA a safety certificate authorizing the SFMTA to commence Revenue Service.

6.10. Order of Precedence of Documents. Except as specifically provided herein, upon the Effective Date of the Assignment, this Implementation Contract shall be a subcontract to the Construction Contract and Thales shall be subject to the terms and conditions of the Construction Contract as those terms are applicable to a subcontractor.

6.11. Reassignment of Contract to City. When the Central Subway enters Revenue Service, the SFMTA will require by modification of the Construction Contract that the Construction Contractor reassign this Implementation Contract and the rights and obligations thereunder back to the City. Thales agrees that it will not object to such reassignment of this Implementation Contract, and will do all things reasonably necessary to assist in effecting said reassignment

6.12. No Limitation on Thales to Contract to Provide Non-Proprietary Services, Equipment of Software. This Implementation Contract is intended to cover Proprietary Equipment, Software and related services (Work) that is proprietary to and available only from Thales. This Implementation Contract shall not preclude Thales from providing on a negotiated, competitive basis such other services, equipment, and software that are not proprietary to Thales, but which Thales is qualified to provide to the Construction Contractor as a subcontractor or supplier.

7. INDEMNITY.

7.1. Obligation to Defend and Indemnity.

a. To the fullest extent permitted by law and except as specifically provided otherwise in this Implementation Contract, upon the City's providing notice to Thales as provided in Paragraph 7.1.b) as to any claim, administrative action, or lawsuit brought by a third party against the City for any loss of or damage caused by or arising from the negligent or intentional acts of Thales or its subcontractors arising from the Work. Thales shall assume the defense of said claim, administrative action, or lawsuit, indemnify and save harmless the City, its boards, commissions, officers, and employees (collectively "Indemnitees").

Subject to the requirements and limitations in Paragraph 7.3.b, said indemnification shall include any and all claims, suits, actions, losses, costs, damages, injuries (including, without limitation, injury to or death of an employee of Thales or its subconsultants), expense and liability of every kind, nature, and description (including, without limitation, direct, economic, indirect, incidental and consequential (special) damages incurred by said third parties, court costs, attorneys' fees, litigation expenses, fees of expert consultants or witnesses in litigation, and costs of investigation), that arise out of, result from, connected with, pertain or relate to, directly or indirectly, in whole or in part, the negligence, recklessness, or willful misconduct of Thales, any of its subconsultants or Affiliates, anyone directly or indirectly employed by them, or anyone that they control (collectively, "Liabilities") in the performance of the Work.

- b. The indemnification contained herein is subject to the City: (i) providing Thales with prompt written notice of the claim; (ii) granting Thales sole control of the defense to the claim except that Thales may not enter into any settlement that would adversely impact the City's rights or impose liability upon the City without its prior written consent; and, (iii) providing reasonable cooperation in the defense of the claim.
- c. The terms, conditions, provisions, and failure to cover of any insurance policy covering Thales' performance under this Implementation Contract shall not operate to limit Thales' Liabilities under this Implementation Contract. Nor shall the amount of insurance coverage operate to limit the extent of such Liabilities.
- d. Thales assumes no liability whatsoever for the sole negligence, active negligence, or willful misconduct of any Indemnitee.

7.2. Limitation of Liability.

- a. The City's total liability to Thales for the Work shall be limited to the value of the Work completed in accordance with the requirements of this Implementation Contract, said amount not to exceed the Contract Amount stated in Article 4, as that amount may be modified by a properly approved and executed Change Order.
- b. Except as provided herein, Thales' total liability to the City under this Implementation Contract shall be limited to the aggregate sum of the Contract Amounts of the Implementation Contract and the Equipment Contract, as those amounts are stated in the respective Article 4 of each of those agreements, as those amounts and the aggregate sum of those amounts may be modified by a properly approved and executed Change Order. Said limitation on liability shall not apply to:

(1) damages and other liability caused by Thales's willful, intentional acts or omissions;

(2) any applicable statute, City Ordinances, and Codes;

(3) damages that fall within the insurance coverages required under the Implementation Contract;

(4) Thales's warranty obligations under the Implementation Contract and the Construction Contract;

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(5) damages and other liability arising under claims by third parties, including indemnity or contribution for claims brought by a third party (see Paragraph 7.1.a);

(6) liability for violation of regulations and laws;

(7) damages and other liability for infringement of any intellectual property right as provided in Section 7.5;

(8) damages and other liability allocated to Thales by separate agreement negotiated between Thales and the Construction Contractor arising from work that is not covered under this Implementation Contract, that is, liability and damages that do not arise from Thales' performance of "Work" (as the term "Work" is defined in this Implementation Contract).

7.3. Limitations on Special Damages. The City and Thales's respective liabilities to each other for special, incidental, consequential, and indirect damages are hereby limited as follows:

- a. The City, its boards and commissions, and all of their officers, agents, members, employees, and authorized representatives shall have no liability to Thales for any type of special, consequential, indirect or incidental damages, including but not limited to losses of use, data, profit, revenue, income, business, anticipated savings, reputation, and more generally, any losses of an economic or financial nature, whether these may be deemed as consequential or arising directly and naturally from the incident giving rise to the claim, arising under or related to this Implementation Contract or under any cause of action related to the subject matter of this Implementation Contract, whether in contract, tort (including negligence), strict liability, or otherwise. This limit of liability applies under all circumstances including, but not limited to, the breach, completion, termination, suspension, cancellation or recession of the Work or this Implementation Contract, negligence or strict liability by the City, its boards and commissions, and their representatives, consultants or agents.
- Except as specifically provided in this Implementation Contract, Thales, and its b. Affiliates, employees, officers, directors and shareholders, shall not be liable to the City for any special, consequential, indirect or incidental damages. including but not limited to losses of use, data, profit, revenue, income, business, anticipated savings, reputation, and more generally, any losses of an economic or financial nature, whether these may be deemed as consequential or arising directly and naturally from the incident giving rise to the claim arising under or related to this Implementation Contract or under any cause of action related to the subject matter of this Implementation Contract, whether in contract, tort (including negligence), strict liability, or otherwise. Except as provided herein, this limit of liability applies under all circumstances including. but not limited to, the breach, completion, termination, suspension, cancellation or recession of the Work or this Implementation Contract, negligence or strict liability by Thales. Under no circumstances shall this limit of liability apply to or limit Thales's liability with respect to any of the following:

(1) Thales's obligation to pay liquidated damages as defined by the requirements and dollar limitations as set forth in Paragraph 13.3.a of this Implementation Contract or as otherwise agreed with the Construction Contractor;

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(2) damages and other liability caused by Thales's willful, intentional acts or omissions;

(3) liability (statutory damages) imposed on Thales by law, including any applicable statute, City Ordinances, and Codes;

(4) damages and other liability arising under claims by third parties for loss or damage to property or personal injuries, including death;

(5) liability for violation of environmental regulations and laws;

(6) damages and other liability for infringement of any intellectual property right as provided in Section 7.4.a.

7.4. Indemnity for Infringement of Intellectual Property Rights.

- a. Thales shall indemnify, defend, and hold City and the Construction Contractor harmless from all loss and liability, including attorneys' fees, court costs and all other litigation expenses for any infringement of the patent rights, copyright, trade secret or any other proprietary right or trademark, and all other intellectual property claims of any person or persons in consequence of the use by City of the Proprietary Equipment or Software to be supplied in the performance of this Implementation Contract. Thales shall at its sole expense and election, provided any such election does not result in any cost to the City or the Construction Contractor; or (2) obtain the right to use the infringing item; or (3) modify the infringing item so that it becomes non-infringing; or (4) replace the infringing item with a non-infringing item, subject to the requirements of Paragraph d., below.
- b. Thales shall have no obligations hereunder with respect to intellectual property infringements caused by: (1) Thales' compliance with the City's designs; (2) City's use or combination of the Software or Proprietary Equipment with products or data of the type for which the Proprietary Equipment and Software was neither designed nor intended; or (3) the modification of the Software or Proprietary Equipment without Thales' prior written consent.
- c. The provisions of this Section 7.4 shall be the City's sole remedy for infringement claims and is conditional upon City (and if applicable, the Construction Contractor): (1) giving prompt notice in writing to Thales of any claim or proceeding being made or threatened; (2) allowing Thales to defend and settle under its responsibility any proceedings or claims through counsel chosen by Thales at Thales' own expense and (3) affording all reasonable assistance in connection therewith.
- d. Thales shall be entitled to modify or replace any infringing item so that it becomes non-infringing, or in the event that such modification or replacement is not possible using reasonable technical efforts, to replace the item concerned with another item that meets the performance requirements relevant to the replaced item.
- e. The City may in its discretion enforce the provisions of this Section 7.5 and seek its remedies directly against Thales or the Construction Contractor, irrespective of the assignment of this Implementation Contract to the Construction Contractor. Thales shall not refuse to meet its obligations under

this Section 7.5 based on any theory of a lack of privity between Thales and the City.

7.5. **Responsibility for Equipment.** City shall not be responsible for any damage to persons or property as a result of the use, misuse or failure of any equipment or tools provided by and used by Thales, or by any of its employees, for the purposes of performing any services hereunder, irrespective of whether Thales, the City or the Construction Contractor provided, rented or loaned said equipment or tools to Thales.

7.6. Release of Hazardous Materials. Thales acknowledges that any claims, demands, losses, damages, costs, expenses, and legal liability that arise out of, result from, or are in any way connected with the release or spill of any legally designated hazardous material or waste or contaminated material as a result of the Work performed under this Implementation Contract are expressly within the scope of the indemnity set out in this Article, and that the costs, expenses, and legal liability for environmental investigations, monitoring, containment, removal, repair, cleanup, restoration, remedial work, penalties, and fines arising from the violation of any local, state, or federal law or regulation, attorney's fees, disbursements, and other response costs are expressly within the scope of this indemnity.

7.7. Joint and Several Liability. If Thales is a joint venture partnership, the requirements of this Article shall apply jointly and severally to each joint venture partner.

8. INSURANCE.

Note: The parties agreed to amend this Section 8 prior to final execution of the Agreement; deleted text is lined-through, and added text is underlined. The parties' assent to these changes are indicated by the authorized signatures of parties' representatives at the end of this Section.

Thales shall maintain in full force and effect, from the Effective Date of this Implementation Contract through Final Acceptance of all work performed under the Construction Contract, the insurance as described in this Article, with the minimum specified coverages or coverages as required by laws and regulations, whichever is greater, as set out below. Contractor may use the same insurance policies to satisfy the aggregate insurance requirements of this Implementation Contract and the insurance requirements of the Equipment Contract.

> 8.1. Worker's Compensation Insurance. Thales shall provide workers compensation insurance in statutory amount, including Employers' Liability coverage with limits not less than Two Million Dollars (\$2,000,000) each accident, injury, or illness, including coverage, as applicable, for U.S. Long Shore and Harbor Workers' Act benefits and Jones Act benefits, and Federal Employers Liability Act. The Worker's Compensation policy shall be endorsed with a waiver of subrogation in favor of the City for all work performed by Thales, its employees, agents and subcontractors.

8.2. Commercial General Liability insurance. Thales shall provide commercial general liability insurance that is project specific (i.e., specific to the Work under this Implementation Contract) with aggregate coverage limits not less than Fifty Million Dollars (\$50,000,000) each occurrence combined single limit for bodily injury and property damage, including coverage for Contractual Liability, independent Thales, Explosion, Collapse, and Underground (XCU), Personal Injury, Broadform Property Damage, products, and completed operations. <u>Thales may</u>

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meet this requirement with one or more primary, umbrella, and/or excess general liability insurance policies that generally cover its corporate projects and operations, provided that should a claim or claims be paid by said policy or policies that total in the aggregate more than Five Million Dollars (\$5,000,000 US), Thales shall within ten Days of receipt of such claim(s) provide notice of same to the SFMTA and obtain additional insurance so that Thales' Work under this Equipment Contract and the Implementation Contract is at all times fully covered in the amount of Fifty Million Dollars (\$50,000,000 US), as provided herein.

8.3. **Commercial Automobile Liability Insurance.** Thales shall provide commercial automobile liability insurance with limits not less than Two Million Dollars (\$2,000,000) each occurrence combined single limit for bodily injury and property damage, including owned, hired or non-owned vehicles, as applicable.

8.4. Risk of Loss Coverage for Proprietary Equipment and Software. Thales shall insure Proprietary Equipment against loss prior to City's acceptance, as required by Section 14.14 of this Implementation Contract.

8.5. Forms Of Policies And Other Insurance Requirements.

- a. Before commencement of the Work of this Implementation Contract, certificates of insurance and policy endorsements in form acceptable to the City and with insurers acceptable to the City, evidencing all required insurance and with proper endorsements from Thales's insurance carrier identifying as additional insureds the Indemnitees, shall be furnished to the City, with complete copies of policies to be furnished to the City promptly upon request. Thales shall deliver appropriate bond and insurance certificates and endorsements acceptable to the City within five Working Days of the date the Implementation Contract is awarded.
- b. Approval of the insurance by the City shall not relieve or decrease the extent to which Thales or subcontractor of any tier may be held responsible for payment of any and all damages resulting from its operations. Thales shall be responsible for all losses not covered by insurance, excluding damage caused by earthquake and flood (whether caused by storm or tidal wave) consistent with section 7105 of the California Public Implementation Contract Code in excess of 5 percent of the Implementation Contract Sum, including the deductibles. All policies of insurance and certificates are subject to review by the City and shall be satisfactory to the City.
- c. Thales and its subcontractors shall comply with the provisions of California Labor Code section 3700. Prior to commencing the performance of Work, Thales and all of its subcontractors shall submit to the awarding department a certificate of insurance against liability for workers compensation or proof of self-insurance in accordance with the provisions of the California Labor Code.
- d. Liability insurance, except for professional liability insurance, shall be on an occurrence basis, and said insurance shall provide that the coverage afforded thereby shall be primary coverage (and non-contributory to any other existing valid and collectable insurance) to the full limit of liability stated in the declaration, and such insurance shall apply separately to each insured against whom claim is made or suit is brought, but the inclusion of more than one insured shall not operate to increase the insurer's limits of liability.

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- e. Except for professional liability insurance and general liability insurance, should any of the required insurance be provided under a form of coverage that included an annual general aggregate limit or provides that claims investigation or legal defense costs be included in such annual general aggregate limit, such general aggregate limit shall be two times the occurrence limits stipulated.
- f. Should any of the required insurance be provided under a claims-made form, Thales shall maintain such coverage continuously throughout the Term of this Implementation Contract, and without lapse, for a period of five (5) years beyond the Implementation Contract Final Completion date, to the effect that, should occurrences during the Implementation Contract Term give rise to claims made after expiration of the Implementation Contract, such claims shall be covered by such claims-made policies.
- g. If a subcontractor will be used to complete any portion of this agreement, Thales shall ensure that the subcontractor shall provide all necessary insurance and shall include the City and County of San Francisco, its officers, agents and employees and Thales listed as additional insureds.
- h. All insurance policies required to be maintained by Thales hereunder shall be endorsed to provide for thirty (30) Days prior written notice of cancellation for any reason, intended non-renewal, or reduction in coverage to the City. All notices shall be made to:

Deputy, Contract Administration Capital Programs and Construction SFMTA 1 South Van Ness Avenue, 3rd Floor San Francisco, CA 94103

and to:

Program Manager Central Subway Project SFMTA 1 South Van Ness Avenue, 3rd Floor San Francisco, CA 94103

and to:

Risk Management Division City and County of San Francisco 25 Van Ness Avenue, Suite 750 San Francisco, CA 94102

i. Thales, upon notification of receipt by the City of any such notice, shall file with the City a certificate of the required new or renewed policy at least 10 Days before the effective date of such cancellation, change or expiration, with a complete copy of new or renewed policy.

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j. If, at any time during the life of this Implementation Contract, Thales fails to maintain any item of the required insurance in full force and effect, all Work of this Implementation Contract may, at City's sole option, be immediately suspended, and all Implementation Contract payments due or that become due will be withheld, until notice is received by the City as provided in the immediately preceding Paragraph 7 that such insurance has been restored to full force and effect and that the premiums therefore have been paid for a period satisfactory to the City.

