

Invitation For Bids (Federal)

Solicitation IFB No.: FQ18050

CABLE SUPPLY

IDIQ

INDEFINITE DELIVERY / INDEFINITE QUANTITY

BIDS DUE: 2PM Wed. March 21, 2018 BIDS DUE: 2PM Wed. March 28, 2018

FUNDING: Federal DBE: 1% Date: March 5, 2018

Margarita Rodriguez Contract Administrator Office of Procurement and Materials <u>mdrodriguez@wmata.com</u>

AMENDMENT #2

Rev. 12/17

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LETTER TO BIDDERS WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY (WMATA)

Date: March 5, 2018

SUBJECT: Invitation for Bids (IFB) FQ18050 Cable Supply – IDIQ

Dear Sir/Madam:

The Washington Metropolitan Area Transit Authority (WMATA) seeks to award an Indefinite Delivery/Indefinite Quantity (IDIQ) contract for the supply of various cable types. Refer to the Unit Price Schedule for complete list.

The cable is required to systematically repair or replace traction power systems, automatic train control (ATC) systems, communication systems and/or electrical systems. To this end, the Authority is issuing this Invitation for Bid ("IFB") to solicit bids from qualified firms who can satisfy the requirements of the accompanying contract documents.

Period of Performance: Shall be (5) five years; each year as set forth below.

I st Year	Base Year	Days – Per Year	2018
	Year 2	365 Days	2019
	Year 3	366 Days	2020 (Leap Year)
	Year 4	365 Days	2021
	Year 5	365 Days	2022

Disadvantaged Business Enterprises (DBE)

The solicitation includes a DBE goal of $\underline{1}$ % if the bid price is \$150,000.

WMATA in compliance with 49 C.F.R, Part 26, as amended, implements positive affirmative action procedures to ensure that all Disadvantaged Business Enterprises have the maximum opportunity to participate in the performance of contracts and subcontracts financed, in whole or in part, with federal funds provided for this project. All bidders shall take all necessary and reasonable steps to ensure the DBE's have the maximum opportunity, bidders shall not discriminate on the basis of race, color, creed, age, disability, national origin or sex in the award and performance of DOT-assisted contracts.

It is a condition of the contract that all Bidders shall follow the DBE required procedures as set forth in the bid documents section **–APPENDIX B–** Disadvantaged Business Enterprise (DBE).

Information on the WMATA DBE program can be found at: <u>https://www.wmata.com/business/small-disadvantaged-business/index.cfm</u>

DBE Vendor Directory:

https://supplier.wmata.com/psp/supplier/SUPPLIER/ERP/c/WT_CL_SEP_MENU.WT_CL_VDR_DIR_CM_ P.GBL?Page=WT_CL_VDR_DIR_PG&Action=U_

Questions regarding WMATA's DBE program may be addressed to Ms. Sylvia Edwards, DBE and/or through the following email at <u>DBEHotline@wmata.com</u>.

Page 1 of 2

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Period of Performance: Shall be one (1) Base Year, and four (4) option years; each year as set forth below.

1 st Year	Base Year	Days – Per Year	2018
2 nd Year	Option Year 1	365 Days	2019
3 rd Year	Option Year 2	366 Days	رکر (Leap Year)
4 th Year	Option Year 3	365 Day	2
5 th Year	Option Year 4	3 - Trys	

Disadvantaged Business Enterprises

The solicitation includes a project of 1% in the bid price is \$150,000

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Bid Documents are available in pdf format can be downloaded free of charge as follows:

WMATA's website:

https://www.wmata.com/Business/procurement/solicitations/active-procurement-opportunities.cfm

WMATA's Project Management Software System (PROCORE):

Electronic bid submission "ONLY", no paper bids will be accepted.

Please send your request for a copy of the solicitation documents via electronic mail to the contract administrator as indicated below. Your request shall be completed in the following format:

- Solicitation: FQ18050 Cable Supply IDIQ
- Email (Email <u>"MUST</u>" be provided to be given access to "PROCORE").
- Your Name / Title / Contact information, address / telephone number(s).
- Company Name, address, telephone number, web-site address.

NOTE: You will be notified via return email.

If you have any technical, contractual, or administrative questions, please direct them to the following contract administrator:

Margarita Rodriguez, Contract Administrator Email: <u>mdRodriguez@wmata.com</u>

Bidders are cautioned not to take exceptions or qualify their bid! Bids must conform to the solicitation requirements. Questions are due no later than close of business, as indicted in the <u>schedule of activities (see next page)</u>. WMATA will provide written answers, by e-mail to all those who obtain the IFB and provided their email addresses. If applicable, amendment(s) are issued resulting from questions and answers, will be posted on WMATA's website and "PROCORE".

Basis of Award: Firm Fixed Unit Price (IDIQ), up to (5) five Awards

Contract(s) will be awarded to the responsible and responsive bidder(s) offering the lowest total price for each <u>category</u>, as indicted in the "Price Schedule Sheet".

Bidders must submit a bid on all line items within a category. Each category will have listed the calculated total amount, which will be the "Basis for Award".

<u>Quantities in price schedule sheet;</u> - are estimates only; actual quantities ordered may vary; NOTE: Unit pricing <u>"must"</u> be entered on each bid line item (per Category), in order to be eligible for award(s).

This project will be funded by multiple sources, including funding by the Federal Transit Administration (FTA). Bidders will have to comply with all Federal requirements, as set forth in the bid documents. Bids will be received and reviewed, for responsiveness to all of the required specifications. WMATA reserves the right to reject any bid that is not responsive to the solicitation or to reject all bids and cancel the solicitation.

WMATA reserves the right to reject any or all bids.

Sincerely,

Norie A. Calvert, Contracting Officer Office of Procurement and Materials

IFB No.: FQ18050 Cable Supply IDIQ

ADVERTISE	Mar. 05, 2018	2PM Eastern Time		
SOLICITATION				
Questions	Mar. 09, 2018	(Eastern Time)	Last day to Submit questions	
Pre-Bid Conference	[NOT APF	PLICABLE]	Request for information (RFI's) Questions forum will open until the Last day (as indicated above).	
BIDS DUE	Mar. 21, 2018 Mar. 28, 2018	2PM Eastern Time	 Solicitation, Offer & Award Form Price Schedule Amendment(s) (if applicable) Certification & Representation Applicable DBE forms 	
		BID OPENING	Immediately after.	
PRE-AWARD	Mar. 23, 2018 April 9, 2018	Pre-Award Evaluation Data (Form)	WMATA will notify Qualified bidder(s) based on evaluated bids criteria; (See "Basis for Award") to complete the Pre-Award Evaluation Data form.	
AWARD	April 6, 2018 April 16, 2018	Notification to All Bidders	Award Unsuccessful bidders	

SCHEDULE OF ACTIVITIES

Questions concerning this Request for the IFB may be directed to:

Margarita Rodriguez, CA Telephone: (202) 962-2456 / Email: mdRodriguez@wmata.com

BIDS SHALL BE TIMELY RECEIVED ELECTRONCIALLY THROUGH "PROCORE". <u>2:00 PM (LOCAL EASTERN TIME)</u> dates are indicated above.

BIDS WILL BE PUBLICALLY OPENED.

Attendance of the public bid opening "MUST" be present at least half-hour early before bids are due – to get through security, building location:

WMATA – JGB 600 Fifth Street, NW Washington, DC 20001

FAILURE TO SUBMIT ANY PORTION OF THESE REQUIREMENTS AS SPECIFIED IN THE BID DOCUMENTS MAY CAUSE YOUR BID TO BE CONSIDERED NONRESPONSIVE AND SUBSEQUENTLY REJECTED.

WMATA reserves the right (if deems such cancellation to be in its best interests) to cancel the Award of the contract before the complete execution of all required bid forms.

If cancellation of award; in no event shall WMATA be liable for any expenses, costs, attorney's fees, lost profits or damages of any kind resulting therefrom. The Bidder assumes the sole risk and responsibility for any expenses or costs incurred.

[WMATA] Date: December 1, 2017

INTRODUCTORY INFORMATION

SOLICITATION CERTIFICATIONS PAGE

FQ18050

Cable Supply IDIQ

APPROVED FOR RELEASE

Project Manager/Office Designee

2017 Date

al

Contracting Officer

Date

END OF SECTION

NOTICE TO BIDDERS IMPORTANT PLEASE READ CAREFULLY

To ensure submission of complete bids and to avoid irregularities that could result in a nonresponsive bid, please check your company's bid for each of the following common responsiveness problems:

- 1. Have you checked your company's bid? Are all items included and checked for math errors?
- 2. If amendments are included, has your company acknowledged and recorded the number of amendments on the bid envelope and bid form?
- 3. Has your company signed and submitted the Solicitation, Offer & Award page(s)?
- 4. Has your company properly completed and checked the appropriate box for each Certification and Representation? Have you included the Representations and Certifications with your company's bid?
- 5. Has your company completed and included the Pre- Award Data form?
- 6. Has your company complied with the Appendix B or B-1 requirement (if applicable)?
- 7. Has your company marked the bid envelope with solicitation number and addressed it to the Contract Administrator **Margarita Rodriguez**?
- 8. Has your company included copies of any required Certificate(s) of Insurance?
- **Note:** Contractor's pricing, if offered to other jurisdictions, will be the same regardless of quantities ordered. The Authority makes no representations regarding the quantities that may be ordered by any other jurisdictions.

NOTICE TO ALL VENDORS

Please be advised that all vendors and contractors who do business with the Washington Metropolitan Area Transit Authority (WMATA) must register in the WMATA Vendor Registration System. Registration is located at http://www.wmata.com

New Vendor Registration: https://www.wmata.com/business/procurement/vendor-resources.cfm

SUPPLIER PORTAL LOGIN
Supplier Portal Tips & User Guides
Follow these important tips when using our registration system:
Use the arrow keys on each page to navigate between pages; do not use your browser's "Back" button.
Use only the supported browsers Internet Explorer 9 and above or Chrome 24 and up.
Usernames and passwords are case sensitive; after 3 incorrect tries, the system will lock you out.
Login data expires if not used within 90 days.
New user registration
How to change temporary password
🔀 SEP certification registration and renewal
🔀 How to view Procurement opportunities and submit offers
Account management instructions for existing users
For currently registered vendors
 Forgot your user ID? Please contact CLM Help Desk (<u>CLM@wmata.com</u>)
 For all other issues, please contact the CLM Help Desk (CLM@wmata.com)

If you are a vendor or contractor and *HAVE* done business with WMATA in the past, please electronically request your company's User ID and Password at <u>http://www.wmata.com</u> *Forgot User Id/Password*.

Registered Vendor Benefits:

- Visibility to WMATA contract administrators and/or purchasing agents during the purchasing decision period;
- Visibility to other 17,500 registered vendors for possible business opportunities;
- Opportunity to update online, company information such as an e-mail address or contact person on-line;
- Ability to sign up for electronic payment option; and
- Ability to electronically reset user id and password.

Any questions regarding registration may be sent to <u>clm@wmata.com</u>.

Contract No.: FQ18050 SUPPLY AND SERVICE CONTRACT (IDIQ) Date: March 5, 2018					
washington metropolitan area transit authority solicitation, offer and award					
CONTRACT NO.	SOLICITATION NO.	DATE ISSUED	ADDRESS OFFER TO OFFICE OF PROCUREMENT		
IFB: FQ180503/5/2018Office of Procurement 600 Fifth Street NW Washington, DC 20001					
	SOLIC	ITATION			
Sealed offer of electronic bid submission through "PROCORE" for furnishing the supplies or services in the schedules will be received at Authority until <u>Wednesday 2:00 P.M.</u> Local time <u>March 21, 2018</u> <u>March 28, 2018</u> (Hour) (Date) If this is an advertised solicitation, offers will be publicly opened at that time. CAUTION – LATE OFFERS: See paragraph 6 of Solicitation Instructions.					
 All offers are subject to the following: 1. The Solicitation Instructions that are attached. 2. The Terms and Conditions that are attached. 3. The Price Schedule included herein and/or attached hereto. 4. Such other provisions, representations, certifications, and specifications, as are attached or incorporated herein by reference. 					
Bidder's e-mail: Bidder's phone number					
Bidder's e-mail:		Bidder's	phone number		

	SONEDOLL						
ITEM NO.	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	CATEGORIES (BASIS FOR AWARD TOTAL)		
					(A) \$		
	See – Price Schedule Sheet				(B) \$		
					(C) \$		
					(D) \$		
					(E) \$		

DUN & BRADSTREET ID NUMBER:

	BIDDER		
Name and Address (Street, city, county, state, and zip code)	Name and Title o	of Person Auth	orized to Sign Offer (Print or Type)
	Signature		Offer Date
Check if remittance is different from above — enter such address i AWARD (To I	be completed by T	he Authoi	rity)
ACCEPTANCE AND AWAR	D ARE HEREBY MADE FOR	R THE FOLLO	WING ITEM(S):
ITEM NO.	QUANTITY	UNIT	AWARD CATEGORY/CATEGORIES

ITEM NO.	QUANTITY	UNIT	AWARD CATEGORY/CATEGORIES
CABLE SUPPLY - IDIQ	See Price Schedule S	Sheet	
Indefinite Delivery / Indefinite Quantity	(Unit Prices – FP v		

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY AWARD DATE

PRICE SCHEDULE SHEET

FQ18050 CABLE SUPPLY

Price Schedule

COMPANY:

_	CATEGORY (A)							EAR	
<u>Item #</u>	DESCRIPTION	MFG. / Catalog# _ orEQUAL_	ESTIMATED QUANTITY	<u>UOM</u>	<u>רואט</u>	PRICE	E	XTENDED TOTAL	
	SHIELDED CABLE								
1	1000 KCMIL CLASS D (127) shielded	Section 16129	5,000	LF	\$	-	\$	-	
2	1000 KCMIL CLASS G (427) shielded	Section 16129	5,000	LF	\$	-	\$	-	
3	1500 KCMIL CLASS D (169) shielded	Section 16129	5,000	LF	\$	-	\$	-	
	NONSHIELDED CABLE								
4	500 KCMIL CLASS G (259) (Ropelay)	Section 32 42 49	10,000	LF	\$	-	\$	-	
5	1000 KCMIL CLASS D (127) Non-shielded	Section 16129	10,000	LF	\$	-	\$	-	
6	1000 KCMIL CLASS G (427) Non-shielded	Section 16129	30,000	LF	\$	-	\$	-	
7	1000 KCMIL CLASS G (427) (Ropelay)	Section 32 42 49	25,000	LF	\$	-	\$	-	
8	1500 KCMIL CLASS D (169) Non-shielded	Section 16129	5,000	LF	\$	-	\$	-	
9	1500 KCMIL CLASS G (427) Non-shielded	Section 16129	5,000	LF	\$	-	\$	-	BASES FOR AWARD
10	1500 KCMIL CLASS H (703) Non-shielded	Section 16129	5,000	LF	\$	-	\$	-	CATEGORY (A)
CA	TEGORY A "Traction Power"	(Line Items 1	l thru 10) TO	TAL:	-		\$		= <u>\$</u>

(Unit price "MUST" be entered on each line item)

	CATEGOR	RY (B)				BA	SE YEA	R
	SINGLE CONDUCTOR CABLE				UNI	PRICE	EXTEN	IDED TOTAL
11	14 AWG	Section 16128	5,000	LF	\$	-	\$	-
12	12 AWG	Section 16128	5,000	LF	\$	-	\$	-
13	10 AWG	Section 16128	5,000	LF	\$	-	\$	-
14	8 AWG	Section 16128	5,000	LF	\$	-	\$	-
15	6 AWG	Section 16128	5,000	LF	\$	-	\$	-
16	4 AWG	Section 16128	5,000	LF	\$	-	\$	-
17	3 AWG	Section 16128	5,000	LF	\$	-	\$	-
18	2 AWG	Section 16128	5,000	LF	\$	-	\$	-
19	1 AWG	Section 16128	5,000	LF	\$	-	\$	-
20	1/0 AWG	Section 16128	5,000	LF	\$	-	\$	-
21	2/0 AWG	Section 16128	5,000	LF	\$	-	\$	-
22	3/0 AWG	Section 16128	5,000	LF	\$	-	\$	-
23	4/0 AWG	Section 16128	5,000	LF	\$	-	\$	-
24	250 AWG	Section 16128	5,000	LF	\$	-	\$	-
25	300 AWG	Section 16128	5,000	LF	\$	-	\$	-
26	350 AWG	Section 16128	5,000	LF	\$	-	\$	-
27	400 AWG	Section 16128	5,000	LF	\$	-	\$	-
28	500 KCMIL	Section 16128	5,000	LF	\$	-	\$	-
29	600 KCMIL	Section 16128	5,000	LF	\$	-	\$	-
30	700 KCMIL	Section 16128	5,000	LF	\$	-	\$	-
31	800 KCMIL	Section 16128	5,000	LF	\$	-	\$	-
32	900 KCMIL	Section 16128	5,000	LF	\$	-	\$	-
CA	TEGORY B "Power Cables"	(Line Items 1	1 thru 32) T	OTAL:		\$	5	
	TEGORY B "Power Cables"	(Line Items 1	1 thru 32) T	OTAL:	-	4	i i i	it price "

(Unit price "MUST" be entered on each line item)

Prices on the Price Schedule Sheets submitted must include all associated costs, including but not limited to, delivery, freight, travel, markups, overhead, and profit. Price Escalation – The Unit Prices on Price Schedule Sheet shall be subject to two price escalation factors: Copper Prices and Non Copper Component Prices.

(See Special Provisions)

All installation components of technical specifications have been strike-through as installation of the cable is NOT IN CONTRACT (N.I.C).

FQ18050 CABLE SUPPLY

Price Schedule

	CATEGO	RY (C)						
<u>Item #</u>	DESCRIPTION	MFG. / Catalog# _ orEQUAL_	ESTIMATED QUANTITY	<u>UOM</u>	UNIT <u>PR</u>	RICE	EXTENDED <u>TOTAL</u>	
	MULTI-CONDUCTOR ALS CABLE							
33	14 AWG	Section 26 05 19	2,500	LF	\$	-	\$ -	
34	12 AWG	Section 26 05 19	2,500	LF	\$	-	\$-	
35	10 AWG	Section 26 05 19	2,500	LF	\$	-	\$-	
36	8 AWG	Section 26 05 19	2,500	LF	\$	-	\$-	
37	6 AWG	Section 26 05 19	2,500	LF	\$	-	\$-	
38	4 AWG	Section 26 05 19	2,500	LF	\$	-	\$-	
39	3 AWG	Section 26 05 19	2,500	LF	\$	-	\$-	
40	2 AWG	Section 26 05 19	2,500	LF	\$	-	\$-	
41	1 AWG	Section 26 05 19	2,500	LF	\$	-	\$ -	
42	1/0 AWG	Section 26 05 19	2,500	LF	\$	-	\$ -	
43	2/0 AWG	Section 26 05 19	2,500	LF	\$	-	\$-	
44	3/0 AWG	Section 26 05 19	2,500	LF	\$	-	\$-	
45	4/0 AWG	Section 26 05 19	2,500	LF	\$	-	\$-	
46	250 AWG	Section 26 05 19	2,500	LF	\$	-	\$-	
47	300 AWG	Section 26 05 19	2,500	LF	\$	-	\$-	
48	350 AWG	Section 26 05 19	2,500	LF	\$	-	\$-	
49	400 AWG	Section 26 05 19	2,500	LF	\$	-	\$-	
50	500 AWG	Section 26 05 19	2,500	LF	\$	-	\$-	
51	7/C #10 Class B Type TC (ETS Cable)	Section 16128	2,500	LF	\$	-	\$ -	BASES FOR AWA
52	12/C #12 Type ALS/MC (ETS Cable)	Section 16128	2,500	LF	\$	-	\$ -	CATEGORY (C

(Unit price "MUST" be entered on each line item)

	CATEGOR	Y (D)							
	MULTI-CONDUCTOR "ATC" CABLE					PRICE	EXTEN	IDED TOTAL	
53	2/C #14	Section 32 42 49	2,500	LF	\$	-	\$	-	
54	5/C #14	Section 32 42 49	2,500	LF	\$	-	\$	-	
55	10/C #14	Section 32 42 49	2,500	LF	\$	-	\$	-	
56	9/C #14	Section 32 42 49	2,500	LF	\$	-	\$	-	
57	27/C# 14	Section 32 42 49	2,500	LF	\$	-	\$	-	
58	37/C #14	Section 32 42 49	2,500	LF	\$	-	\$	-	
59	40/C #14	Section 32 42 49	2,500	LF	\$	-	\$	-	
60	3/C #10 +10/c #14	Section 32 42 49	2,500	LF	\$	-	\$	-	
61	50pr #19 7W TC (DTS Cable)	Section 32 42 49	2,500	LF	\$	-	\$	-	
62	1/C #10	Section 32 42 49	2,500	LF	\$	-	\$	-	BASES FOR AWARD
63	1/C #6	Section 32 42 49	2,500	LF	\$	-	\$	-	CATEGORY (D)
CAT	EGORY D "ATC Signal Cables"	(Line Items 5	3 thru 63) 1	OTAL:	-		\$		= \$