8.6. Joint and Several Liability. If Thales is a joint venture partnership, the liability of each partner of the joint venture shall be joint and several. No insurance policy providing coverage under this Implementation Contract shall contain any provision prohibiting coverage of a joint venture partnership or otherwise limiting coverage any joint venture partner.

8.7. Indemnitees.

- a. For general liability insurance, Thales shall include as additional insureds the City and County of San Francisco, its board members and commissions, and all authorized agents and representatives, and members, directors, officers, trustees, agents and employees of any of them.
- b. With the exception of professional liability insurance, Thales shall include as additional insured or exclusive loss payee on all policies the City and County of San Francisco, its board members and commissions, and all authorized agents and representatives, and members, directors, officers, trustees, agents and employees of any of them.

8.8. Insurer Qualifications. Insurance companies providing coverage for this Implementation Contract shall be legally authorized to engage in the business of furnishing insurance in the State of California. All insurance companies shall have a current A.M. Best Rating not less than "A-,VIII" and shall be satisfactory to the City.

8.9. Application of these Insurance Requirements.

- a. Should Thales be awarded the Construction Contract (as a prime contractor or as prime joint venture partner), Thales shall maintain the insurance provided in this Article to cover the Work performed under this Implementation Contract, as set out in this Implementation Contract, unless the City in its sole discretion determine that such insurance is duplicative of the insurance provided by the Construction Contractor. Should the City determine that said insurance is duplicative, the City shall be entitled to a credit, subject to proof, of the insurance premium saved by relieving Thales of said insurance requirements.
- **b.** Should the City in its sole discretion determine that insurance required under this Implementation Contract is duplicative of the insurance provided by the Construction Contractor, the City shall be entitled to a credit, subject to proof, of the insurance premium saved by relieving Thales of said duplicative insurance requirements.

Edward D. Reiskin Director of Transportation SFMTA John Brohm President & CEO Thales Transport & Security, Inc.

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9.

NO PRIOR AGREEMENT WITH OR EXCLUSIVE RELATIONSHIP TO CONSTRUCTION CONTRACTOR.

9.1. Thales acknowledges that a material and central purpose of this Implementation Contract is to ensure that as to the provision of ATCS Proprietary Equipment and Software and related services necessary to construct and implement the ATCS all qualified construction contractors are provided equal opportunity to submit a bid for award of the Construction Contract, and no contractor shall be provided an unfair advantage in the pricing of said ATCS Proprietary Equipment and Software and related necessary services. Thales therefore certifies and warrants that prior to the Effective Date of this Implementation Contract it has not entered into or otherwise negotiated any exclusive agreement, relationship, arrangement with any contractor that may bid on the Construction Contract that would provide any contractor with an unfair competitive advantage in bidding or could otherwise be considered collusion. Thales further agrees and warrants that it shall not enter into any such exclusive agreement, relationship or arrangement or take any other action that may provide any potential bidder for the Construction Contract with an unfair competitive advantage as to the design, procurement, installation and testing of the ATCS and other services to be provided under this Implementation Contract.

9.2. To help ensure that the bidding process for selection of the Construction Contractor is fair and competitive, the SFMTA and Thales shall not respond directly to any question or inquiry from any potential or actual Bidder to the Construction Contract. The SFMTA shall receive questions from Bidders to the Construction Contract concerning Thales' Work under this Implementation Contract and the ATCS, and the SFMTA shall forward those questions to Thales. The SFMTA shall receive Thales' responses and will publish those responses by addenda to the Bid Documents for the Construction Contract or other appropriate publication.

10. WARRANTY.

- a. Thales warrants that the Work will be performed in a professional and workmanlike manner. Thales warrants that all Proprietary Equipment and Software supplied under this Implementation Contract and the Equipment Contract shall be free from defects in material and workmanship for a period of three (3) years (the "Warranty Period") commencing upon the SFMTA's determination that all Work performed under the Construction Contract has reached Substantial Completion. The Work provided under this Agreement and the Proprietary Equipment procured under the Equipment Contract are covered under a unified warranty that applies to the operations of the ATCS and its constituent parts, including but not limited to the Proprietary Equipment and Software.
- b. Pursuant to the Construction Contract at Specifications, Section 34 42 31, at paragraph 3.01.B of, testing for the Reliability Demonstration Test ("RDT") shall commence when Revenue Service has begun. Successful completion of RTD is a prerequisite for determination of Final Completion of the Work under this Implementation Contract and under the Construction Contract. The SFMTA shall not commence Revenue Service (and Thales therefore shall not commence the RTD) until the Work under this Implementation Contract has reached Substantial Completion and Thales has provided the SFMTA a safety certificate.

- c. Thales's obligation under this warranty shall be limited to the correction, repair or replacement of the nonconforming Proprietary Equipment or Software, or any part thereof. The City acknowledges that Thales' Software may contain open source software or other software not developed by Thales. If during the Warranty Period such open software, firmware or other software not developed by Thales should malfunction or otherwise fail to operate in such a way that the ATCS does not meet the performance specifications of this Implementation Contract, Thales shall at no cost to the City replace or modify said software so that the ATCS meets said performance specifications. It is the intent of the Parties that the warranty shall guarantee the utility and performance of the ATCS; the choice of software and other constituent elements of the ATCS implemented to meet the ATCS performance specifications are wholly within the control of Thales.
- This warranty is conditioned on the City notifying Thales in writing of any defect d. within the warranty period. The warranty shall not apply to wear and tear. consumable items and to defects arising from or connected with: (i) The City's or any third party's improper receipt, transport, handling, storage, maintenance. testing, installation, operation and use of the Proprietary Equipment or Software; (ii) Such Proprietary Equipment or Software having been operated beyond its rated capacity or not having been operated and maintained in all respects in a normal and proper manner in accordance with the instructions or manuals provided by Thales or having been subject to neglect or abuse after delivery to the City or third parties; and/or (iii) an alteration, modification, maintenance, overhaul or repair made on the Proprietary Equipment or Software by anyone other than Thales or those specifically authorized by Thales: provided further that this warranty shall not apply to third party products or services that were not provided by Thales, third party Software, including, but not limited to, Open Source Software, but which may be required for the operation of the Proprietary Equipment or Software.
- e. Contractor disclaims and the City waives any and all implied warranties, including, but not limited to, any and all implied warranties that may be applicable under the Uniform Commercial Code or other applicable statutes, including implied warranties arising by usage or custom of trade.

11. SOFTWARE AND ATCS DOCUMENTATION LICENSE.

11.1. The City is hereby granted a non-exclusive, non-transferable, perpetual, restricted license to use the Software from the date of full payment for same for the operation, monitoring, and maintenance of the ATCS. The City is hereby granted a non-exclusive, non-transferable, perpetual, restricted license to use the ATCS Documentation from the date of full payment for same for the operation, monitoring, maintenance of the ATCS and for purposes of confirming the safe operation and safety certification of the ATCS to the Federal Transit Agency, the California Public Utilities Commission and other regulatory agencies. The City has no right to grant sublicenses to the Software or Documentation. Thales warrants that it has the title to and/or authority to grant said license(s) and sublicenses(s) to the City.

11.2. Notwithstanding anything to the contrary contained in this Implementation Contract, it is understood that the City receives no title or ownership rights to the Software or Documentation, and all such rights shall remain with Thales or its suppliers.

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11.3. The Software, Documentation or any renewals, extensions or expansions hereof shall, as between the Parties, be treated as proprietary and a trade secret of Thales or its suppliers and be subject to the provisions of the Mutual Nondisclosure Implementation Contract appended hereto as Appendix F.

11.4. The City agrees that the license to use the Software may contain freely available Software (referred to hereafter as "Open Source Software") obtained by Thales from a third party source. No license fee has been paid by Thales for the inclusion of any such Open Source Software, and no license fee is charged to City for its use. City acknowledges and agrees that neither Thales, nor the third party source, provides any warranties for the Open Source Software, other than stated in Section 10.b.

11.5. The City shall not:

- a. Make any copies of the Software or parts thereof, except for archival back up purposes and when making copies as permitted herein, shall transfer to the copy/copies any copyright or proprietary legends or other marking on said Software; or
- b. Use said Software for any other purpose than permitted in this Article 11; or
- c. Translate, reverse engineer, adapt, arrange or error-correct or make any other alterations to said Software.

11.6. The City may as necessary for the continued maintenance and certification of the ATCS, provide copies of ATCS System Documentation to regulatory agencies with jurisdiction over the SFMTA and to consultants engaged by the SFMTA to assist in the maintenance, operation and certification of the ATCS. The City may release System Documentation and provide access to ATCS Software to City consultants only under a confidentiality agreement that imposes on City consultants the same obligations as to confidentiality of Thales' intellectual property as is placed on the City under this Implementation Contract.

11.7. Thales shall comply with the Three Party Software Escrow Agreement (to be entered as a prerequisite of Final Acceptance) between Thales, City and Iron Mountain Intellectual Property Management, Inc., with respect to the updating of the Deposit Material escrowed there under. The Software license is effective until terminated. The City may terminate this Software license at any time by destroying or erasing all copies of the Software and accompanying written materials in the City's possession or control. Said license will terminate upon written notice and reasonable opportunity to cure (which shall not be less than 30 days) from Thales if the City fails to comply with the terms and conditions of this license. Upon such termination, the City shall destroy or erase all copies of the Software (together with all modifications, upgrades and merged portions in any form) and any accompanying Documentation in the City's possession or control.

11.8. Copies of Software and Documentation. SFMTA shall make available to Thales as needed a copy of all the Software installed and related Documentation, and a copy of certificates of the software licenses provided by third-parties for integration of those products to the ATCS to other systems or other purpose necessary for the Work.

11.9. ATCS Documentation License. Thales shall supply two printed copies and an electronic printable version of the Documentation to the City for Proprietary Equipment and Software purchased under this Equipment Contract. The

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City may make copies of the Documentation to the extent necessary to maintain one (1) archive version and as required to train its employees in the operation and maintenance of the ATCS provided always that all copyright, confidentiality or proprietary legends or other markings shall be transposed onto such permitted copies. The Documentation and all permitted copies thereof shall at all times be treated as proprietary and a trade secret of Thales or its subcontractors and be subject to the provisions of this Implementation Contract for Confidential Information.

11.10. The City shall not have the right to make any modifications to the Documentation.

12. PROTECTION OF CONFIDENTIAL AND SECURITY SENSITIVE INFORMATION.

12.1. Proprietary or Confidential Information. The Parties' respective obligations as to proprietary and confidential information are set out in the Mutual Nondisclosure Implementation Contract attached hereto as Appendix F, which is incorporated by reference as if fully set out here. The City shall be entitled to disclose Confidential Information on a need to know basis to consultants engaged by the Agency to assist in the design, testing, certification, and maintenance of the ATCS and the integration of ATCS data to other SFMTA systems, provided that said consultant(s) abide by the confidentiality terms of this Implementation Contract.

12.2. Security Sensitive Information.

a. Design Documents are Security Sensitive Information.

(1) The Drawings and related design documents that are provided to Thales to perform the Work under the Implementation Contract are Security Sensitive Information ("SSI Documents"), as that term is defined under applicable federal law and federal Department of Transportation security policies. 49 CFR 15 and 1520.

(2) The SSI Documents are identified by the markings printed on individual drawings and exterior covers of drawing sets that indicate that they are SSI Documents.

(3) The SSI Documents show detailed designs of the Central Subway Project. Thales recognizes that access to the SSI Documents by unauthorized persons or organizations would pose significant risk of grave harm to the Central Subway Project and public safety.

b. Use of SSI Documents.

(1) Thales shall use the SSI Documents only for the purposes of performing the Work under the Implementation Contract, and for no other purpose.

(2) Thales shall guard the SSI Documents safe and secure at all times from disclosure to unauthorized personnel, and shall only allow access to the SSI Documents to persons with a "need to know" for performing the Work. When the SSI Documents are not being used to perform the Work, Thales shall keep the SSI Documents in a locked, secure area so that the SSI Documents are not physically or visually accessible to persons who are not directly involved in the preparation of Thales' Proposal for the Implementation Contract. When unattended, the SSI Documents must be secured in a locked container, office, or other restricted access area with access to the keys or combination limited to those with a need to know.

(3) Thales shall not copy, publish, circulate or use any of the SSI Documents for any purpose other than performing the Work under this Implementation Contract, without first obtaining the SFMTA's written approval to do so.

- c. Disposal of the SSI Documents. After Final Acceptance of the Work or earlier termination of the Implementation Contract, Thales may keep one set of the SSI Documents for its internal use only, but shall return all other sets of SSI Documents or destroy them, as follows:
 - (4) SSI Documents shall be returned to:

San Francisco Municipal Transportation Agency Capital Programs and Construction Attention: Shahnam Farhangi 1 South Van Ness, 3rd floor San Francisco, CA 94103

(5) If not returned to the SFMTA, the SSI Documents must be destroyed in a manner that ensures recovery of the information contained therein would be difficult, if not impossible. Any means approved for the destruction of national security classified material such as machine shredding, may be used to destroy the SSI Documents. If no such means is available, the SSI Documents may be destroyed by cutting or tearing them into small pieces and assimilating it with other waste material. Compact discs or other physical electronic media containing the SSI Documents shall be broken to pieces. Electronic files containing the SSI Documents or any portion of them shall be deleted. Thales shall certify to the SFMTA in writing that the SSI Documents have been destroyed as required herein.

- d. Liability for Failure to Secure or Misuse of the SSI Documents. Thales shall be fully liable for any and all harm and damages that may arise from unauthorized persons or entities gaining access to the SSI Documents due to or arising from Thales' failure to adhere strictly to the requirements of this Article 12. In addition to civil liability, Thales is cautioned that violation of applicable laws and regulations concerning protection and use of Security Sensitive Information may subject Thales to federal penalties.
- e. Subcontractors. Thales shall include the provisions of this Article 12 in any agreement with Subcontractor or Supplier that will require access to the SSI Documents, and Thales shall be responsible for its Subcontractors' and Suppliers' adherence to the requirements of this Article.
- f. Reference Documents Designated as Security Sensitive Information. The Reference Documents and other materials designated Security Sensitive Information shall be handled in accordance with the requirements set forth in this Section.

13. SCHEDULE, DELAY AND LIQUIDATED DAMAGES.

13.1. Time Is of the Essence; Central Subway Project Schedule. Time is of the essence for the completion of the Work under this Implementation Contract. Thales shall devote sufficient resources and personnel to complete its Work within the Project Schedule, a copy of which is appended to this Implementation Contract as Appendix I, which is hereby incorporated by reference.

13.2. Commencement of Services. Thales' obligation to provide the services hereunder shall begin on the Effective Date of the Assignment of this Implementation Contract to the Construction Contractor.

13.3. Delays.

- Delay Due to Thales. By entering into this Implementation Contract, Thales a. agrees that in the event the Proprietary Equipment, Software or services Thales will provide under this Equipment Contract are delayed the City will suffer actual damages that will be impractical or extremely difficult to determine. For each Day that the Work under this Implementation Contract is delayed beyond the date for Substantial Completion stated in the Construction Contract, and such delay causes delay to the Substantial Completion of the Work of the Construction Contractor, and such delay is solely and directly attributable to Thales, then Thales shall pay to the Construction Contractor liquidated damages in an amount not to exceed Fifty Thousand Dollars (\$50,000) for every Day of delay for which the City assesses the Construction Contractor liquidated damages for delay. If the City does not assess liquidated damages against the Construction Contractor for delay that is solely and directly attributed to Thales, then Thales shall not be liable to the Contractor for said liquidated damages. Said liquidated damages are not a penalty, but are a reasonable estimate of the losses that the Construction Contractor and City will incur based on the delay, established in light of the circumstances existing at the time the City and Thales executed this Implementation Contract. The City shall subtract said amounts of liquidated damages from amounts that are due Thales. For the avoidance of doubt, notwithstanding any other provision of this Implementation Contract, Thales's liability for liquidated damages for delay to the Substantial Completion of the Work shall not exceed the aggregate sum of the Contract Amounts of the Implementation Contract and the Equipment Contract, as those amounts are stated in the respective Article 4 of each of those agreements, as those amounts and the aggregate sum of those amounts may be modified by a properly approved and executed Change Order.
- b. Delay Not Due to Thales. In the event that Thales incurs additional cost or delay in the scheduled milestones or timelines of the Work prior to Assignment due to: (1) any act, omission or delay of the City with respect to its obligations under this Implementation Contract; or (2) any circumstance not solely and directly attributable to Thales (3) another contractor or subcontractor to the Central Subway Project; or (4) delay in approval by a regulatory agency where such delay is not due to the ATCS not meeting regulatory requirements, the relevant Milestone dates shall be modified accordingly such that the scheduled milestones or timelines shall be extended for a period not less than the period of delay unless otherwise mutually agreed by the Parties. If such delay is attributable to the City, the City shall reimburse Thales for all reasonable additional costs and expenses incurred by Thales as a result of such delay.

14. GENERAL PROVISIONS.

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14.1. Certification of Funds; Budget and Fiscal Provisions; Termination in the Event of Non-Appropriation.

- a. This Implementation Contract is subject to the budget and fiscal provisions of the City's Charter. This Implementation Contract shall not come into force and effect and Thales shall have no obligation to perform hereunder until such time as City has provided prior written authorization certified by the Controller confirming the availability of funds to compensate the services, Software or Proprietary Equipment contemplated hereunder. The full amount of the City's payment obligations and Thales' performance obligations under this Implementation Contract shall not at any time exceed the amount certified for the purpose and period stated in such advance authorization. The certification of funds for this Implementation Contract shall be included in the certification of funds for the Construction Contract.
- b. This Implementation Contract will terminate without penalty, liability or expense of any kind to City at the end of any fiscal year if funds are not appropriated for the next succeeding fiscal year. If funds are appropriated for a portion of the fiscal year, this Implementation Contract will terminate, without penalty, liability or expense of any kind at the end of the Term for which funds are appropriated.
- c. City has no obligation to make appropriations for this Implementation Contract in lieu of appropriation for new or other agreements. City budget decisions are subject to the discretion of the Mayor and the Board of Supervisors. Thales' assumption of risk of possible non-appropriation is part of the consideration for this Implementation Contract.
- d. The City shall pay charges under this Implementation Contract, exclusively from legally available funds, to Thales or, in the event of an authorized assignment by Thales to its assignee, according to the terms of this Implementation Contract.
- e. Except as may be provided by laws governing emergency procedures, officers and employees of the City are not authorized to request, and the City is not required to reimburse Thales for services, Software or Proprietary Equipment beyond the agreed upon contract scope unless the changed scope is authorized by amendment to this Implementation Contract and approved as required by law. The Parties accept and agree that any change or variation to this Implementation Contract shall be null and void unless the Parties have mutually agreed to the terms and conditions of such change or variation and it has been authorized by amendment and approved as required by law.
- f. Officers and employees of the City are not authorized to offer or promise, nor is the City required to honor, any offered or promised additional funding in excess of the maximum amount of funding for which the contract is certified without certification of the additional amount by the Controller.
- g. The Controller is not authorized to make payments on any contract for which funds have not been certified as available in the budget or by supplemental appropriation. The Controller is not authorized to make payments on any contract for which funds have not been certified as available in the budget or by supplemental appropriation. The City's obligation hereunder shall not at any

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time exceed the amount certified by the Controller for the purpose and period stated in such certification.

h. This Section 14.1. controls against any and all other provisions of this Implementation Contract.

14.2. Payment.

- a. Invoice Format. Invoices furnished by Thales under this Implementation Contract shall be in the form attached as Appendix D (Sample Invoice) and must reference this Implementation Contract and the Construction Contract and the tasks or deliverables provided for which payment is sought. Prior to Assignment, the City shall make payments directly to Thales. Following Assignment, the City shall make payments to the Construction Contractor for all Work performed by Thales and shall have no obligation to pay Thales directly for said services, Proprietary Equipment or Software.
- Retention. Prior to Assignment, the City shall withhold ten percent (10%) of b. amounts due under each invoice for payment in the same manner as the City retains funds due the Construction Contractor, as provided in the General Provisions, Section 9.09 of the Construction Contract and as authorized by San Francisco Administrative Code section 6..22.J. Following Assignment, the Construction Contractor shall withhold ten percent (10%) of amounts due under each progress payment. As provided in San Francisco Administrative Code section 6..22.J, when Thales has completed fifty percent (50%) of the Work under this Implementation Contract, the Construction Contractor shall release fifty percent (50%) of funds held in retention to Thales, but shall withhold the remainder until the ATCS has passed the Reliability Demonstration Test ("RDT") and the SFMTA has issued Final Acceptance of the Work as provided under the Construction Contract, General Provisions, Section 1.01A.46, in accordance with in accordance with San Francisco Administrative Code section 6.22(K).

14.3. Submitting False Claims; Monetary Penalties. Pursuant to San Francisco Administrative Code §21.35, any Thales, subcontractor or consultant who submits a false claim shall be liable to the City for the statutory penalties set forth in that section. The text of Section 21.35, along with the entire San Francisco Administrative Code is available on the web at

http://www.municode.com/Library/clientCodePage.aspx?clientID=4201. A Thales, subcontractor or consultant will be deemed to have submitted a false claim to the City if Thales, subcontractor or consultant: (a) knowingly presents or causes to be presented to an officer or employee of the City a false claim or request for payment or approval; (b) knowingly makes, uses, or causes to be made or used a false record or statement to get a false claim paid or approved by the City; (c) conspires to defraud the City by getting a false claim allowed or paid by the City; (d) knowingly makes, uses, or causes to be made or used a false record or statement to conceal, avoid, or decrease an obligation to pay or transmit money or property to the City; or (e) is a beneficiary of an inadvertent submission of a false claim to the City, subsequently discovers the falsity of the claim, and fails to disclose the false claim to the City within a reasonable time after discovery of the false claim.

14.4. Disallowance and Certification to Non-Disbarment.

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- a. If Thales claims or receives payment from City for a service, reimbursement for which is later disallowed by the State of California or United States Government, Thales shall promptly refund the disallowed amount to City upon City's request. At its option, City may offset the amount disallowed from any payment due or to become due to Thales under this Implementation Contract, but City shall provide Thales with no less than 30 Days notice prior to effecting such offset.
- b. By executing this Implementation Contract, Thales certifies that it is not suspended, debarred or otherwise excluded from participation in federal assistance programs. Thales acknowledges that this certification of eligibility to receive federal funds is a material term of this Implementation Contract.

14.5. Taxes.

- a. Prior to Assignment, payment of any taxes, customs duties, fees, levies or charges of any kind, including possessory interest taxes and California sales and use taxes (hereinafter collectively referred to as "Taxes") levied upon or as a result of this Implementation Contract, or the services, Software or Proprietary Equipment delivered pursuant hereto, shall be the obligation of Thales. Following Assignment, payment of any taxes, customs duties, fees, levies or charges of any kind, including possessory interest taxes and California sales and use taxes (hereinafter collectively referred to as "Taxes") levied upon or as a result of this Implementation Contract, or the services, Software or Proprietary Equipment delivered pursuant hereto, shall be the obligation of Software or Proprietary Equipment delivered pursuant hereto, shall be the obligation of the Construction Contractor. Thales shall provide such information as may be reasonably requested by the City to enable the City to comply with any tax reporting requirements imposed by applicable law.
- b. Thales recognizes and understands that this Implementation Contract may create a "possessory interest" for property tax purposes. Generally, such a possessory interest is not created unless the Implementation Contract entitles Thales to possession, occupancy, or use of City property for private gain. If such a possessory interest is created, then the following shall apply:

(1) Thales, on behalf of itself and any permitted successors and assigns, recognizes and understands that Thales, and any permitted successors and assigns, may be subject to real property tax assessments on the possessory interest;

(2) Thales, on behalf of itself and any permitted successors and assigns, recognizes and understands that the creation, extension, renewal, or assignment of this Implementation Contract may result in a "change in ownership" for purposes of real property taxes, and therefore may result in a revaluation of any possessory interest created by this Implementation Contract. Thales accordingly agrees on behalf of itself and its permitted successors and assigns to report on behalf of the City to the County Assessor the information required by Revenue and Taxation Code section 480.5, as amended from time to time, and any successor provision.

(3) Thales, on behalf of itself and any permitted successors and assigns, recognizes and understands that other events also may cause a change of ownership of the possessory interest and result in the revaluation of the

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possessory interest. (see, e.g., Rev. & Tax. Code section 64, as amended from time to time). Thales accordingly agrees on behalf of itself and its permitted successors and assigns to report any change in ownership to the County Assessor, the State Board of Equalization or other public agency as required by law.

(4) Thales further agrees to provide such other information as may be requested by the City to enable the City to comply with any reporting requirements for possessory interests that are imposed by applicable law.

14.6. Payment Does Not Imply Acceptance of Work or Effect Waiver. The granting of any payment by City, or the receipt thereof by Thales, shall in no way lessen the liability of Thales to replace Work, Software, or Proprietary Equipment provided by Thales that does not meet the requirements of this Implementation Contract, although the nonconforming character of such Work, Software or Proprietary Equipment may not have been apparent or detected at the time such payment was made. Proprietary Equipment, Software, materials, components, or services that do not conform to the requirements of this Implementation Contract may be rejected by City prior to Substantial Completion or as provided in the Warranty provisions of Section 10 herein and in such case(s) Thales shall without delay replace/reperform or otherwise make such Work conform to the applicable requirements of this Implementation Contract.

14.7. Thales Personnel.

- a. Services under this Implementation Contract shall be performed by competent personnel under the supervision of and in the employment of Thales, its Affiliates or its approved subcontractors. Thales will comply with City's reasonable requests regarding assignment and reassignment of its personnel, but Thales shall be solely responsible for the supervision of its personnel, including those assigned at City's request. Thales shall commit adequate resources to perform the services and provide the Proprietary Equipment and Software described in this Implementation Contract within the Central Subway Project schedule.
- b. Thales shall not assign to other projects or otherwise remove from performing the Work under this Implementation Contract those persons identified as Key Personnel in Thales's Proposal, without the express written permission of the Engineer such consent not to be unreasonably withheld. If a person who is identified as Key Personnel leaves Thales's employment or becomes unavailable due to circumstances beyond Thales's control, Thales shall immediately provide notice to the Construction Contractor and to the SFMTA and shall within 15 Days of said notice, propose qualified replacement personnel for the Engineer's review and approval. Persons replacing Key Personnel must have equivalent experience and expertise as the Key Personnel they replace.
- c. Thales shall through the Engineer seek the SFMTA's prior approval if it wishes to reassign to another project any person identified in its Proposal as Key Personnel. The SFMTA shall not unreasonably deny such request, as long as such reassignment does not delay, cause a loss or reduction in productivity, or otherwise impair the Work.

14.8. Independent Contractor; Payment of Employment Taxes and Other Expenses.

- Independent Contractor. Thales and/or any agent or employee of Thales a. shall be deemed at all times to be an independent contractor and is wholly responsible for the manner in which it performs the services and work under this Implementation Contract. Thales or any agent or employee of Thales shall not have employee status with City and shall not be entitled to participate in any plans, arrangements, or distributions by City pertaining to or in connection with any retirement, health or other benefits that City may offer its employees. Thales and/or any agent or employee of Thales is liable for the acts and omissions of itself, its employees and its agents. Thales shall be responsible for all obligations and payments, whether imposed by federal, state or local law, including, but not limited to, FICA, income tax withholdings, unemployment compensation, insurance, and other similar responsibilities related to Thales' performing services and work, or any agent or employee of Thales providing same. Nothing in this Implementation Contract shall be construed as creating an employment or agency relationship between City and Thales or any agent or employee of Thales. Any terms in this Implementation Contract referring to direction from City shall be construed as providing for direction as to policy and the result of Thales' work only, and not as to the means by which such a result is obtained. City does not retain the right to control the means or the method by which Thales performs work under this Implementation Contract. Any terms in this Implementation Contract referring to direction from City shall be construed as providing for direction as to policy and the result of Thales' services only, and not as to the means or methods by which such a result is obtained. Thales shall control the means or the method by which Thales performs services under this Implementation Contract.
- b. Payment of Employment Taxes and Other Expenses. Should City, in its discretion, or a relevant taxing authority such as the Internal Revenue Service or the State Employment Development Division, or both, determine that Thales or any employee of Thales is an employee for purposes of collection of any employment taxes, the amounts payable under this Implementation Contract shall be reduced by amounts equal to both the employee and employer portions of the tax due (and offsetting any credits for amounts already paid by Thales which can be applied against this liability). City shall then forward those amounts to the relevant taxing authority.
- c. **Remittal**. Should a relevant taxing authority determine a liability for past services performed by any employee of Thales for City, upon notification of such fact by City, Thales shall promptly remit such amount due or arrange with City to have the amount due withheld from future payments to Thales under this Implementation Contract (offsetting any amounts already paid by Thales which can be applied as a credit against such liability).
- d. Limited Employment Status. A determination of employment status related to tax status shall be solely for the purposes of the particular tax in question, and for all other purposes of this Implementation Contract, Thales and any of its employees shall not be considered (an) employee(s) of City. Notwithstanding the foregoing, should any court, arbitrator, or administrative authority determine that Thales is an employee for any other purpose, then Thales agrees to a reduction in City's financial liability so that City's total

expenses under this Implementation Contract are not greater than they would have been had the court, arbitrator, or administrative authority determined that Thales was not an employee.

14.9. Default; Remedies; Right to Injunctive Relief.

a. **Events of Default.** Each of the following shall constitute an event of default ("Event of Default") under this Implementation Contract:

(1) Either Party, where applicable, fails or refuses to perform or observe any term, covenant or condition contained in any of the following Sections of this Implementation Contract and such failure or refusal materially affects the performance of the Implementation Contract:

- a. Article 4 Compensation
- b. Article 8 Insurance
- c. Article 11 Software and ATCS Documentation License
- d. Section 12.1 Proprietary or Confidential Information
- e. Section 14.3 Submitting False Claims; Monetary Penalties
- Section 14.6 Payment Does Not Imply Acceptance of Work or Effect Waiver
- g. Section 14.16 Assignment by Thales
- h. Section 14.20 MacBride Principles Northern Ireland
- i. Section 14.40 Compliance with Laws

(2) Either Party, where applicable, fails or refuses to perform or observe any other material term, covenant or condition contained in this Implementation Contract, and such default continues for a period of thirty (30) Days after written notice thereof from the other Party.

(3) Thales fails or refuses to perform or observe any term, covenant or condition contained in any of the following Sections of this Implementation Contract:

- a. Article 6 Assignment of this Implementation Contract to the Construction Contractor
- b. Article 8 Insurance
- c. Section 12.1 Proprietary or Confidential Information
- d. Section 12.2 Security Sensitive Information
- e. Section 14.3 Submitting False Claims; Monetary Penalties
- f. Section 14.5 Taxes
- g. Section 14.22 Compliance with Americans with Disabilities Act
- h. Section 14.30 Resource Conservation
- i. Section 14.40 Compliance with Laws

(4) Thales (a) admits in writing that it is not paying its debts as they become due, (b) files, or consents by answer or otherwise to the filing against it of a petition for relief or reorganization or arrangement or any other petition in bankruptcy or for liquidation or to take advantage of any bankruptcy, insolvency or other debtors' relief law of any jurisdiction, (c) makes an assignment for the benefit of its creditors, (d) consents to the appointment of a custodian, receiver, trustee or other officer with similar powers of Thales or of any substantial part of Thales' property or (e) takes action for the purpose of any of the foregoing.

(5) A court or government authority enters an order (a) appointing a custodian, receiver, trustee or other officer with similar powers with respect to Thales or with respect to any substantial part of Thales' property, (b) constituting an order for relief or approving a petition for relief or reorganization or arrangement or any other petition in bankruptcy or for liquidation or to take advantage of any bankruptcy, insolvency or other debtors' relief law of any jurisdiction or (c) ordering the dissolution, winding-up or liquidation of Thales.

b. Remedies.