(Unit price "MUST" be entered on each line item)

COMPANY: ADDRESS:

AUTHORIZED SIGNATURE:

(Print Name/Title)

March 5, 2018

FQ18050 CABLE SUPPLY

Price Schedule

FIBER OPTIC CABLE

CATEGORY (E)						1S	T YEAR			2N	D YEAF	ર		3RD	YEAR		тн ү	EAR	51	H YEAR	
	S	SUPERIOR ESSEX	ESTIMATED				EXTE	NDED	U	JNIT	EXT	ENDED	UNI	Т	EXTENDED		E	EXTENDED	UNIT	EXTEN	DED
Item #	DESCRIPTION -0	or- EQUAL	QUANTITY	<u>UOM</u>		RICE	то	TAL	P	RICE	тс	DTAL	PRIC	E	<u>TOTAL</u>	UNIT <u>PRI</u>	LE	<u>TOTAL</u>	PRICE	ΤΟΤΑ	L
	FIBER OPTIC CABLE																				
64	Corrugated Steel Armor Fiber Optic Cable (144 Fiber, Single Mode) * "SEE BELOW"	FH26-144-U13- D995-01Q	660,000	LF	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -	\$-	\$	-	\$ -	\$	-
65	Corrugated Steel Armor Fiber Optic Cable (288 Fiber, Single Mode)	FH26-288-U13- D995-01Q	500,000	LF	\$	-	\$	-	\$	-	\$	-	\$	-	\$-	\$ -	\$	-	\$ -	\$	-
66	Corrugated Steel Armor Fiber Optic Cable (72 Fiber, Single Mode) * "SEE BELOW"	FH26-072-U13- D995-01Q	300,000	LF	\$	-	\$	-	\$	-	\$	-	\$	-	\$-	\$-	\$	-	\$ -	\$	-
67	Corrugated Steel Armor Fiber Optic Cable (24 Fiber, Single Mode) * "SEE BELOW"	FH26-024-U13- D995-01Q	300,000	LF	\$	-	<u>\$</u>	-	\$	-	<u>\$</u>	-	\$	-	\$	\$ -	<u>\$</u>			<u>\$</u>	-
* _{FIBEI}	R OPTIC CABLES TECHNCIAL REQUIREMENT	TS"																	BASIS	GORY (E <u>FOR AWARI</u> 0.00	-
	d NFPA 130 (2014) Compliant.		Complete Spe	cificat	tion rea	uireme	ents in E	xhibit A	"Tech	ncial Re	auirem	nents									
Certified Corruga <u>Indoor</u> Outdoo Improve	d Low Smoke Zero Halogen rated (LSZH). ted Steel Armor <u>'Outdoor Plant rated.</u>	Zero Halogen rated (LSZH). All quantities are "estimates" for pricing purposes only. or UNIT PRICES for FIBER CABLES ARE FIRM FIXED PRICE (FFP) - FOR ALL YEARS (5 years). nt rated. The offeror is notified that there will be no adjustment of unit prices for variations in quantities between the estimated quantites and the final quantites ordered. ance (Bend Insensitive) Unit prices "MUST" be entered on each line item to be eligible for award per category.																			
Gel-Free Cable la	e (dry water block technology) or easy clean gel. beling shall include footage markers. UV stabilized flame resistant outer jacket (LSZH)	y water block technology) or easy clean gel. ng shall include footage markers. COMPANY: ADDRESS:																			
Grange	ov stasmizen hanne resistant onter jatket (LSZH)	<i>.</i>							AUTH		SIGNATU	RE									
															(Print Name/Title)						
																			A 1/4		#2

(Page 3 of 3)

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY Contract No.: FQ18050 SUPPLY AND SERVICE CONTRACT (IDIQ) March 5, 2018

FQ18050 CABLE SUPPLY

Price Schedule

FIBER OPTIC CABLE

	CATEGORY	((E)			BA	SE YEAR	-OPTIO	- 1ST YEAR	OPTION	- 2ND YEAR	OPTION	- 3RD YEAR	OPTION	- 4TH YEAR
Item #	DESCRIPTION	SUPERIOR ESSEX	ESTIMATED	UOM	UNIT PRICE	EXTENDED	UNIT	EXTENDED	UNIT	EXTENDED	UNIT PRICE	EXTENDED	UNIT	EXTENDED
<u>itteni </u>		-or- EQUAL	QUANTITY	00111		TOTAL	PRICE	TOTAL	PRICE	TOTAL		TOTAL	PRICE	TOTAL
	FIBER OPTIC CABLE		•											
64	Corrugated Steel Armor Fiber Optic Cable (144 Fiber, Single Mode) * "SEE BELOW"	FH26-144-U13- D995-01Q	660,000	LF	\$-	\$ -	\$-	\$	s -	\$-	\$-	\$-	\$-	\$ -
65	Corrugated Steel Armor Fiber Optic Cable (288 Fiber, Single Mode) * "SEE BELOW"	FH26-288-U13- D995-01Q	500,000	LF	\$ -	\$	\$	SEI		\$ -	\$	ş -	\$-	\$ -
66	Corrugated Steel Armor Fiber Optic Cable (72 Fiber, Single Mode) * "SEE BELOW"	FH26-072-U13- D995-01Q	300,000	LF	\$ -	\$	\$ -	ş -	\$	ht	# 4		\$ -	\$ -
67	Corrugated Steel Armor Fiber Optic Cable (24 Fiber, Single Mode) * "SEE BELOW"	FH26-024-U13- D995-01Q	300,000	LF	\$ -	\$	5	3	\$.	<u>\$</u>	\$-	<u>\$ -</u>		<u>\$</u>
* FIBE	R OPTIC CABLES "TECHNCIAL REQUIREMEN	GORY E (Line the magnet with any of the control of												
Certifie Corruga <u>Indoor</u> Outdoo Improve	d NFPA 130 (2014) Compliant. d Low Smoke Zero Halogen rated (LSZH). ted Steel Armor <u>/ Outdoor Plant rated.</u> r Rated. ed Bend Tolerance (Bend Insensitive) 1 compliant -or- better glass fibers.	PLEASE NOTE: Complete Specification requirements in Exhibit A "Techncial Requirements All quantities are "estimates" for pricing purposes only. <u>UNIT PRICES for FIBER CABLES ARE FIRM FIXED PRICE (FFP)</u> - FOR ALL YEARS (BASE and 4 option years). The offeror is notified that there will be no adjustment of unit prices for variations in quantities between the estimated quantites and the final quantites ordered. Unit prices <u>"MUST"</u> be entered on each line item to be eligible for award per category.												
Gel-Fre Cable la	e (dry water block technology) or easy clean gel beling shall include footage markers. UV stabilized flame resistant outer jacket (LSZH	ADDRESS:												
							AUTHORIZED	SIGNATURE		(Print Name/Title)		-		

PRICE SCHEDULE SHEET (Page 3 of 3)

WASHING	STON METROPOLITAN AREA TRANSIT AUTHORITY	
Contract No.: FQ18050	SUPPLY AND SERVICE CONTRACT (IDIQ)	March 5, 2018

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

SOLICITATION, OFFER AND AWARD

CONTINUATION SHEET

THE UNDERSIGNED ACKNOWLEDGES RECEIPT OF THE FOLLOWING AMENDMENTS

TO SOLICITATION IFB No.: FQ18050

Amendment Number	1	Dated	3/12/2018
Amendment Number	2	Dated	3/19/2018
Amendment Number		Dated	
Amendment Number		Dated	

Failure to acknowledge receipt of all amendments may render the bid unacceptable.

Authorized Signature

Print (Name/Title)

Company Name

Date:

SOLICITATION INSTRUCTIONS

IFB SOLICITATION INSTRUCTIONS

1. INTRODUCTION

- (a) The Authority seeks to issue up to (5) five awards under this contract to provide various cable types as stated in the "Price Schedule" categories (A) through (E). To that end, WMATA is issuing this Invitation for Bids (IFB) to solicit bids from qualified firms and individuals who can satisfy the requirements of the Contract.
- (b) Since this is a low bid solicitation, award(s) of a Contract(s) hereunder shall be to the lowest priced, responsible bidder whose bid is responsive to, and meets all requirements of, the solicitation (Note: Please see page 19, #23 Basis for Contract Award).
- (c) The Authority contemplates award of a firm fixed unit price Contract. Unless otherwise specified in the Price Schedule, the Authority reserves the right to make multiple awards pursuant to this solicitation.
- (e) In the event that the Contractor is unable or otherwise fails to provide goods or services within the time frames required in this Contract, the Authority reserves the right to procure them from any other source and in any other manner it deems appropriate. Nothing contained herein shall be deemed to waive, modify or impair the Authority's right to treat such failure as a material breach of the Contractor's obligations pursuant to the "Default" article of this Contract, or to pursue any other remedy to which the Authority may be entitled pursuant to this Contract, at law or in equity.

(f) **INDEFINITE QUANTITY**

This solicitation seeks to award an indefinite-quantity contract or contracts for the supplies or services specified, and effective for the period of performance stated in the Price Schedule.

The **<u>quantities</u>** of supplies and/or services specified in the Price Schedule are estimates only and are not guaranteed purchased amounts under this Contract. Failure to order the amounts estimated will not create any contractual liability beyond the amount of the stated minimum.

2. <u>GOODS TO BE FURNISHED/SERVICES TO BE SUPPLIED</u>

Bidders are advised that:

- (a) If "services" are to be performed pursuant to this solicitation, they must be provided in all respects as specified in the Contract and include the services to be furnished, together with any labor, materials or other work necessary for satisfactory and complete performance.
- (b) If "supplies" are to be provided pursuant to this solicitation, they must be delivered in all respects as specified in the Contract and include the items to be furnished, together with any labor, service or other work necessary for satisfactory and complete performance.
- (c) Contractor agrees that Project property will remain available to be used for its originally authorized purpose throughout its useful life or disposition.

3. <u>COMMUNICATIONS WITH THE AUTHORITY</u>

Prospective bidders are advised that any and all communications with WMATA relating to this solicitation and made by, or on behalf of, a prospective bidder at any time between release of this IFB and Contract award, must be directed to the Contract Administrator as follows:

Margarita Rodriguez, Contract Administrator

mRodriguez@wmata.com

A violation of this provision, deemed willful by the Authority, may result in a determination that an offeror is not responsible, and thus ineligible for award, for purposes of this and/or future Authority solicitations.

4. PREPARATION OF BIDS

- (a) Bidders shall furnish all information requested by the solicitation and, in so doing, are expected to examine the IFB and all referenced documents carefully. Failure to do so will be at bidder's risk.
- (b) The bidder shall sign the solicitation and print or type its name on the Price Schedule and on each continuation sheet, if an entry has been made. Erasures or other changes must be initialed by the person signing the bid.
- (c) Bidders must state a definite time for delivery of supplies or for performance of services unless otherwise specified in the solicitation.
- (d) Bidders should be aware that all prices for the work shall be deemed to include the cost of all work, labor and materials required by the Contract including, without limitation, delivery charges, insurance, bond premiums or any other expenses required by this Contract, as well as expenses associated with compliance with Federal, State or local laws or regulatory requirements. All prices are deemed to be F.O.B. Destination.

5. EXPLANATIONS TO BIDDERS

- (a) Any explanation desired by a bidder regarding the meaning or interpretation of the solicitation or Contract including, without limitation, the terms and conditions, technical specifications or Scope of Work, and Contract drawings, must be requested in writing with sufficient time allowed for a reply to reach all bidders before the date that bids will be opened. Absent extraordinary circumstances, all inquiries must be transmitted in a time frame to ensure the Contracting Officer's receipt at least ten (10) days prior to the date specified for bid opening. All such requests must be submitted via e-mail or first class mail to the Contract Administrator identified in Paragraph 3. Include the IFB number and Contract title in any correspondence.
- (b) Any information that the Authority furnishes to a prospective bidder relating to this solicitation will be provided in writing to all prospective bidders in the form of an amendment if, in the Contracting Officer's judgment, the information is necessary to the preparation and/or submittal of proposals or lack of such information would be otherwise prejudicial to other prospective bidders. Bidders must acknowledge receipt of all amendments on the form provided.

- (c) Oral explanations, representations or instructions of any kind relating to the subject matter of this solicitation given at any time before award of the Contract by any employee, officer or agent of the Authority, will not be binding upon the Authority. The Authority does not assume responsibility for the accuracy of any such communication.
- (d) The failure of a prospective bidder to request an explanation will serve to preclude it from claiming any ambiguity, inconsistency or error that should have been discovered by a reasonably prudent bidder.

6. PRE-BID CONFERENCE

[NOT APPLICABLE]

7. AMENDMENTS PRIOR TO DATE SET FOR OPENING OF BIDS

- (a) The Authority reserves the right to amend any of the terms of this IFB, the proposed Contract's terms and conditions, the Scope of Work and/or drawings prior to the date set for the opening of bids. Copies of any such amendments as may be issued will be furnished in writing to all prospective bidders.
- (b) If, in the Contracting Officer's judgment, any amendment(s) would require material changes in bid quantities and/or price, the date set for bid opening may be postponed for such period that, in the Contracting Officer's opinion, will enable bidders to revise their bids. In such instances, the amendment will include an announcement of the new date for bid opening.
- (c) In the event of an amendment, all other terms and conditions of the solicitation shall remain unchanged.

8. <u>ACKNOWLEDGMENT OF AMENDMENTS</u>

Bidders are required to acknowledge receipt of all amendment(s) to the solicitation on the designated form to be submitted with their bid. Failure to acknowledge all amendments may cause the bid to be considered not responsive to the solicitation, which would require rejection of the bid.