(1) All remedies provided for in this Implementation Contract may be exercised individually or in combination with any other remedy available hereunder or under applicable laws, rules and regulations. The exercise of any remedy shall not preclude or in any way be deemed to waive any other remedy. Nothing in this Implementation Contract shall be construed to restrict or prevent a Party from applying or obtaining injunctive relief before any competent court under any competent jurisdiction, in case of effective or threatened breach or infringement in respect of Confidential Information or intellectual property rights.

(2) On and after any Event of Default, City shall have the right to exercise its legal and equitable remedies, including, without limitation, the right to terminate this Implementation Contract or to seek specific performance of all or any part of this Implementation Contract. In addition, City shall have the right (but no obligation) to cure (or cause to be cured) on behalf of Thales any Event of Default; Thales shall pay to City on demand all costs and expenses incurred by City in effecting such cure, with interest thereon from the date of incurrence at the maximum rate then permitted by law.

(3) The City shall have the right to seek its remedies directly against Thales under this Implementation Contract prior to and following Assignment. Thales agrees that should a court of competent jurisdiction determine that there is insufficient privacy between the City and Thales such that the City is precluded from seeking its remedies directly against Thales under this Implementation Contract, then the City shall have the right to seek those same remedies against Thales as a third party beneficiary of the Construction Contract.

14.10. Termination for Cause. Subsequent to Assignment of this Implementation Contract, termination of this Implementation Contract shall be governed by the relevant provisions of the Construction Contract (See General Provisions, Section 14.01). Prior to Assignment, a Party may terminate this Implementation Contract for cause with written notification to the other Party upon occurrence of the following events:

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- a. If the other Party shall commit any material breach of its obligations under this Implementation Contract and fails to take action to remedy such breach within thirty (30) Days from the date of receipt of the notifying Party's written notice to the Party in default, such notice specifying the nature of the breach.
- b. In case of any action or proceeding against the other Party relating to insolvency, bankruptcy, receivership or relief towards creditors, dissolution or winding-up, which are not discharged or in which assets are otherwise not available for completion of the Work within sixty (60) Days therefrom.

14.11. Termination for Convenience.

a. Prior to Assignment, the City may terminate this Implementation Contract at any time during the Term hereof, for convenience and without cause by giving Thales written notice of termination, which shall specify the date on which termination shall become effective. Upon any termination for convenience, Thales shall commence and perform, with diligence, all actions necessary on the part of Thales to effect the termination of the Implementation Contract on the date of termination specified in said notice and to minimize the liability of Thales and City to third parties as a result of termination. Such actions shall include, without limitation:

(1) Halting the performance of all services and other work under this Implementation Contract on the date(s) and in the manner specified by City.

(2) Not placing any further orders or subcontracts for materials, services, Proprietary Equipment or Software other items.

(3) Terminating all existing orders and subcontracts.

(4) Completing performance of any services or work that City designates to be completed prior to the date of termination specified by City.

(5) Taking such action as may be necessary, or as the City may direct, for the protection and preservation of any property related to this Implementation Contract which is in the possession of Thales and in which City has or may acquire an interest.

b. Within thirty (30) days after the specified termination date, Thales shall submit to the SFMTA an invoice, which shall set forth each of the following as a separate line item and the SFMTA shall pay to Thales within thirty (30) days of the date of such invoice or delivery of the materials listed below, as applicable, whichever is later:

(1) The unpaid balance of the price of Proprietary Equipment and Software delivered and services performed up to the date of giving notice of termination that conform to requirements and specifications of this Implementation Contract; and

(2) The unpaid balance of the Proprietary Equipment and Software in manufacture on the date of giving notice of termination or, if less, the costs of modifying the same for reuse or resale; and at City's option, be delivered to City; and

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(3) The unpaid portion of the price of Proprietary Equipment and Software manufactured or purchased from third parties prior to the date of the notice of termination, but not yet delivered on the date of giving notice of termination (which Proprietary Equipment and Software shall, at City's option, be delivered to the City);

(4) Costs and expenses resulting from any legally unavoidable commitments due or to become due in respect of sub-contracts and orders entered into and obligations incurred prior to the date of notice of termination, including demobilization costs and similar expenses, and if termination for convenience is at the City's election, an amount of ten per cent (10%) on such costs and expenses; and

(5) Thales's demobilization costs associated with such termination by the City.

- c. City's payment obligations under this Section shall survive termination of this Implementation Contract.
- d. In no event shall City be liable for costs incurred by Thales or any of its subcontractors after the termination date specified by City, except for those costs specifically enumerated and described in the immediately preceding Paragraph (b).
- e. Subsequent to Assignment, the City may require the Construction Contractor to terminate this Implementation Contract for convenience as provided in the Construction Contract, General Provisions, Section 14.03. In such event, Thales shall submit for documentation of its costs to the Construction Contractor (which shall forward them to the Engineer) in the same manner as provided in Section 41.11.b, above, for the City's review and payment in accordance with the requirements of this Implementation Contract.

14.12. Conflict of Interest. Through its execution of this Implementation Contract, Thales acknowledges that it is familiar with the provision of Section 15.103 of the City's Charter, Article III, Chapter 2 of City's Campaign and Governmental Conduct Code, and Section 87100 et seq. and Section 1090 et seq. of the Government Code of the State of California, and certifies that it does not know of any facts which constitutes a violation of said provisions and agrees that it will immediately notify the City if it becomes aware of any such fact during the Term of this Implementation Contract.

14.13. Notices to the Parties. Notices. All notices, consents, directions, approvals, instructions, requests and other communications to Thales and/or to the SFMTA regarding the interpretation application, suspension, termination breach or other provision of Implementation Contract shall be in writing, shall be addressed to the respective persons and addresses set forth below. All notices to the Construction Contract or shall be addressed to the person and address identified in the Construction Contract to receive notices on behalf of the Construction Contractor. All notices shall be (a) deposited in the U.S. mail, first class, certified with return receipt requested and with appropriate postage, (b) hand delivered or sent via facsimile or email PDF (to the facsimile number and/or email address provided below). All communications sent in accordance with this Section shall become effective on the date of actual receipt or as provided in the California

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Civil Code, whichever is provides the shorter notice period. From time to time SFMTA, Thales, or the Construction Contractor may designate a new address for purposes of this Section by notice to the SFMTA, Thales and the Construction Contractor. Unless otherwise indicated elsewhere in this Implementation Contract, all formal written notices sent by the Parties shall be signed by an authorized representative of the sending Party, or by facsimile immediately confirmed in writing. All notices under this Section of the Implementation Contract shall be considered as validly served if mailed in the form of pre-paid registered letter, return receipt requested, and shall be addressed as follows:

To City:

Municipal Transportation Agency 1 South Van Ness Avenue, 3rd floor San Francisco, CA 94102 Fax No. 415-701-4300 Attention: John Funghi, Program Manager Central Subway Project E-mail: john.funghi@SFMTA.org

with a copy to:

Municipal Transportation Agency 1 South Van Ness Avenue, 3rd floor San Francisco, CA 94102 Fax No. 415-701-4300 Attention: Shahnam Farhangi Capital Projects and Construction E-mail: shahnam.farhangi@sfmta.com

To Thales:

SFMTA Account Manager Thales Transport & Security, Inc. 5700 Corporate Drive, Suite 750 Pittsburgh, PA 15237

with a copy to:

Thales Transport & Security, Inc. Attn: Legal & Contracts 317 Madison Avenue, Suite 1600 New York, NY 10017

This Section shall only apply to formal legal notices between the Parties, not to the Parties' communications made in the course of performing the Work.

Any notice of default must be sent by registered mail.

14.14. Delivery, Title and Risk of Loss in Shipping and Storage.

a. Thales shall bear all risk of loss of Proprietary Equipment, including loss during shipping to a storage facility (as provided in Section 4.8.c), transport to the Site, and other times in which Thales has control of said Proprietary Equipment. Thales shall bear all risk of loss of Software, including loss during shipping and installation, until the work under the Construction Contract is completed and accepted by the City Thales shall for its full replacement value insure the

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Proprietary Equipment against loss or damage occurring while Thales has possession and/or control of the Proprietary Equipment.

- b. Thales shall bear all risk of loss of Software, including loss during shipping, transport, integration and installation, until the work under the Construction Contract is completed and accepted by the City. Except as specifically provided in Appendix B to this Implementation Contract, payment for Software shall not be due until the Software or approved portion thereof has been installed and incorporated into the ATCS.
- c. Title to the Work performed under this Implementation Contract shall vest in the SFMTA upon payment by SFMTA to the Construction Contractor or to Thales, as applicable.
- d. Title to any Software, Documentation and other confidential information or data delivered to the City under this Implementation Contract shall remain vested solely in Thales or its licensors.

14.15. Subcontracting. Thales is prohibited from subcontracting this Implementation Contract or any part of it unless City first approves such subcontracting in writing, which shall not unreasonably be withheld, provided that Thales will continue to be liable for the obligations of the subcontractor under this Implementation Contract. Neither Party shall, on the basis of this Implementation Contract, contract on behalf of or in the name of the other Party. An agreement made in violation of this provision shall confer no rights on any Party and shall be null and void. Notwithstanding all of the foregoing, Thales is hereby granted authority to subcontract all or any portions of the Work under this Implementation Contract to Thales Affiliates.

14.16. Assignment by Thales. The Work to be performed by Thales under this Implementation Contract is proprietary in nature (and therefore not available from any other vendor), and except as provided in this Implementation Contract, neither this Implementation Contract nor any duties or obligations hereunder may be assigned or delegated by Thales unless first approved by City by written instrument lawfully executed and approved. Notwithstanding the foregoing, Thales may assign any or all of its rights and obligations under this Implementation Contract to a Thales Affiliate with the prior consent of the SFMTA, such consent not to be unreasonably withheld.

14.17. Non-Waiver of Rights. The omission by either Party at any time to enforce any default or right reserved to it, or to require performance of any of the terms, covenants, or provisions hereof by the other Party at the time designated, shall not be a waiver of any such default or right to which the Party is entitled, nor shall it in any way affect the right of the Party to enforce such provisions thereafter.

14.18. Nondiscrimination; Penalties.

a. Thales Shall Not Discriminate. In the performance of this Implementation Contract, Thales agrees not to discriminate against any employee, City and County employee working with such Thales or subcontractor, applicant for employment with such Thales or subcontractor, or against any person seeking

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accommodations, advantages, facilities, privileges, services, or membership in all business, social, or other establishments or organizations, on the basis of the fact or perception of a person's race, color, creed, religion, national origin, ancestry, age, height, weight, sex, sexual orientation, gender identity, domestic partner status, marital status, disability or Acquired Immune Deficiency Syndrome or HIV status (AIDS/HIV status), or association with members of such protected classes, or in retaliation for opposition to discrimination against such classes.

- b. Subcontracts. Thales shall incorporate by reference in all subcontracts the provisions of §§12B.2(a), 12B.2(c)-(k), and 12C.3 of the San Francisco Administrative Code (copies of which are available from the SFMTA) and shall require all subcontractors to comply with such provisions. Thales' failure to comply with the obligations in this Section shall constitute a material breach of this Implementation Contract. Thales' failure to comply with the obligations of this Section shall constitute a material breach of this Section shall constitute a material breach of this Section shall constitute a material breach of this Section shall constitute a material breach.
- c. Nondiscrimination in Benefits. Thales does not as of the date of this Implementation Contract and will not during the term of this Implementation Contract, in any of its operations in San Francisco, on real property owned by San Francisco, or where work is being performed for the City elsewhere in the United States, discriminate in the provision of bereavement leave, family medical leave, health benefits, membership or membership discounts, moving expenses, pension and retirement benefits or travel benefits, as well as any benefits other than the benefits specified above, between employees with domestic partners and employees with spouses, and/or between the domestic partners and spouses of such employees, where the domestic partnership has been registered with a governmental entity pursuant to state or local law authorizing such registration, subject to the conditions set forth in §12B.2(b) of the San Francisco Administrative Code.
- d. Condition to Agreement. As a condition to this Implementation Contract, Thales shall execute the "Chapter 12B Declaration: Nondiscrimination in Contracts and Benefits" form (form HRC-12B-101) with supporting documentation and secure the approval of the form by the San Francisco Human Rights Commission.

14.19. Incorporation of Administrative Code Provisions by Reference. The provisions of Chapters 12B and 12C of the San Francisco Administrative Code are incorporated in this Section by reference and made a part of this Implementation Contract as though fully set forth herein. Thales shall comply fully with and be bound by all of the provisions that apply to this Implementation Contract under such Chapters, including but not limited to the remedies provided in such Chapters. Without limiting the foregoing, Thales understands that pursuant to sections 12B.2(h) and 12C.3(g) of the San Francisco Administrative Code, a penalty of \$50 for each person for each calendar day during which such person was discriminated against in violation of the provisions of this Implementation Contract may be assessed against Thales and/or deducted from any payments due Thales.

14.20. MacBride Principles - Northern Ireland. Pursuant to San Francisco. Administrative Code §12F.5, the City and County of San Francisco urges companies doing business in Northern Ireland to move towards resolving employment inequities, and encourages such companies to abide by the MacBride

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Principles. The City and County of San Francisco urges San Francisco companies to do business with corporations that abide by the MacBride Principles. By signing below, the person executing this Implementation Contract on behalf of Thales acknowledges and agrees that he or she has read and understood this Section.

14.21. Drug-Free Workplace Policy. Thales acknowledges that pursuant to the Federal Drug-Free Workplace Act of 1989, the unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited on City premises. Thales agrees that any violation of this prohibition by Thales, its employees, agents or assigns will be deemed a material breach of this Implementation Contract.

14.22. Compliance with Americans with Disabilities Act. Thales acknowledges that, pursuant to the Americans with Disabilities Act (ADA), programs, services and other activities provided by a public entity to the public, whether directly or through a Thales, must be accessible to the disabled public. Thales shall provide the Services specified in this Implementation Contract in a manner that complies with the ADA and any and all other applicable federal, state and local disability rights legislation. Thales agrees not to discriminate against disabled persons in the provision of services, benefits or activities provided under this Implementation Contract, and further agrees that any violation of this prohibition on the part of Thales, its employees, agents or assigns will constitute a material breach of this Implementation Contract.

14.23. Sunshine Ordinance. In accordance with San Francisco Administrative Code §67.24(e), contracts, Thales' bids, responses to solicitations and all other records of communications between City and persons or firms seeking contracts, shall be open to inspection immediately after a contract has been awarded. Nothing in this provision requires the disclosure of a private person or organization's net worth or other proprietary financial data submitted for qualification for a contract or other benefit until and unless that person or organization is awarded the contract or benefit. Information provided which is covered by this paragraph will be made available to the public upon request.

Limitations on Contributions. Through execution of this 14.24. Implementation Contract, Thales acknowledges that it is familiar with section 1.126 of the City's Campaign and Governmental Conduct Code, which prohibits any person who contracts with the City for the rendition of personal services, for the furnishing of any Proprietary Equipment, Software or other materials or supplies, for the sale or lease of any land or building, or for a grant, loan or loan guarantee, from making any campaign contribution to (1) an individual holding a City elective office if the contract must be approved by the individual, a board on which that individual serves, or the board of a state agency on which an appointee of that individual serves, (2) a candidate for the office held by such individual, or (3) a committee controlled by such individual, at any time from the commencement of negotiations for the contract until the later of either the termination of negotiations for such contract or six months after the date the contract is approved. Thales acknowledges that the foregoing restriction applies only if the contract or a combination or series of contracts approved by the same individual or board in a fiscal year have a total anticipated or actual value of \$50,000 or more. Thales further acknowledges that the prohibition on contributions applies to each prospective party to the contract; each member of Thales' board of directors; Thales' chairperson, chief executive officer, chief financial officer and chief operating officer; any person with an ownership interest of more

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than 20 percent in Thales; any subcontractor listed in the bid or contract; and any committee that is sponsored or controlled by Thales. Additionally, Thales acknowledges that Thales must inform each of the persons described in the preceding sentence of the prohibitions contained in Section 1.126. Thales further agrees to provide to City the names of each person, entity or committee described above.

14.25. Requiring Minimum Compensation for Covered Employees.

- a. Thales agrees to comply fully with and be bound by all of the provisions of the Minimum Compensation Ordinance (MCO), as set forth in San Francisco Administrative Code Chapter 12P (Chapter 12P), including the remedies provided, and implementing guidelines and rules. The provisions of Sections 12P.5 and 12P.5.1 of Chapter 12P are incorporated herein by reference and made a part of this Implementation Contract as though fully set forth. The text of the MCO is available on the web at www.sfgov.org/olse/mco. A partial listing of some of Thales' obligations under the MCO is set forth in this Section. Thales is required to comply with all the provisions of the MCO, irrespective of the listing of obligations in this Section.
- b. The MCO requires Thales to pay Thales' employees a minimum hourly gross compensation wage rate and to provide minimum compensated and uncompensated time off. The minimum wage rate may change from year to year and Thales is obligated to keep informed of the then-current requirements. Any subcontract entered into by Thales shall require the subcontractor to comply with the requirements of the MCO and shall contain contractual obligations substantially the same as those set forth in this Section. It is Thales' obligation to ensure that any subcontractors of any tier under this Implementation Contract comply with the requirements of the MCO. If any subcontractor under this Implementation Contract fails to comply, City may pursue any of the remedies set forth in this Section against Thales.
- c. Thales shall not take adverse action or otherwise discriminate against an employee or other person for the exercise or attempted exercise of rights under the MCO. Such actions, if taken within 90 days of the exercise or attempted exercise of such rights, will be rebuttably presumed to be retaliation prohibited by the MCO.
- d. Thales shall maintain employee and payroll records as required by the MCO. If Thales fails to do so, it shall be presumed that Thales paid no more than the minimum wage required under State law.
- e. The City is authorized to inspect Thales' job sites and conduct interviews with employees and conduct audits of Thales
- f. Thales' commitment to provide the Minimum Compensation is a Proprietary Equipment material element of the City's consideration for this Implementation Contract. The City in its sole discretion shall determine whether such a breach has occurred. The City and the public will suffer actual damage that will be impractical or extremely difficult to determine if Thales fails to comply with these requirements. Thales agrees that the sums set forth in Section 12P.6.1 of the MCO as liquidated damages are not a penalty, but are reasonable estimates of the loss that the City and the public will incur for Thales'

noncompliance. The procedures governing the assessment of liquidated damages shall be those set forth in Section 12P.6.2 of Chapter 12P.

g. Thales understands and agrees that if it fails to comply with the requirements of the MCO, the City shall have the right to pursue any rights or remedies available under Chapter 12P (including liquidated damages), under the terms of the contract, and under applicable law. If, within 30 days after receiving written notice of a breach of this Implementation Contract for violating the MCO, Thales fails to cure such breach or, if such breach cannot reasonably be cured within such period of 30 days, Thales fails to commence efforts to cure within such period, or thereafter fails diligently to pursue such cure to completion, the City shall have the right to pursue any rights or remedies available under applicable law, including those set forth in Section 12P.6(c) of Chapter 12P. Each of these remedies shall be exercisable individually or in combination with any other rights or remedies available to the City.

h. Thales represents and warrants that it is not an entity that was set up, or is being used, for the purpose of evading the intent of the MCO.

i. If Thales is exempt from the MCO when this Implementation Contract is executed because the cumulative amount of agreements with this department for the fiscal year is less than \$25,000, but Thales later enters into an agreement or agreements that cause Thales to exceed that amount in a fiscal year, Thales shall thereafter be required to comply with the MCO under this Implementation Contract. This obligation arises on the effective date of the agreement that causes the cumulative amount of agreements between Thales and this department to exceed \$25,000 in the fiscal year.

14.26. Requiring Health Benefits for Covered Employees. Thales agrees to comply fully with and be bound by all of the provisions of the Health Care Accountability Ordinance (HCAO), as set forth in San Francisco Administrative Code Chapter 12Q, including the remedies provided, and implementing regulations, as the same may be amended from time to time. The provisions of section 12Q.5.1 of Chapter 12Q are incorporated by reference and made a part of this Implementation Contract as though fully set forth herein. The text of the HCAO is available on the web at www.sfgov.org/olse. Capitalized terms used in this Section and not defined in this Implementation Contract shall have the meanings assigned to such terms in Chapter 12Q.

- a. For each Covered Employee, Thales shall provide the appropriate health benefit set forth in Section 12Q.3 of the HCAO. If Thales chooses to offer the health plan option, such health plan shall meet the minimum standards set forth by the San Francisco Health Commission.
- b. Notwithstanding the above, if Thales is a small business as defined in Section 12Q.3(e) of the HCAO, it shall have no obligation to comply with part (a) above.
- c. Thales' failure to comply with the HCAO shall constitute a material breach of this agreement. City shall notify Thales if such a breach has occurred. If, within 30 days after receiving City's written notice of a breach of this Implementation Contract for violating the HCAO, Thales fails to cure such breach or, if such breach cannot reasonably be cured within such period of 30 days, Thales fails to commence efforts to cure within such period, or thereafter fails diligently to

pursue such cure to completion, City shall have the right to pursue the remedies set forth in 12Q.5.1 and 12Q.5(f)(1-6). Each of these remedies shall be exercisable individually or in combination with any other rights or remedies available to City.

d. Any Subcontract entered into by Thales shall require the Subcontractor to comply with the requirements of the HCAO and shall contain contractual obligations substantially the same as those set forth in this Section 14.27. Thales shall notify City's Office of Implementation Contract Administration when it enters into such a Subcontract and shall certify to the Office of Implementation Contract Administration that it has notified the Subcontractor of the obligations under the HCAO and has imposed the requirements of the HCAO on Subcontractor through the Subcontract. Each Thales shall be responsible for its Subcontractors' compliance with this Chapter. If a Subcontractor fails to comply, the City may pursue the remedies set forth in this Section against Thales based on the Subcontractor's failure to comply, provided that City has first provided Thales with notice and an opportunity to obtain a cure of the violation.

e. Thales shall not discharge, reduce in compensation, or otherwise discriminate against any employee for notifying City with regard to Thales' noncompliance or anticipated noncompliance with the requirements of the HCAO, for opposing any practice proscribed by the HCAO, for participating in proceedings related to the HCAO, or for seeking to assert or enforce any rights under the HCAO by any lawful means.

- f. Thales represents and warrants that it is not an entity that was set up, or is being used, for the purpose of evading the intent of the HCAO.
- g. Thales shall maintain employee and payroll records in compliance with the California Labor Code and Industrial Welfare Commission orders, including the number of hours each employee has worked on the City Implementation Contract.
- h. Thales shall keep itself informed of the current requirements of the HCAO.
- i. Thales shall provide reports to the City in accordance with any reporting standards promulgated by the City under the HCAO, including reports on Subcontractors and Subtenants, as applicable.
- j. Thales shall provide City with access to records pertaining to compliance with HCAO after receiving a written request from City to do so and being provided at least ten business days to respond.
- k. Thales shall allow City to inspect Thales' job sites and have access to Thales' employees in order to monitor and determine compliance with HCAO.
- I. City may conduct random audits of Thales to ascertain its compliance with HCAO. Thales agrees to cooperate with City when it conducts such audits.
- m. If Thales is exempt from the HCAO when this Implementation Contract is executed because its amount is less than \$25,000 (\$50,000 for nonprofits), but Thales later enters into an agreement or agreements that cause Thales'

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aggregate amount of all agreements with City to reach \$75,000, all the agreements shall be thereafter subject to the HCAO. This obligation arises on the effective date of the agreement that causes the cumulative amount of agreements between Thales and the City to be equal to or greater than \$75,000 in the fiscal year.

14.27. Prohibition on Political Activity with City Funds. In accordance with San Francisco Administrative Code Chapter 12.G, Thales may not participate in, support, or attempt to influence any political campaign for a candidate or for a ballot measure (collectively, "Political Activity") in the performance of the Services provided under this Implementation Contract. Thales agrees to comply with San Francisco Administrative Code Chapter 12.G and any implementing rules and regulations promulgated by the City's Controller. The terms and provisions of Chapter 12.G are incorporated herein by this reference. In the event Thales violates the provisions of this Section, the City may, in addition to any other rights or remedies available hereunder, (i) terminate this Implementation Contract, and (ii) prohibit Thales from bidding on or receiving any new City contract for a period of two (2) years. The Controller will not consider Thales' use of profit as a violation of this Section.

14.28. English Required. All data, documents, descriptions, diagrams, instructions and correspondence shall be in the English language.

14.29. Protection of Private Information. Thales agrees to comply fully with and be bound by all of the provisions of Chapter 12M of the San Francisco Administrative Code (the "Protection of Private Information Ordinance"), including the remedies provided. The provisions of the Protection of Private Information Ordinance are incorporated herein by reference and made a part of this Implementation Contract as though fully set forth. Capitalized terms used in this Section and not defined in this Implementation Contract shall have the meanings assigned to such terms in the Protection of Private Information Ordinance. Consistent with the requirements of the Protection of Private Information Ordinance, Thales agrees to all of the following:

- a. Neither Thales nor any of its subcontractors shall disclose Private Information obtained from the City in the performance of this Implementation Contract to any other subcontractor, person, or other entity, unless one of the following is true:
 - (1) The disclosure is authorized by this Implementation Contract;

(2) Thales received advance written approval from the Contracting Department to disclose the information; or

- (3) The disclosure is required by law or judicial order.
- b. Any disclosure or use of Private Information authorized by this Implementation Contract shall be in accordance with any conditions or restrictions stated in this Implementation Contract. Any disclosure or use of Private Information authorized by a Contracting Department shall be in accordance with any conditions or restrictions stated in the approval.

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- c. Private Information means any information that: (1) could be used to identify an individual, including without limitation, name, address, social security number, medical information, financial information, date and location of birth, and names of relatives; or (2) the law forbids any person from disclosing.
- d. Any failure of Thales to comply with the Nondisclosure of Private Information Ordinance shall be a material breach of this Implementation Contract. In such an event, in addition to any other remedies available to it under equity or law, the City may terminate this Implementation Contract, debar Thales, or bring a false claim action against Thales.

14.30. Resource Conservation. Chapter 5 of the San Francisco Environment Code ("Resource Conservation") is incorporated herein by reference. Failure by Thales to comply with any of the applicable requirements of Chapter 5 will be deemed a material breach of contract.

14.31. Tropical Hardwood and Virgin Redwood Ban. Pursuant to §804(b) of the San Francisco Environment Code, the City and County of San Francisco urges its vendors and contractors not to import, purchase, obtain, or use for any purpose, any tropical hardwood, tropical hardwood wood product, virgin redwood or virgin redwood wood product.

14.32. Preservative-treated Wood Containing Arsenic. Thales may not purchase preservative-treated wood products containing arsenic in the performance of this Implementation Contract unless an exemption from the requirements of Chapter 13 of the San Francisco Environment Code is obtained from the Department of the Environment under Section 1304 of the Code. The term "preservative-treated wood containing arsenic" means wood treated with a preservative that contains arsenic, elemental arsenic, or an arsenic copper combination, including, but not limited to, chromate copper arsenate preservative, ammoniacal copper zinc arsenate preservative, or ammoniacal copper arsenate preservative. Thales may purchase preservative-treated wood products on the list of environmentally preferable alternatives prepared and adopted by the Department of the Environment. This provision does not preclude Thales from purchasing preservative-treated wood containing arsenic for saltwater immersion. The term "saltwater immersion" means a pressure-treated wood that is used for construction purposes or facilities that are partially or totally immersed in saltwater.

14.33. Food Service Waste Reduction Requirements. Thales agrees to comply fully with and be bound by all of the provisions of the Food Service Waste Reduction Ordinance, as set forth in San Francisco Environment Code Chapter 16, including the remedies provided, and implementing guidelines and rules. The provisions of Chapter 16 are incorporated herein by reference and made a part of this Implementation Contract as though fully set forth. By entering into this Implementation Contract, Thales agrees that if it breaches this provision, City will suffer actual damages that will be impractical or extremely difficult to determine; further, Thales agrees that the sum of one hundred dollars (\$100.00) liquidated damages for the first breach, two hundred dollars (\$200.00) liquidated damages for the second breach in the same year, and five hundred dollars (\$500.00) liquidated damages that City will incur based on the violation, established in light of the circumstances existing at the time this Implementation Contract was made. Such

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amounts shall not be considered a penalty, but rather agreed monetary damages sustained by City because of Thales' failure to comply with this provision.

14.34. Audit and Inspection of Records. Thales agrees to maintain and make available to the City, during regular business hours, accurate books and accounting records relating to its work under this Implementation Contract. Thales will permit City to audit, examine and make excerpts and transcripts from such books and records, and to make audits of all invoices, materials, payrolls, records or personnel and other data related to all other matters covered by this Implementation Contract, whether funded in whole or in part under this Implementation Contract. Thales shall maintain such data and records in an accessible location and condition for a period of not less than five years after final payment under this Implementation Contract or until after final audit has been resolved, whichever is later. The State of California or any federal agency having an interest in the subject matter of this Implementation Contract shall have the same rights conferred upon City by this Section.

14.35. Dispute Resolution.

- a. Prior to Assignment, for any dispute involving a question of fact, the aggrieved Party shall furnish the other Party with a notice of dispute within fifteen (15) Days of the determination of the dispute. The Party receiving a notice of dispute shall submit a written reply with fourteen (14) Days of delivery of the notice. The notice and response shall contain the following: (a) a statement of the Party's position and a summary of the arguments supporting that position, and (b) any evidence supporting the Party's position. Disputes arising in the performance of this Implementation Contract that are not resolved by negotiation between the Parties shall be decided by a competent court of jurisdiction in California. If agreed to by both Parties, disputes may be resolved by a mutually agreed to alternative dispute resolution process.
- b. Following Assignment, and throughout the term of the Construction Contract, disputes and claims shall be resolved as provided in the Construction Contract. Thales may invoke the partnering and dispute resolution process between it, SFMTA and the Construction Contractor, using the procedures for partnering set out in Article 16 of the Construction Contract, concerning any dispute regarding schedule, access to the Site, and payment. Tutor shall keep the SFMTA informed of any claim or dispute concerning or between it and Thales.

14.36. Modification of Agreement. This Implementation Contract may not be modified, nor may compliance with any of its terms be waived, except by as provided for herein by written instrument lawfully executed and approved. Any modification of this Implementation Contract must be signed by the City's Director of Transportation (chief executive of the SFMTA) and the President or Corporate Counsel of Thales.

14.37. Agreement Made in California; Venue. The laws of the State of California shall govern the formation, interpretation and performance of this Implementation Contract. Venue for all litigation relative to the formation, interpretation and performance of this Implementation Contract shall be in San Francisco.

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14.38. Construction of Agreement.

- a. All paragraph captions, headings and titles are for reference only and shall not be considered in construing this Implementation Contract.
- b. This Implementation Contract has been drafted through a cooperative effort of the City and Thales, and each has had the opportunity to have the Implementation Contract reviewed and revised by legal counsel of its choosing. The Parties acknowledge and agree that neither of them shall be considered the sole drafter. The Parties further agree that any presumption or rule of interpretation or construction of contracts that a document or ambiguities in a document shall be construed against the drafter of the document shall not apply to this Implementation Contract.
- c. In the event of any inconsistency between the provisions of any Appendix or other document incorporated by reference and the provisions of this document, the provisions of this document shall prevail.
- d. This Implementation Contract may be modified only as provided in Section 14.36.
- e. To the extent that any of the express provisions of this Implementation Contract conflict with the terms and conditions of the Construction Contract, the express provisions of this Implementation Contract shall govern the Work specifically described in this Implementation Contract (that is, the provision of proprietary services, Software and Proprietary Equipment). As to all other matters and issues not expressly addressed in this Implementation Contract, the terms and conditions of the Construction Contract and ATCS work that is not under this Implementation Contract, the terms and conditions of the Construction Contract shall govern.
- f. Work under this Implementation Contract shall be performed in accordance with the Project Schedule established under the Construction Contract and approved by the SFMTA. The ATCS Schedule shall be incorporated into the Project Schedule through a Contract Modification to the Construction Contract by which this Implementation Contract is assigned to the Construction Contractor. The SFMTA shall provide notice to Thales concerning any change to the Project Schedule that impacts the ATCS Schedule, and any conflicts shall be resolved by a conference of the SFMTA, Tutor and Thales.
- g. The City will require that the Construction Contractor provide Thales sufficient access to installed trackway, installed Proprietary Equipment and other wayside equipment so that Thales may commence meaningful testing of the ATCS no later than nine months prior to Substantial Completion.