9. PREPARATION OF BIDS

a. Bids shall be submitted on the Price Schedule furnished, or copies thereof, and must be signed and then uploaded to "Procore".

If erasures or other changes appear on the forms, such erasures or changes must be initialed by the person signing the bid.

- b. Bidders shall furnish all information required by this IFB and, in so doing, are expected to fully examine the IFB and all attached documents. Failure to do so will be at the bidder's risk.
- c. Discounts for prompt payment will not be considered in the evaluation of bids. However, any offered discount will be included within the award of the Contract and the Authority will apply it, if payment is made within the discount period referenced in the bid.
- d. The Price Schedule may include prices for one or more items that are unit prices, lump sum bids, alternate prices, or a combination thereof. Submittal of prices for all categories on the Price Schedule is not required. However, if bidder submits a bid for any one category, it must bid on all line items within that category to be considered. Bidders shall insert the words <u>"NO BID"</u> in the space provided for any item for which no price is submitted.

PLEASE NOTE: Contract award will be based on the total lowest price for each category. Award will not be considered if any item is <u>"NO BID"</u> within that category. Unit pricing <u>"must"</u> be submitted on each bid line to be eligible for category award.

- e. All bid prices shall be deemed to include the cost of all work, labor and materials required by the Contract, including without limitation, delivery charges, insurance, container charges or any other expenses incidental to the work, including, but not limited to expenses associated with compliance with Federal, State or local laws or regulatory requirements. All bid prices are deemed to be F.O.B. Destination.
- f. Unless specifically permitted by the Price Schedule, alternate bids will not be considered.

Bids will be reviewed for complete conformance to the IFB documents. Bids that do not comply with the referenced instructions and requirements and do not include the required submittals may be <u>rejected</u> as being non-complaint.

10. SUBMITTAL OF BIDS

- a. Electronic Bid Submission through "**PROCORE**", a mechanism which allows bidders/vendors to electronically submit bids.
- b. Bidders are responsible and must ensure that its submission in "PROCORE" can be accessed.

Please contact the Contract Administrator via email: <u>mdRodriguez@wmata.com</u> And providing the following information:

Company	Contact(s) Name/Title	Telephone Number(s)
Address	Address	Email
Web-site	NOTE: Please provide n	nore than 1 contact.

You will receive a "Welcome to PROCORE" email, which will enable you to create your password (for first time users).

- c. Facsimile bids, postage mailed delivered packages <u>will not be considered</u>.
- d. All bids will remain sealed until the date and time specified for the opening of bids.
- e. <u>BID Format</u> Any statement in this document that contains the word "will", "must" or "shall" means

that compliance with the intent of the statement is mandatory, and failure by the bidder to satisfy that intent will cause the bid to be rejected. All bid pricing must be United States dollars and cents. Bids will only be accepted in the English language.

- f. Bidders must execute required signature pages listing personnel who are authorized to bind the bidder to contractual agreement(s) as follows:
 - 1) <u>Sole Proprietor</u> (Individual or sole Proprietor) The Bid must be executed with a handwritten signature by the owner.
 - <u>Partnership</u> (General, Limited or other Partnership) The Bid must be executed with a handwritten signature by a general partner of that partnership.
 - 3) Joint Venture (JV) (Cooperative Agreement) The Bid must be executed with a handwritten signature by <u>each</u> member or, in lieu thereof, by a member of the joint venture expressly designated as the authorized signatory on behalf of all the joint ventures as evidenced by supporting documentation submitted with the Bid and satisfactory as to form and substance to WMATA.
 - <u>Corporation</u> (Corporation or Business Trust) The Bid must be executed with a hand written signature by either the president, vice president, secretary, assistant secretary, treasurer, or assistant treasurer of the corporation or business trust.

5) Other

If any general partner or joint venture executing the Bid is a corporation or business trust, the Bid must be signed on behalf of such general partner or joint venture by a duly authorized officer, trustee, director or other representative of such general partner or joint venture and must be accompanied by supporting documentation evidencing such authorization and satisfactory as to form and substance to WMTA.

In the event that the Bid is signed by a person other than the aforementioned listed, then the Bid must contain supporting documentation, satisfactory as to form and substance to WMATA, authorizing the signatory to bind the entity in contractual matters.

Example: Corporation shall submit a copy of the resolution adopted by the Board of Directors and certified to by the secretary of the corporation or business trust.

g. Electronic submission:
 Each bidder shall be deemed to have electronically signed documents by submitting its bid in "Procore".

NOTE: Original signature documents will have to be mailed to the Contract Administrator.

h. Contractual: The contractual documents shall contain the following, fully executed;

<u>Bid Submittal:</u> Solicitation, Offer and Award form, Price Schedule sheet(s), Addendums (if applicable), Certification and Representations.

<u>Pre Award:</u> Pre-Award Evaluation Data form (completed as instructed). Insurance Requirement(s) with Exhibit "A".

Failure to follow these instructions may result in a premature opening of, or a failure to open, a bid, for which, the Authority assumes no responsibility.

Any failure by the Bidder to carefully and completely review the Bid Documents, any conditions potentially affecting the supplies/duties or to acquaint itself with all available information shall not relieve bidder(s) it from responsibility for estimating properly nor relieve the bidder(s) from responsibility for successfully executing orders without additional expense to WMATA.

Submittal of a bid shall signify that the bidder has accepted in whole the agreement, since exceptions to terms and conditions is not permitted in an IFB.

11. <u>RESPONSIVE BIDS</u>

- a. Bidders are advised that a bid that is at variance or noncompliant with any provision of this solicitation, including a qualified or conditional bid, may be rejected as non-responsive.
- b. The Contracting Officer may reject a bid as nonresponsive if, in his or her judgment, the bid prices are materially unbalanced. Bid prices are materially unbalanced when they are significantly understated for one (1) or more element(s) of work and significantly overstated for other element(s) of work.
- c. The Authority reserves the right to waive minor errors or omissions in a bid and to deem it responsive.
- d. WMATA's determination in regard to the responsiveness of a bid and the responsibility of a bidder shall be final and binding on the bidder(s).

12. LATE BIDS AND MODIFICATIONS OR WITHDRAWALS PRIOR TO BID OPENING

- a. Any bid received at the office designated in the solicitation after the exact time specified for bid opening will not be considered, unless it is received before award and it:
 - (1) The only acceptable evidence to establish the time of receipt by the Authority's the time/date stamp of that electronic event on the bid or any other documentary evidence of receipt maintained by the Authority or through "PROCORE".
 - (2) Is the only bid received.
- b. Any modification or withdrawal of a bid is subject to the same conditions as set forth in subparagraphs (a) (1) through (a) (2) above.
- c. The only acceptable evidence to establish the time of the Authority's receipt is the time/date stamp of that event on the bid wrapper or other documentary evidence of receipt maintained by the Authority.
- d. Notwithstanding subparagraph (a), a late modification of any otherwise successful bid that makes its terms more favorable to the Authority will be considered at any time it is received and may be accepted.
- e. Bids may be withdrawn by written notice, received by the Authority before the opening of bids. Bids may be withdrawn in person by a bidder, or its authorized representative, if the representative's identity is established to the Contracting Officer's satisfaction and the representative signs a receipt for the return of the bid, before the opening of bids. The attempted withdrawal of a bid, received subsequent to bid opening and during the acceptance period set forth in paragraph 12, will not be honored and will be without effect.