14.39. Entire Agreement. This Implementation Contract, its Included Appendices, and any other documents incorporated by reference in this Implementation Contract constitute the entire agreement between the Parties as to the matters specifically set out herein. This Implementation Contract memorializes and sets out all intended rights and obligations and supersedes any and all previous agreements, correspondence, and understandings between them with respect to the subject matter hereof.

14.40. Compliance with Laws. Thales shall keep itself fully informed of the City's Charter, codes, ordinances and regulations of the City and of all state, and federal laws in any manner affecting the performance of this Implementation Contract, and must at all times comply with such local codes, ordinances, and regulations and all applicable laws as they may be amended from time to time.

14.41. Severability. Should the application of any provision of this Implementation Contract to any particular facts or circumstances be found by a court of competent jurisdiction to be invalid or unenforceable, then (a) the validity of other provisions of this Implementation Contract shall not be affected or impaired thereby, and (b) such provision shall be enforced to the maximum extent possible so as to effect the intent of the Parties and shall be reformed without further action by the Parties to the extent necessary to make such provision valid and enforceable.

14.42. Federal Agreement Requirements. Thales shall comply with all applicable federal contracting requirements, including but not limited to those set out in Appendix A to this Implementation Contract, which are incorporated by reference as if fully set out here. If there is any conflict between any federal contracting requirement and any provision of this Implementation Contract, the federal requirement shall prevail. The SFMTA has not adopted the contract requirements of the Federal Acquisition Regulations (FAR). As a department of the City and County of San Francisco, exercising its home rule authority granted by the California constitution, the SFMTA shall not be bound by any provision of the FAR.

14.43. Force Majeure.

- a. Neither Party shall by reason of Force Majeure, be entitled to terminate this Implementation Contract nor shall either Party have any claim for damages against the other for any non performance or delay under the Implementation Contract as a result of such Force Majeure. If the performance in whole or part of any obligation under this Implementation Contract is delayed by reason of any such event of Force Majeure for a period exceeding three (3) months, the Parties shall discuss and review in good faith the desirability and conditions of terminating this Implementation Contract.
- b. The prevented Party shall, as soon as it becomes aware of an event of Force Majeure, immediately inform the other Party of the nature and the beginning and the end of the Force Majeure circumstances preventing the performance of the Implementation Contract.

14.44. Surviving Rights and Duties. This Section 14.44 and the following Sections of this Implementation Contract shall survive Assignment, termination or expiration of this Implementation Contract: Article 7 (Indemnity), Article 11 (Software), Section 12.1 (Proprietary or Confidential Information), Section 12.2 (Security Sensitive Information), 14.3 (Submitting False Claims; Monetary Penalties), Section 14.29 (Protection of Private Information)14.34 (Audit and Inspection of Records), Section 14.37 (Agreement Made in California, Venue).

14.45. Signatures, Execution by Counterparts. This Implementation Contract may be executed in any number of counterparts all of which taken together shall constitute one and the same instrument, and either of the Parties may execute this Implementation Contract by signing any such counterpart. Delivery may be completed by the Party concerned transmitting to the other Party a facsimile or electronic copy of the counterpart signed by such Party. Any Party delivering any executed counterpart of this Implementation Contract as provided herein shall confirm execution by delivering by first class mail or courier an original of such executed counterpart to the other Party.

15. INCLUDED APPENDICES.

The Appendices listed below are hereby incorporated by reference into the Implementation Contract as if fully set out therein:

Appendix A. Appendix B.	Federal Contract Requirements Description of Proprietary Equipment, Software and Services to be Provided by Thales
Appendix C.	Pricing and Milestone Payment Schedule
Appendix D	Sample Invoice
Appendix E.	HRC Progress Payment Form
Appendix F	Mutual Nondisclosure Agreement (in re Confidential Information)
Appendix G	Software Escrow Agreement
Appendix H	ATCS Specifications
Appendix I	Project Schedule

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IN WITNESS WHEREOF, the Parties hereto have executed this Implementation Contract on the day first mentioned above.

San Francisco Municipal	Thales Transport & Security, Inc.
Transportation Agency	
APPROVED:	By signing this Implementation Contract, Thales certifies that it complies with the requirements of the Minimum Compensation
EDWARD D. REISKIN	Ordinance, which entitle Covered Employees to certain minimum hourly wages and compensated and uncompensated time off.
Director of Transportation	
Authorized by: SAN FRANCISCO MUNICIPAL TRANSPORTATION AGENCY BOARD OF	Thales has read and understood Section14.20, the City's statement urging companies doing business in Northern Ireland to move towards resolving employment inequities, encouraging compliance with the
DIRECTORS	MacBride Principles, and urging San
	Francisco companies to do business with
Attest:	corporations that abide by the MacBride
Adopted by Resolution No. <u>13-260</u> DECEMBER <u>3</u> , 2013	Principles.
R. Boomer	URBoh .
Secretary, San Francisco Municipal	JOHN BROHM C President &/CEO
Transportation Agency	Thales Transport & Security, Inc.
	5700 Corporate Drive, Suite 750,
	Pittsburgh, PA 15237
	Fax No. 412-366-8817
Approved as to Form:	City yanday pumbary
Dennis J. Herrera	City vendor number:
City Attorney	
By: Kolet Home 2-27.2014	
By: Kolet K. Stone	
Deputy City Attorney	

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APPENDIX A

FEDERAL CONTRACT REQUIREMENTS

1. COMPLIANCE AND PRECEDENCE

Thales shall comply with all applicable federal contracting requirements. This Implementation Contract is subject to contract requirements imposed on contracts funded by the Federal Transit Agency ("FTA"), including but not limited to the contract requirements set out in this Appendix A of this Implementation Contract. If there is any conflict between any federal contracting requirement and any provision of this Implementation Contract, the federal requirement shall prevail. The SFMTA has not adopted the contract requirements of the Federal Acquisition Regulations (FAR). As department of the City and County of San Francisco, exercising its home rule authority under the California constitution, the SFMTA shall not be bound by any provision of the FAR.

2. **DEFINITIONS**

The following terms shall have the meanings stated in this Section for purposes of the requirements of this Appendix A.

A. **Agreement** means the Implementation Contract for the provision of design review, installation and integration oversight, testing, and safety certification support for the Central Subway ATCS.

B. **Approved Project Budget** means the most recent statement, approved by the FTA, of the costs of the Project, the maximum amount of Federal assistance for which the City is currently eligible, the specific tasks (including specified contingencies) covered, and the estimated cost of each task.

C. **Contractor or Thales** means the individual or entity awarded a third party contract financed in whole or in part with Federal assistance originally derived from FTA.

D. **Cooperative Agreement** means the instrument by which FTA awards Federal assistance to a specific Recipient to support a particular Project or Program, and in which FTA takes an active role or retains substantial control.

E. **Federal Transit Administration (FTA)** is an operating administration of the U.S. DOT.

F. **FTA Directive** means any FTA circular, notice, order or guidance providing information about FTA's programs, application processing procedures, and Project management guidelines. In addition to FTA directives, certain U.S. DOT directives also apply to the Project.

G. **Grant Agreement** means the instrument by which FTA awards Federal assistance to a specific Recipient to support a particular Project, and in which FTA does not take an active role or retain substantial control, in accordance with 31 U.S.C. § 6304.

H. **Government** means the United States of America and any executive department or agency thereof.

I. **Project** means the task or set of tasks listed in the Approved Project Budget, and any modifications stated in the Conditions to the Grant Agreement or Cooperative Agreement applicable to the Project. In the case of the formula assistance program for urbanized areas, for elderly and persons with disabilities, and non-urbanized areas, 49 U.S.C. §§ 5307, 5310, and 5311, respectively, the term "Project" encompasses both "Program" and "each Project within the Program," as the context may require, to effectuate the requirements of the Grant Agreement or Cooperative Agreement.

J. **Recipient** means any entity that receives Federal assistance directly from FTA to accomplish the Project. The term "Recipient" includes each FTA "Grantee" as well as each FTA Recipient of a Cooperative Agreement. For the purpose of this Agreement, Recipient is the City.

K. **Secretary** means the U.S. DOT Secretary, including his or her duly authorized designee.

L. **Third Party Agreement** means a contract or purchase order awarded by the Recipient to a vendor or Thales, financed in whole or in part with Federal assistance awarded by FTA.

M. **Third Party Subcontract** means a subcontract at any tier entered into by Thales or third party subcontractor, financed in whole or in part with Federal assistance originally derived from FTA.

N. **U.S. DOT** is the acronym for the U.S. Department of Transportation, including its operating administrations.

3. BUY AMERICA

A. The Parties agree that the ATCS is a "System" as that term is defined in 49 CFR § 661.3 and an "End Product" subject to Buy America "Rolling Stock" requirements and certification under 49 CFR § 661.3, Appendix A, ¶ (1). The ATCS is also a "Component" as that term is defined under Buy America regulations at 49 CFR 661.11, Appendix C. The Parties agree that the elements of the ATCS that Thales shall supply under this Agreement will not comprise an entire ATCS; Thales will only supply proprietary Subcomponents of the ATCS, as the term Subcomponent is defined in 49 CFR § 661.11(c). Thales shall comply with all provisions of Buy America requirements applicable to Subcomponents for an ATCS.

B. The parties agree that the nonproprietary subcomponents of the ATCS will be procured and installed under the Construction Contract, and the Construction Contractor will install the ATCS as a System (Component) of the Central Subway at the project site (that is, in the stations and tunnels of the project), in accordance with the definition of installation provided in 49 CFR §661.11(r).

C. Thales certifies that the ATCS as finally installed under the Construction Contract shall meet the Buy America requirements applicable to train control equipment under the Rolling Stock requirements set out in 49 CFR § 661.3, Appendix A, ¶ (1) and 49 CFR § 661.11, Appendix C. To the extent applicable, Thales agrees to comply with all Buy America requirements for a System, an End Product and a Component, as provided in the authorities referenced in this Section 3. This Agreement and the Buy America certificate submitted by Thales as part of its Proposal shall serve as certification that Thales shall comply with the aforesaid Buy America requirements.

D. Thales shall be solely responsible for all costs related to its compliance with Buy America requirements. Failure to comply with these Buy America requirements shall constitute a material breach of this Agreement. See 49 CFR § 661.17. Thales acknowledges that contractors and vendors who intentionally or willfully fail to comply with the Buy America requirements may also be subject to debarment or suspension proceedings. 49 CFR § 661.18, 661.19.

4. NATIONAL ITS ARCHITECTURE POLICY.

If providing Intelligent Transportation Systems (ITS) property or services, Thales shall comply with the National ITS Architecture and standards to the extent required by 23 U.S.C. § 512, FTA Notice, "FTA National ITS Architecture Policy on Transit Projects," 66 FR 1455, et seq., January 8, 2001, and later published policies or implementing directives FTA may issue.

5. CARGO PREFERENCE REQUIREMENTS - Use of United States-Flag Vessels

Thales agrees: (a) to use privately owned United States-Flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to the underlying Agreement to the extent such vessels are available at fair and reasonable rates for United States-Flag commercial vessels; (b) to furnish within 20 Working Days following the date of loading for shipments originating within the United States or within 30 Working Days following the date of leading for shipments originating outside the United States, a legible copy of a rated, "on-board" commercial ocean bill-of-lading in English for each shipment of cargo described above to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590 and to the FTA recipient (through Thales in the case of a subcontractor's bill-of-lading.); and (c) to include these requirements in all subcontracts issued pursuant to this Agreement when the subcontract may involve the transport of equipment, material, or commodities by ocean vessel.

6. ENERGY CONSERVATION REQUIREMENTS

Thales agrees to comply with mandatory standards and policies relating to energy efficiency which are contained in any state energy conservation plan issued in compliance with the Energy Policy and Conservation Act.

7. ACCESS TO RECORDS AND REPORTS

a. Thales agrees to provide the City and County of San Francisco, the FTA Administrator, the Comptroller General of the United States or any of their authorized representatives access to any books, documents, papers and records of Thales which are directly pertinent to this Agreement for the purposes of making audits, examinations, excerpts and transcriptions. Thales also agrees, pursuant to 49 C.F.R. 633.17, to provide the FTA Administrator or his authorized representatives, including any PMO contractor, access to Thales' records and construction sites pertaining to a major capital project, defined at 49 U.S.C. 5302(a)1, which is receiving Federal financial assistance through the programs described at 49 U.S.C. 5307, 5309 or 5311.

b. In all contracts between the City and County of San Francisco and Thales for a capital project or improvement (defined at 49 U.S.C. 5302(a)1) entered into through other than competitive bidding, Thales shall make available records related to the to the Purchaser, the Secretary of Transportation and the Comptroller General or any authorized officer or employee of any of them for the purposes of conducting an audit and inspection.

c. Thales agrees to permit any of the foregoing parties to reproduce by any means whatsoever or to copy excerpts and transcriptions as reasonably needed.

d. Thales agrees to maintain all books, records, accounts and reports required under this Agreement for a period of not less than three years after the date of termination or expiration of this Agreement, except in the event of litigation or settlement of claims arising from the performance of this Agreement, in which case Thales agrees to maintain same until the City and County of San Francisco, the FTA Administrator, the Comptroller General, or any of their duly authorized representatives, have disposed of all such litigation, appeals, claims or exceptions related thereto. 49 CFR 18.36(i)(11).

8. CLEAN AIR REQUIREMENTS

a. Thales agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. §§ 7401 et seq. Thales agrees to report each violation to the City and County of San Francisco and understands and agrees that the City and County of San Francisco will, in turn, report each violation as required to assure notification to FTA and the appropriate EPA Regional Office.

b. Thales also agrees to include these requirements in each subcontract exceeding \$100,000 financed in whole or in part with Federal assistance provided by FTA.

9. CLEAN WATER REQUIREMENTS

a. Thales agrees to comply with all applicable standards, orders or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq. Thales agrees to report each violation to the City and understands and agrees that the City will, in turn, report each violation as required to assure notification to FTA and the appropriate EPA Regional Office.

b. Thales also agrees to include these requirements in each subcontract exceeding \$100,000 financed in whole or in part with Federal assistance provided by FTA.

10. RECYCLED PRODUCTS

Thales agrees to comply with all the requirements of Section 6002 of the Resource Conservation and Recovery Act (RCRA), as amended (42 U.S.C. 6962), including but not limited to the regulatory provisions of 40 CFR Part 247, and Executive Order 12873, as they apply to the procurement of the items designated in Subpart B of 40 CFR Part 247.

11. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

a. Overtime requirements - No Thales or subcontractor contracting for any part of the Agreement Work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of 40 hours in such workweek.

b. Violation; liability for unpaid wages; liquidated damages - In the event of any violation of the clause set forth in paragraph a. of this Section Thales and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such Thales and subcontractor shall be liable to the United States for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including

watchmen and guards, employed in violation of the clause set forth in paragraph a. of this section, in the sum of \$10 for each Day on which such individual was required or permitted to work in excess of the standard workweek of 40 hours without payment of the overtime wages required by the clause set forth in paragraph a. of this section.

c. Withholding for unpaid wages and liquidated damages - The MTA shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by Thales or subcontractor under any such contract or any other Federal contract with the same prime Thales, or any other federally-assisted contract subject to the Agreement Work Hours and Safety Standards Act, which is held by the same prime Thales, such sums as may be determined to be necessary to satisfy any liabilities of such Thales or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph b. of this section.

d. Subcontracts - Thales or subcontractor shall insert in any subcontracts the clauses set forth in paragraphs a. through d. of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime Thales shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs a. through d. of this section.

12. NO GOVERNMENT OBLIGATION TO THALES OR THIRD PARTIES

a. The City and Thales acknowledge and agree that, notwithstanding any concurrence by the Federal Government in or approval of the solicitation or award of the underlying contract, absent the express written consent by the Federal Government, the Federal Government is not a party to this Agreement and shall not be subject to any obligations or liabilities to the City, Thales, or any other party (whether or not a party to that contract) pertaining to any matter resulting from the underlying contract.

b. Thales agrees to include the above clause in each subcontract financed in whole or in part with Federal assistance provided by FTA. It is further agreed that the clause shall not be modified, except to identify the subcontractor who will be subject to its provisions.

13. PROGRAM FRAUD AND FALSE OR FRAUDULENT STATEMENTS AND RELATED ACTS

a. Thales acknowledges that the provisions of the Program Fraud Civil Remedies Act of 1986, as amended, 31 U.S.C. §§ 3801 et seq. and U.S. DOT regulations, "Program Fraud Civil Remedies," 49 C.F.R. Part 31, apply to its actions pertaining to this Project. Upon execution of this Agreement, Thales certifies or affirms the truthfulness and accuracy of any statement it has made, it makes, it may make, or causes to be made, pertaining to this Agreement or the FTA-assisted project for which this Agreement work is being performed. In addition to other penalties that may be applicable, Thales further acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification, the Federal Government reserves the right to impose the penalties of the Program Fraud Civil Remedies Act of 1986 on Thales to the extent the Federal Government deems appropriate.

b. Thales also acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification to the Federal Government under a contract connected with a project that is financed in whole or in part with Federal assistance originally awarded by FTA under the authority of 49 U.S.C. § 5307, the Government

reserves the right to impose the penalties of 18 U.S.C. § 1001 and 49 U.S.C. § 5307(n)(1) on Thales, to the extent the Federal Government deems appropriate.

14. Thales agrees to include the above two clauses in each subcontract financed in whole or in part with Federal assistance provided by FTA. It is further agreed that the clauses shall not be modified, except to identify the subcontractor who will be subject to the provisions.

15.

16. CIVIL RIGHTS REQUIREMENTS

a. Nondiscrimination - In accordance with Title VI of the Civil Rights Act, as amended, 42 U.S.C. § 2000d, section 303 of the Age Discrimination Act of 1975, as amended, 42 U.S.C. § 6102, section 202 of the Americans with Disabilities Act of 1990, 41 U.S.C. § 12132, and Federal transit law at 49 U.S.C. § 5332, Thales agrees that it will not discriminate against any employee or applicant for employment because of race, color, creed, national origin, sex, age, or disability. In addition, Thales agrees to comply with applicable Federal implementing regulations and other implementing requirements FTA may issue.

b. Equal Employment Opportunity - The following equal employment opportunity requirements apply to this Agreement:

(1) Race, Color, Creed, National Origin, Sex - In accordance with Title VII of the Civil Rights Act, as amended, 42 U.S.C. § 2000e, and Federal transit laws at 49 U.S.C. § 5332, Thales agrees to comply with all applicable equal employment opportunity requirements of U.S. Department of Labor (U.S. DOL) regulations, "Office of Federal Agreement Compliance Programs, Equal Employment Opportunity, Department of Labor," 41 C.F.R. Parts 60 et seq., (which implement Executive Order No. 11246, "Equal Employment Opportunity," as amended by Executive Order No. 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," 42 U.S.C. § 2000e note), and with any applicable Federal statutes, executive orders, regulations, and Federal policies that may in the future affect construction activities undertaken in the course of the Project.

(2) During the performance of this Agreement Thales agrees as follows:

a. Thales agrees to take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, creed, national origin, sex, or age. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. Thales agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

b. Thales will, in all solicitations or advertisements for employees placed by or on behalf of Thales, state that all qualified applicants will receive considerations for employment without regard to race, color, religion, sex, or national origin.

c. Thales will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers'

representatives of Thales' commitments under this Section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

d. Thales will furnish all information and reports required by Executive Order 11246 of September 24, 1965, as amended, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

e. In the event of Thales' noncompliance with the nondiscrimination clauses of this Agreement or with any of the said rules, regulations, or orders, this Agreement may be canceled, terminated, or suspended in whole or in part and Thales may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, as amended, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, as amended, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

f. Thales will include the provisions of subsections 1 and 2 in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, as amended, so that such provisions will be binding upon each subcontractor or vendor. Thales will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: Provided, however, that in the event a Thales becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency, Thales may request the City and the United States to enter into such litigation to protect the interests of the City and the United States.

(3) Age - In accordance with section 4 of the Age Discrimination in Employment Act of 1967, as amended, 29 U.S.C. § 623 and Federal transit law at 49 U.S.C. § 5332, Thales agrees to refrain from discrimination against present and prospective employees for reason of age. In addition, Thales agrees to comply with any implementing requirements FTA may issue.

(4) Disabilities - In accordance with section 102 of the Americans with Disabilities Act, as amended, 42 U.S.C. § 12112, Thales agrees that it will comply with the requirements of U.S. Equal Employment Opportunity Commission, "Regulations to Implement the Equal Employment Provisions of the Americans with Disabilities Act," 29 C.F.R. Part 1630, pertaining to employment of persons with disabilities. In addition, Thales agrees to comply with any implementing requirements FTA may issue.

c. Equal Opportunity Clauses

(1) As used in these specifications:

a. "Covered area" means the geographical area described in the solicitation from which this Agreement resulted;

b. "Director" means Director, Office of Federal Agreement Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;

c. "Employer identification number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.

d. "Minority" includes persons who are:

(2) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);

(3) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);

(4) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and

(5) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

d. Whenever Thales, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this Agreement resulted.

e. If Thales is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Thales must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Thales or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Thales or Subcontractors toward a goal in an approved Plan does not excuse any covered Thales' or Subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.

f. Thales shall implement the specific affirmative action standards provided in paragraphs 7.a through p of these specifications. The goals set forth in the solicitation from which this Agreement resulted are expressed as percentages of the total hours of employment and training of minority and female utilization Thales should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered Construction Contractors performing construction work in geographical areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any Office of Federal Agreement Compliance Programs office or from Federal procurement contracting officers. Thales is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.

Central Subway ATCS Implementation

g. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom Thales has a collective bargaining agreement, to refer either minorities or women, shall excuse Thales' obligations under these specifications, Executive Order 11246, as amended, or the regulations promulgated pursuant thereto.

h. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by Thales during the training period, and Thales must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

i. Thales shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of Thales' compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. Thales shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:

(1) Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which Thales' employees are assigned to work. Thales, where possible, will assign two or more women to each construction project. Thales shall specifically ensure that all foremen, superintendents, and other supervisory personnel assigned to the Work are aware of and carry out Thales' obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.

(2) Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when Thales or its unions have employment opportunities available, and maintain a record of the organizations' responses.

(3) Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to Thales by the union or, if referred, not employed by Thales, this shall be documented in the file with the reason therefore, along with whatever additional actions Thales may have taken.

(4) Provide immediate written notification to the Director when the union or unions with which Thales has a collective bargaining agreement has not referred to Thales a minority person or woman sent by Thales, or when Thales has other information that the union referral process has impeded Thales' efforts to meet its obligations.

(5) Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to Thales' employment needs, especially those programs funded or approved by the Department of Labor. Thales shall provide notice of these programs to the sources compiled under 7.b above.

(6) Disseminate Thales' EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting Thales in meeting its EEO obligations; by including it in any policy manual and collective

bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

(7) Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions, including specific review of these items with onsite supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of construction work at any the Site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

(8) Disseminate Thales' EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing Thales' EEO policy with other Thales and Subcontractors with whom Thales does or anticipates doing business.

(9) Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving Thales' recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, Thales shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.

(10) Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the Site and in other areas of a Thales' work force.

(11) Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.

(12) Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.

(13) Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and Thales' obligations under these specifications are being carried out.

(14) Ensure that all facilities and company activities are nonsegregated, except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

(15) Document and maintain a record of all solicitations of offers for subcontracts from minority and female Construction Contractors and suppliers, including circulation of solicitations to minority and female Thales associations and other business associations.

Central Subway ATCS Implementation

(16) Conduct a review, at least annually, of all supervisors' adherence to and performance under Thales' EEO policies and affirmative action obligations.

j. Thales are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (Paragraphs i(1) through i(16). The efforts of a Thales association, joint contractor -union, contractor-community, or other similar group of which Thales is a member and participant, may be asserted as fulfilling any one or more of its obligations under Paragraphs i(1) through i(16) of these Specifications provided that Thales actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in Thales' minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of Thales. The obligation to comply, however, is Thales' and failure of such a group to fulfill an obligation shall not be a defense for Thales' noncompliance.

k. A single goal for minorities and a separate single goal for women have been established. Thales, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, Thales may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though Thales has achieved its goals for women generally, Thales may be in violation of the Executive Order if a specific minority group of women is underutilized).

I. Thales shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.

m. Thales shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.

n. Thales shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Agreement Compliance Programs. Any Thales who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

o. Thales, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If Thales fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.

p. Thales shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, Thales shall not be required to maintain separate records.

q. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

17. DBE/SBE ASSURANCES.

Pursuant to 49 C.F.R. section 26.13, Thales is required to make the following assurance in its agreement with SFMTA and to include this assurance in any agreements it makes with subcontractors in the performance of this contract:

Thales or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. Thales shall carry out applicable requirements of 49 C.F.R. Part 26 in the award and administration of DOT-assisted contracts. Failure by Thales or subcontractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as SFMTA deems appropriate.

18. DRUG AND ALCOHOL TESTING

To the extent Contractor, its subcontractors or their employees perform a safetysensitive function under the Agreement, Contractor agrees to comply with, and assure compliance of its subcontractors, and their employees, with 49 U.S.C. § 5331, and FTA regulations, "Prevention of Alcohol Misuse and Prohibited Drug Use in Transit Operations," 49 CFR Part 655.

19. SUBSTANCE ABUSE

Thales shall comply with U.S. DOT regulations, "Drug Free Workplace Requirements (Grants)" 49 C.F.R. Part 29, Subpart F, and other applicable U.S. DOT and FTA regulations and guidance pertaining to substance abuse (drugs and alcohol) that may be promulgated.

20. FALSE OR FRAUDULENT STATEMENTS AND CLAIMS

21. DEBARMENT AND SUSPENSION

See Certification Regarding Debarment, Suspension, and Other Responsibility Matters.

22. FLY AMERICA

Thales agrees to comply with 49 U.S.C. 40118 (the "Fly America" Act) in accordance with the General Services Administration's regulations at 41 CFR Part 301-10, which provide that recipients and subrecipients of Federal funds and their Thales are required to use U.S. Flag air carriers for U.S. Government-financed international air travel and transportation of their personal effects or property, to the extent such service is available, unless travel by foreign air carrier is a matter of necessity, as defined by the Fly America Act. Thales shall submit, if a foreign air carrier was used, an appropriate certification or memorandum adequately explaining why service by a U.S. flag air carrier was not available or why it was necessary to use a foreign air carrier and shall, in any event, provide a certificate of compliance with the Fly America requirements. Thales agrees to include the requirements of this Section in all subcontracts that may involve international air transportation.

23. INCORPORATION OF FEDERAL TRANSIT ADMINISTRATION (FTA) TERMS

Central Subway ATCS Implementation

The preceding provisions include, in part, certain Standard Terms and Conditions required by DOT, whether or not expressly set forth in the preceding Agreement provisions. All contractual provisions required by DOT, as set forth in FTA Circular 4220.1F, are hereby incorporated by reference. Anything to the contrary herein notwithstanding, all FTA-mandated terms shall be deemed to control in the event of a conflict with other provisions contained in this Agreement. Thales shall not perform any act, fail to perform any act, or refuse to comply with any (name of grantee) requests which would cause (name of grantee) to be in violation of the FTA terms and conditions.

24. FEDERAL CHANGES

Thales shall at all times comply with all applicable FTA regulations, policies, procedures and directives, including without limitation those listed directly or by reference in the Master Agreement between the City and FTA, as they may be amended or promulgated from time to time during the term of this Agreement. Thales' failure to so comply shall constitute a material breach of this Agreement.

25. FEDERAL RULES OF ACQUISITION NOT APPLICABLE

The City has not adopted the Federal Rules of Acquisition (FRA). Except as specifically stated in this Agreement: (1) this Agreement is not subject to the FRA; and, (2) for purposes of interpreting or enforcing the Agreement, the City shall not be bound by the FRA or any court decision interpreting the FRA.

26. TEXTING WHILE DRIVING; DISTRACTED DRIVING

Consistent with Executive Order 13513 "Federal Leadership on Reducing Text Messaging While Driving", Oct. 1, 2009 (available at http://edocket.access.gpo.gov/2009/E9-24203.htm) and DOT Order 3902.10 "Text Messaging While Driving", Dec. 30, 2009, SFMTA encourages Thales to promote policies and initiatives for employees and other personnel that adopt and promote safety policies to decrease crashes by distracted drivers, including policies to ban text messaging while driving, and to include this provision in each third party subcontract involving the Work.

27. SEAT BELT USE

In compliance with Executive Order 13043 "Increasing Seat Belt Use in the United States", April 16, 1997 23 U.S.C. Section 402 note, the SFMTA encourages Thales to adopt and promote on-the-job seat belt use policies and programs for its employees and other personnel that operate company owned, rented, or personally operated vehicles, and to include this provision in each third party subcontract involving the Work.

APPENDIX B

SCOPE OF WORK:

PROPRIETARY EQUIPMENT, SOFTWARE AND SERVICES TO BE PROVIDED BY THALES

BILL OF QUANTITIES FOR ATCS SUBSYSTEM COMPONENTS

Item/Location	Current Thales Part Number (Subject to Change)	Quantity
Central Control		
Workstation (Simple)	300-3-01909	2
Workstation rack mountable rails	500-3-00652	1
Workstation Mouse	300-3-01875	3
Workstation Keyboard	300-3-01725	3
Workstations Monitors - 22" LCD (2 per Supervisor, Dispatcher w/s and 1 for all others)	300-3-01771	5
PBA - ADAPTER PRO/1000 GT 1-PT DSKTP CAT5	401-3-00334	3
PBA-GRAPHIC PCIE 124MB DUAL HEAD LP	401-3-00548	3
ADAPTER-DISPLAY PORT TO DVI-D 20CM	300-3-01871	3
DCS		
DCS Rack	500-3-0474	1*
Data CTF - Central	3CU10065EHAA	1*
Data CTF - Equipment Room	3CU10065DZAA	3*
CTF Mounting Hardware	3CU10031AHAA	4*
Feed In Devices (FID) - 2 channel	3CU10078CWAA	3*
Entry FID (EFID)	3CU10078BGAA	1*
Remote Loop Boxes	3CU10014AFAA	16*
Optical Modem V1 29dB	3CU20217ADAA	13*
Optical Modem V2 29dB	3CU20217ABAA	13*

Central Subway ATCS Implementation

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VCC:		
CAT 5 Patch panel	300-3-01264	3
MM Patch Panel	500-3-00477	3
SM Patch Panel	500-3-00475	3
Storage tray	500-3-00652	3
VCC Rack	3CU10360ABAA	2*
VCC I/O Rack	3CU70702ACAA	2*
VCC DT-13 LOOP/ 3 STC	3CU70703ABAA	2*
VCC CO Terminal PC	300-3-01690	3*
CL/RS232 Converter	300-3-00402	4*
RACK ASSEMBLY - INTERFACE	3CU10023EHAA	1*
RACK ASSEMBLY - VCC DCS INTERFACE	3CU70705AAAA	1*
STC and PDIU:		
3rd Gen Snooper Rack	3CU10187BJAAHAZZA	1*
PSU Rack	3CU10028WFAA	1*
Relay Rack	3CU 10028 WFAA	1*
FEC based STC Relay Rack		1*
ACE Power Rack		1*
CTF Mounting Hardware	3CU10031AHAA	3*
STC ID Plug	300-2-00172-xxx	2*
STC Interconnect Cable	3CU30500AAAA	1*
Axle Counter Equipment		
Rail Contact 30K 8,0m cable (subst)	3JA84527AAAA	22*
Pedestal, variable 400mm	7HA02204BAAA	22*
Electronic Unit Zp30K, 120V	7HA02212AABA	22*