13. <u>BID ACCEPTANCE PERIOD AND BIDDER'S DEFAULT</u>

- a. The acceptance period for this solicitation is ninety (90) calendar days.
- b. By submission of its bid, the bidder agrees that it shall be irrevocable and shall remain available to WMATA to award a Contract pursuant to this solicitation for not less than the acceptance period. The bidder's failure to furnish required documents and/or to execute a Contract from WMATA in accordance with its bid, during the acceptance period shall constitute a bidder's default.
- c. In the event of a bidder's default, the bidder shall be liable to WMATA for all associated damages and costs, including without limitation, WMATA's "cost to cover." The "cost to cover" is the difference between the bid price and the price WMATA ultimately pays for the work encompassed in this solicitation, whether through award of a Contract to another bidder, pursuant to this solicitation or otherwise.

14. BID GUARANTEE

[NOT APPLICABLE]

15. <u>BID MISTAKE</u>

- a. A bidder who seeks to withdraw its bid subsequent to bid opening due to a claimed mistake or error in its preparation shall notify the Contracting Officer, in writing, immediately upon realizing the mistake, but not later than three (3) business days following bid opening. Such notification must set forth the details of, and explanation for, the claimed mistake. The Contracting Officer shall evaluate the claimed mistake and determine whether the bidder will be permitted to withdraw its bid.
- b. In the event of an apparent discrepancy between any unit price and its associated extended price, the unit price will be presumed to be correct. The Contracting Officer may award a Contract to an otherwise low bidder based upon the unit price, subject to the additional terms of this article.
- c. A bidder claiming a mistake shall, at the Contracting Officer's request, appear before one (1) or more designated Authority representative(s) to provide testimony and/or documentation that may include the bidder's computation sheets and calculations, to assist in the Authority's determination.
- d. Nothing contained herein shall preclude the Contracting Officer from allowing a bidder to cure a deficiency in an otherwise responsive bid where he or she determines that such deficiency is in the nature of a minor informality or irregularity.

16. <u>REPRESENTATIONS, CERTIFICATIONS, AND ACKNOWLEDGMENTS</u>

All bidders shall check or complete all applicable boxes or blocks, and provide all requested information, and signatures on the attached "Representations and Certifications" form. Bidders are reminded of the obligation to fully and faithfully complete the accompanying "Representations and Certifications" form that must be submitted with its bid. Failure to do so may result in the bid being rejected as nonresponsive.

17. LAWS AND REGULATIONS

Bidders are responsible for complying with any and all applicable State of Maryland, Commonwealth of Virginia, District of Columbia, and Federal laws and regulations governing the supplies to be provided under this Contract. Further, the successful bidder shall be responsible to obtain, at its own cost and expense, any and all licenses/permits required to transact business in any political jurisdictions where work will be performed.

18. <u>ROYALTY INFORMATION</u>

[NOT APPLICABLE]

19. REQUIREMENT FOR COST DATA FOR CONTRACT AWARD

The Authority may require the apparent low bidder to submit cost data in sufficient detail to permit analysis of the cost elements that comprise the bid prices. In such instances, the apparent low bid may, at the discretion of the Authority, be subject to audit.

20. PRE-AWARD INFORMATION/BIDDER RESPONSIBILITY

- (a) In order to be eligible for award of a Contract, a bidder must affirmatively demonstrate to the Contracting Officer's satisfaction that it is responsible for purposes of this solicitation. Such demonstration must include a showing that it maintains the requisite integrity, overall technical expertise and experience, (including prior performance on other Authority contracts or contracts with other government agencies), and sufficient financial resources to perform the Contract in a timely, satisfactory and appropriate manner. Failure to so demonstrate may result in rejection of the low bidder as not responsible. In such event, the second lowest bidder will be required to demonstrate its responsibility. This process will continue until a bidder successfully demonstrates that it is responsible for purposes of Contract award.
- (b) The Contracting Officer may conduct a pre-award survey and/or take other actions to obtain information regarding the apparent low bidder's responsibility. The apparent low bidder shall promptly supply information that the Contracting Officer requests regarding its responsibility, in such manner and form as he or she requests.

- (c) Among other items, the apparent low bidder shall furnish the following when the Contracting Officer requests:
 - (1) A completed and signed "Pre-Award Evaluation Data" form (copy attached), including all referenced financial statements and information;
 - (2) Evidence of good standing in the System for Award Management (SAM) at <u>www.sam.gov</u>.
 - (3) Disadvantaged Business Enterprise data as set forth in Appendix B. The submittal of certain items and request for waiver (if applicable) are required if the bid is \$150,000 or greater. Failure to submit forms B-12, B-13, and/or to request waivers (if applicable) may cause the bid to be rejected. A bidder's failure to supply this information or otherwise fully cooperate with the Authority's inquiry may result in a determination that the bidder is not responsible for purposes of this solicitation and thereby ineligible for award.
 - (4) Small Business Enterprise (SBE) documentation (if applicable) as set forth in Appendix B-1. The bidder's failure to supply this information or otherwise fully cooperate with the Authority's inquiry may result in a determination that the bidder is not responsible for purposes of this solicitation and thereby ineligible for award.

21. PRE-AWARD RESPONSIBILITY MEETING

The Authority reserves the right to require that a pre-award meeting be held with the apparent low bidder prior to Contract award in order to further assist the Authority in determining the bidder's responsibility for purposes of award.

22. <u>SITE VISIT/INSPECTION OFFEROR'S FACILITIES</u>

A successful bidder must maintain sufficient facilities that will allow it to adequately perform Contract as specified herein. WMATA may make site visits prior to Contract award to examine the bidder's facilities. This will include required verification and inspection of steel products (if applicable) and also to verify that necessary equipment, supplies, etc. are readily available.

23. **BASIS FOR CONTRACT AWARD**

- Award(s) of this Contract will be made based solely on the lowest price as stated in the a. Price Schedule, to the bidder(s) (i) whose bid is judged to be responsive to the terms of the solicitation and (ii) who demonstrates to the Contracting Officer's satisfaction that it is responsible for purposes of award of this Contract.
- b. Unless otherwise expressly specified in the Price Schedule, the Authority may make multiple awards as a result of this solicitation.

BASES FOR AWARD	UNIIT PRICING – <u>"MUST"</u> be entered on all line items (Per each Category)					
Category (A)	Traction Power	Bid Lines 1 through 12				
Category (B)	Power Cables	Bid Lines 13 through 35				
Category (C)	ALS Cables	Bid Lines 36 through 54				
Category (D)	ATC Signal Cable	Bid Lines 55 through 64				
Category (E)	Fiber Optic Cable	Bid Lines 65 and 68				

- The Authority reserves the right to reject all bids and cancel this solicitation at any time C. prior to award.
- d. A written award notice mailed or otherwise furnished to the successful bidder within the acceptance period shall result in a binding contract without further action by either party.