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Subrack ACE 3-32 without filter (2v3)	3CR01897AAAA	1*
Processor EPCM, 128 MB CF	3JA80325AABA	3*
DC/DC Converter ACE 60V	3CR31041AAAA	5*
Serial I/O for ACE 3 x	3CR01858PFAC	22*
Covering Plate (Blank Board)	3CR014390014	4*
Power Data Coupline Unit (PDCU)	3CR01892BAAB	22*
DC/DC Converter 48V-60V/100V (for DP)	9754343224	8*
Test Unit incl. Dummy Wheel	1998228201	1*
WAYSIDE Special Tools and Test		
FID Extender Card	5822201380	1*
SNOOPER	TBD	1*
Sniffer (w/s + software)	TBD	1*

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SOFTWARE

1. Intersig (STC)	
2. ACE Database	
3. LCP Database	
4. LCP Application	
5. ACE	
6. SPR (CPU-A)	
7. PST (CPU-B)	
8. VOBC Software	
9. Schedule Regulation Subsystem (SRS)	1
10. Graphical User Interface and Line Overview (GUI)	
11. Platform Data Distribution (PDD)	
12. Track-Vehicle Simulator (TVS)	
13. Snooper	
14. VCC Software	
15. SMC Pre-processors	
16. TAS Platform	
17.SMC Software	

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HARDWARE

1. ATCS Workstations	
2. Axle Counters/EAK	
3. Axle Counter Evaluators (ACE)	
4. ATCS Cable Termination Frame (CTF)	
5. ATCS Rack to Rack Cables in Train Control Room	
6. ATCS Card Files and Extenders	
7. ATCS Chassis Cabinets	
8. Entry Feed-In Device (EFID)	
9. Feed-In Device (FID)	
10. ATCS Firmware (ROM, PROM, EPROM) for Furnished equipment	
11.Local System Management Center (LSMC)	
12. ATCS Operations Simulators	
13. ATCS Power Supplies - Rack mounted for furnished equipment	
14. ATCS Processors/Vital Processors/Relays	
15. ATCS Remote Loop Box (RLB)	
16.ATCS Loop Termination Box	
17.ATCS Racks	
18. Station Controller Subsystem	
19. ATCS Communication Controller	
20. System Management Center Hardware Upgrades	·••••
21. VCC Subsystem	
22.VCC Snooper	
23.VCC/CCOT	
24.ATCS Vital Relays	
25. Switch Control Electronics	

Central Subway ATCS Implementation

APPENDIX C

PRICING AND MILESTONE PAYMENT SCHEDULE

Milestone No.	Description	Components	Value	Sub-Value
<u>1</u>	Mobilization	NTP	\$495,774.32	\$495,774.32 \$495,774.32
2	Initial Submittals	Preliminary Project Schedule Review with Tutor Configuration Management Plan Training Program Plan	\$778,482.05	\$129,747.01 \$129,747.01 \$518,988.04 \$778,482.05
3	Preliminary Design	System Assurance Plan Documentation on how to calculate MTBHE Product Data for all equipment and software Description of Theory of Operation Preliminary Design Review Package	\$2,075,952.14	\$643,942.97 \$129,747.01 \$247,411.00 \$129,747.01 \$925,104.16 \$2,075,952.14
4	Intermediate Design	AZLM Test results Interface Control Document Safety Related Design Assumptions Description of Safety Assurance Concepts and Program Description of overall ATCS System Standards used to design Vital ATCS Software Preliminary Hazard Analysis Intermediate Design Review Package	\$3,113,928.22	\$896,983.22 \$643,942.97 \$129,747.01 \$247,411.00 \$129,747.01 \$129,747.01 \$518,988.04 \$417,361.97 \$3,113,928.22
5	Final Design	Recommended Spare Parts List Testing and Startup Program Plan Standards used to design Class 1 Hardware Fault Tree Analysis ATCS Reliability Analysis Maintainability Analysis Schematic Drawing of ATCS Room Equipment Room Layout Drawings Final Design Review Package	\$2,594,940.18	\$129,747.01 \$247,411.00 \$129,747.01 \$518,988.04 \$247,761.81 \$247,761.81 \$518,988.04 \$403,795.76 \$150,739.71 \$2,594,940.18

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6	Factory		\$2,366,270.67	\$000 (70.0)
	Acceptance	Release BOM for Procurements Test Lab		\$389,173.35
	Tests	Available Complete Flow Diagrams,		\$235,629.52
	Complete	Functional Block Diagrams		\$494,274.32
		FMECA of Class 1 Hardware		\$494,274.32
	1	FAT Test Results		\$752,919.12
			•	\$2,366,270.67
7	Hardware		\$2,912,783.08	
	Procurement	Rack Layout Drawings Equipment		\$235,629.52
		Arrangement Drawings Power Distribution		\$394,271.74
		Drawings and power Calculations Wire		\$394,274.32
		Routing Diagrams Equipment Plans and		\$389,173.39
		Installation Drawings Circuit Plans for all I/O		\$494,274.32
		functions Schematics of new Hardware		\$235,629.52
		Components Shop Drawings for all Equipment		\$298,271.23
		Foundation, Grounding Arrangements		\$235,629.52
				\$235,629.52
				\$2,912,783.08
8	Deliver		\$3,425,424.00	
Ŭ	Hardware	Deliver Hardware	<i>+-,,</i>	
	ria ana a			\$3,425,424.00
				ಟ್ರಿಸುತ್ತು ನೈಗಳುತ್ತಾರೆ. ಪ್ರೇಕೆ ಬ್ಯಾಪಿ ಪ್ರವಿಧಾನವನ್, ಪ್ರಾಜನ್ ಕ
9	Installation,		\$2,580,867.84	
	Software	Installation Procedures Preventative		\$448,444.11
	Testing	Maintenance Plan Guideway Correspondence		\$212,066.57
		Testing PICO Test results Operating and		\$270,072.62
		Maintenance Manuals ATCS Reliability		\$448,444.11
		Demonstration Test Plan ATCS Maintainability		\$212,066.57
		Demonstration Test Plan Book of Plans for		\$132,066.57
		each Train Control Room		\$157,195.20
		Book of Plans for each Central Control		\$350,256.05
		Equipment Room		\$350,256.05
				\$2,580,867.84
10	Start up and		\$2,220,059.05	
	Testing	as-built drawings for train control rooms		\$681,203.55
	U U	as-built		\$681,203.55
		drawings for central control equipment room		\$857,651.96
		SAT test reports		\$2,220,059.05
11	Substantial		\$1,235,685.80	
	Completion	System integration Tests Completed	Ψ1,200,000.00	\$494,274.32
	Completion	System Integration test reports - Draft		\$494,274.32
1				· ·
		SEMTA training completed	I	5/4/ 13/ 16 I
		SFMTA training completed		\$247,137.16 \$1.235.685.80
		SFMTA training completed		\$247,137.16 \$1,235,685.80
		SFMTA training completed		

12	Final		\$988,548.64	
	Acceptance	Final system integration test reports		\$494,274.32
		Successful completion of reliability demonstration test plan		\$494,274.32
		, , ,		\$988,548.64
Totals			\$24,788,716.00	\$24,788,716.00

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APPENDIX D

SAMPLE INVOICE

Thates Transport & Security, Inc. 700 Corporate Drive, Suite 750	•	Telephone: 1-416-742-38	900	for and and Phases	
ittsburgh på 15237 Isa		Fax Number: 1-416-742-	\$977	iyment Due Date: Page:	
Bill To 1	0000139	95	Ship To	100001399	5
CITY AND COUNTY OF MUNICIPAL RAILWAY 1 SOUTH VAN NESS 3RD FLOOR SAN FRANCISCO CA 9 USA Attention: Accounts Paya	4103-1267		CITY AND COUNTY C MUNICIPAL RAILWAY 1 SOUTH VAN NESS 3RD FLOOR SAN FRANCISCO CA USA Attention: Receiving		XISCO
Payment Terms: Due 30 Print Date: 20 AUG Purchase Order: DPP111 Sales Order: 366203 Order Date: 19 JUL	2012 0000924A	oice date	Sold To: 100 incoTerms: FO Complete Delivery: YE	в	
LN item Number	Rev Ship	ped Backorder UM	List Price Discount	Net Price	Ext. Price
1 SERVICE-ENGINEERING	ń	WA INA EA		436,436,00	435,436.00
	(July 1, 2012	eering Agreement Extension June 30, 2013)	Line Total		436 436 00
	Currency: Tax Date:	20 AUG 2012	Line Yotal		436,436.00
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			Total	· 4	436,436.00
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	THE REPORT OF STREET, ST				
ABA#021(100021 ACCT#	400-336995 SWIFT# CH Check remit to: Thates 1	ran Chase Bank New York, NY ASUS33 ACCT NAME: Thates Fina Transport & Security, Inc. a 750, Fillsburgh, PA 15237	nce Corporation	

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APPENDIX E

HRC PROGRESS PAYMENT FORM

Central Subway ATCS Service Implementation

APPENDIX F

MUTUAL NONDISCLOSURE AGREEMENT (IN RE CONFIDENTIAL INFORMATION)

Central Subway ATCS Service Implementation

APPENDIX G

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SOFTWARE ESCROW AGREEMENT

Central Subway ATCS Service Implementation

APPENDIX H

ATCS SPECIFICATIONS

ATCS CONSTRUCTION AND FUNCTION SPECIFICATIONS

The Proprietary Equipment and Software that Thales shall provide to the Central Subway Project under this Implementation Contract shall comply with the following Specifications:

a. ATCS General Requirements (Construction Contract Specifications Section 34 42 23)

b. ATCS Functional Requirements (Construction Contract Specifications Section 34 42 25)

c. ATCS Safety (Construction Contract Specifications Section 34 42 27)

d. ATCS System Assurance (Construction Contract Specifications Section 34 42 31)

e. ATCS Room Equipment (Construction Contract Specifications Section 34 42 35)

f. ATCS Wayside Equipment (Construction Contract Specifications Section 34 42 37)

g. ATCS Central Equipment (Construction Contract Specifications Section 34 42 39)

h. ATCS Testing (Construction Contract Specifications Section 34 42 41)

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Connecting people. Connecting communities.

Contract 1266-2: Advanced Train Control System

Requests for SF Board of Supervisors authorize SFMTA to enter into an agreement with Thales Transport & Security, Inv. for design and implementation of the Advanced Train Control System (ATCS):

- Contract will allow for interoperability and consistency with existing Muni Metro ATCS
- Provide ATCS design, software configuration, installation inspection, safety certification and system testing services
- Contract 1300 (Tutor Perini) will construct the infrastructure and support elements designed by Thales Contract 1266-2
- Thales will inspect, configure and test the ATCS and assist in obtaining safety certification from California Public Utilities Commission (CPUC)

SEMTA

Municipal Transportation Agency

central
 subway

Connecting people. Connecting communities.

Authorizing the SFMTA to execute Advance Train Control System Contract 1266-2

Resolution authorizing SFMTA to execute the Advanced Train Control System (ATCS):

- ATCS is a safety critical system that provides automatic control of train speed, braking and headway
- Improvement to reliability and operations safety
- Contract 1266-2: sole source contract for Advance Train Control System for proprietary software and systems integration assistance, testing, safety certification support, and warranty
- Total amount for Contract 1266-2 shall not exceed \$21,363,292

GISLATION RECEIVED CHECKL

File Number (if applicable)

- ►►► Legislation Clerk
- Legislation Pending in Committee (AMENDED)
- Legislation for Board Agenda (AMENDED)

Legislation for Introduction (NEW)

- **Image: Committee Clerk**
- ►►► Dep Clerk, Legislative Div

Supervisor, Mayor, and Departmental Submittals

Grant Ordinance

Date 5-5-14

- [] Legislation: Original and 2 hard copies and 1 electronic copy in word format
- [] Signature: Department Head, Mayor or the Mayor's designee, plus the Controller
- [] Back-up materials: 1 full set (see below) and 1 electronic copy in pdf format*
 - [] Cover letter (original and 1 hard copy)
 - [] Grant budget/application
 - [] Grant information form, including disability checklist
 - [] Letter of Intent or grant award letter from funding agency
 - [] Contract, Leases/Agreements (if applicable)
 - [] Ethics Form 126 (if applicable)*Word format

[] E-Copy of legislation/back-up materials: Sent to BOS.Legislation@sfgov.org

Ordinance

- [] Legislation: Original and 2 hard copies and 1 electronic copy in word format
- City Attorney (For Settlement of Lawsuits City Attorney, Department [] Signature: Head, Controller, Commission Secretary)
- [] Back-up materials: 1 hard copy (see below) and 1 electronic copy in pdf format
 - [] Cover letter (original and 1 hard copy)
 - [] Settlement Report/Agreement (for settlements)
 - [] Other (Explain)

[] E-Copy of legislation/back-up materials: Sent to BOS.Legislation@sfgov.org

Grant Resolution

- [] Legislation: Original and 2 hard copies and 1 electronic copy in word format
- [] Signature: Department Head, Mayor or the Mayor's designee, plus the Controller
- [] Back-up materials: 1 hard copy (see below) and 1 electronic copy in pdf format*
 - [] Cover letter (original and 1 hard copy)
 - [] Grant budget/application
 - [] Grant information form, including disability checklist
 - [] Letter of Intent or grant award letter from funding agency
 - [] Contract, Leases/Agreements (if applicable)
 - [] Ethics Form 126 (if applicable)*Word format

[] E-Copy of legislation/back-up materials: Sent to BOS.Legislation@sfgov.org

Resolution

- Legislation: Original and 2 hard copies and 1 electronic copy in word format
- [~] Signature: None (Required for Settlement of Claims - City Attorney, Department Head, Controller, Commission Secretary)
- **Fack-up materials:** 1 full set (see below) and 1 electronic copy in pdf format [Y Cover letter (original and 1 hard copy)
 - [] Settlement Report/Agreement (for settlements)
 - √1 Other (Explain)

[J E-Copy of legislation/back-up materials: Sent to BOS.Legislation@sfgov.org

415.701 4693 Name and Telephone Numbe

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Clerk's Office/Forms/Legislation Received Checklist (11/2013) for more help go to: sfbos.org/about the board/general/legislative process handbook

FORM SFEC-126: NOTIFICATION OF CONTRACT APPROVAL

(S.F. Campaign and Go	vernmental Conduct Code § 1.126)
City Elective Officer Information (Please print clearly	
Name of City elective officer(s):	City elective office(s) held:
Members, SF Board of Supervisors	Members, SF Board of Supervisors
Contractor Information (Please print clearly.)	
Name of contractor: Thales Transport & Security, Inc.	
Tunio of contractor. Thates Transport & Socarty, inc.	
financial officer and chief operating officer; (3) any perso any subcontractor listed in the bid or contract; and (5) any additional pages as necessary.	oard of directors; (2) the contractor's chief executive officer, chief n who has an ownership of 20 percent or more in the contractor; (4) y political committee sponsored or controlled by the contractor. Use
 <u>Board of Directors</u>. Alan Pellegrini, John Brohm and D <u>Officers</u>. John Brohm (President & CEO), Duncan Lew Jason Lauffer (Director, Business Development) <u>Ownership</u>. No person owns more than 20% of the Cort <u>Sub-Contractors</u>. There are no sub-contractors listed in <u>Political Committee</u>. The Contractor does not control o 	vis (COO), Debra Lhota (CFO, Treasurer), Alex Woods (Secretary) and intractor.
Contractor address: 5700 Corporate Drive, Suite 750, Pitts	sburgh, PA 15237
Date that contract was approved:	Amount of contract: 1266-1: \$3,425,424 1266-2: \$21,363,292
	ntract for the design, review, provision of software, testing services the implementation of an Advanced Train Control System for the hase 2)
This contract was approved by (check applicable):	
\Box the City elective officer(s) identified on this form	
\mathbf{x} a board on which the City elective officer(s) serves _	San Francisco Board of Supervisors
□ the board of a state agency (Health Authority, Housir Board, Parking Authority, Redevelopment Agency Con Development Authority) on which an appointee of the	
Print Name of Board	
Filer Information (Please print clearly.)	
Name of filer:	Contact telephone number:
Address:	E-mail:
· · · · · · · · · · · · · · · · · · ·	
Signature of City Elective Officer (if submitted by City elect	tive officer) Date Signed
Signature of Board Secretary or Clerk (if submitted by Board	d Secretary or Clerk) Date Signed