Contract(s) will be awarded to the responsible and responsive bidder(s) offering the lowest total price for each listed category; Grand Total Price for all years (Base + 4 option years = total), as indicated in the contract documents.

24. EQUAL EMPLOYMENT OPPORTUNITY

In order to be eligible for award of a Contract pursuant to this solicitation, the apparent low bidder will be required to comply with all applicable Equal Employment Opportunity laws and regulations.

25. PERFORMANCE/PAYMENT BONDS

[NOT APPLICABLE]

26. <u>DISADVANTAGED BUSINESS ENTERPRISES REQUIREMENTS</u>

Attached as part of this solicitation are documents outlining the requirements for the Disadvantaged Business Enterprise (DBE) Program: **The DBE requirement/goal for this Contract is _____1%___ unless a good faith waiver is requested and approved.**

(a) If the proposal is over \$150,000, in order for the offeror to be considered responsible, the following documents (See Appendix B) shall be completed and submitted with the bid:

Schedule of DBE Participation

Letter of Intent to Perform as Subcontractor/Joint Venturer (If applicable)

DBE Unavailability Certification (Where applicable)

Written request for waiver, when DBE participation is less than stated percentage.

(b) If this Contract involves a Small Business Enterprise (SBE) set-aside, the provisions of Appendix B-1 are applicable. Appendix B-1 forms must be completed by each bidder to insure that its bid is acceptable.

The provisions of Appendix B (if attached) do not become applicable and forms do not have to be completed, unless the total bid price is \$150,000 or more. If the bid is \$150,000 or more and any portion of the submittal requirement is omitted, then the bid may be found to be unacceptable and subsequently rejected. Appendix B forms and/or waivers must be completed with great care by each bidder to ensure that its bid is acceptable.

27. OPPORTUNITY FOR DISADVANTAGED BUSINESS ENTERPRISES TO BID

The Washington Metropolitan Area Transit Authority hereby notifies all prospective bidders that it will affirmatively ensure that disadvantaged minority business enterprises will be afforded full opportunity to submit bids in response to this solicitation and will not be discriminated against on the basis of race, color, creed, sex, religion, national origin, disability, sexual preference and/or gender identity in consideration for award.

28. NOTICE OF PROTEST POLICY

- (a) The Authority's procedure for the administrative resolution of protests is set forth in Chapter 17 of WMATA's Procurement Procedures Manual (PPM). The procedures contain strict rules for filing a timely protest, for responding to a notice that a protest has been filed, and other procedural matters.
- (b) The basis on which FTA will review a grantee's protest decision is defined in §17-8. FTA will generally exercise discretionary jurisdiction over cases deemed to involve issues important to the overall third party contracting program. FTA's decision to decline jurisdiction over a protest does not imply approval of or agreement with the agency's decision or that FTA has determined that this Contract is eligible for Federal participation.
- (c) Alleged violations must be submitted to the Contracting Officer who will administratively decide the protest.
- (d) The United States District Courts for the Districts of Maryland, Virginia and the District of Columbia, and the local courts in Maryland, Virginia and the District of Columbia have jurisdiction over court actions concerning protest decisions.

29. WMATA'S TAX EXEMPT STATUS

(a) Pursuant to Article XVI, Paragraph 78, of the Washington Metropolitan Area Transit Authority's Compact, as adopted by the State of Maryland, the District of Columbia, and the Commonwealth of Virginia, with the authorization and consent of the Congress of the United States, the Authority has been accorded exemption from taxes as follows:

> "The Authority and the Board shall not be required to pay taxes or assessments upon any of the property acquired by it or under its jurisdiction, control, possession or supervision, or upon its activities in the operation and maintenance of any transit facility or upon any revenues therefrom, and the property and income derived therefrom shall be exempted from all Federal, State, District of Columbia, municipal, and local taxation. This exemption shall include without limitation, all motor vehicle license fees, sales taxes and motor fuel taxes."

(b) By submission of its bid, the bidder certifies that none of the taxes that the Authority is exempt from are included therein.

30. ENGLISH LANGUAGE AND UNITED STATES CURRENCY

With respect to both this solicitation and the resultant Contract:

- (a) All communications (oral, written, electronic and otherwise including but, not limited to, software coding) shall be in the English language.
- (b) All pricing shall be in United States dollars.

31. BRAND NAME OR EQUAL

- (a) If items called for by this IFB have been identified in the Price Schedule by a "brand name or equal" description, such identification is intended to be descriptive, but not restrictive, and is to indicate the quality and characteristics of products that will be satisfactory. Bids offering "equal" products, including products of the brand name manufacturer, other than the one described by brand name will be considered for award, if such products are clearly identified in the bids and the Authority determines that they fully meet the salient characteristics (physical, functional, or performance) requirements in the IFB.
- (b) Unless the bidder clearly indicates in its bid that it is offering an "equal" product, the bid shall be considered as offering a brand name product referenced in the IFB.
- (c) If the bidder proposes to furnish an "equal" product, a description of the product to be furnished shall be placed in the space provided in the IFB, or such product shall be otherwise clearly identified in its bid. The Authority, at its sole discretion, must be able to determine equality *without an extensive evaluation*. Thus, if the bidder has some information demonstrating equality of the proposed equal, such as acceptance by another transit agency, it should submit such documentation with its bid.
- (d) CAUTION TO BIDDERS. WMATA is not responsible for locating or securing any information that is not identified in its bid and reasonably available to the Authority. The offeror must furnish as a part of its proposal all descriptive material (such as cuts, illustrations, drawings, or other information) necessary for the Authority's determination.
- (e) The information furnished may incorporate by specific reference, information previously furnished or otherwise available to the Authority.

32. <u>REQUESTS FOR RECORDS</u>

The Washington Metropolitan Area Transit Authority (WMATA), in the regular course of business, may receive from the public, including prospective vendors and bidders, requests for records on a variety of topics. It is WMATA's policy to make official agency records, including electronic records, available to the public, unless specifically prohibited by WMATA's policy or applicable laws.

- (a) "Records" means any existing writings, drawings, maps, recordings, tapes, film, microfilm, correspondence, forms, cards, photographs, optical disks, photo copies, and records stored by computer (electronic records) that are made or received by WMATA in connection with a public contract. A record does not include uncirculated personal notes, papers, electronic records and any other records that were created and retained solely as work papers for personal use of the Contracting Officer, Contract Administrator or other WMATA employee.
- (b) WMATA's contracting process allows for the release/posting of certain information concerning this Contract after its award. This includes the name of the successful bidder and the amount of the award. This information is available on WMATA's website under "Business with Metro" or directly from the Contract Administrator.
- (c) Upon WMATA's request, the successful bidder shall be required to provide a redacted copy of its bid with confidential and proprietary information redacted.

- (d) After the award is announced, the winning proposal may be subject to release under WMATA's Public Access to Records Policy (PARP).
- (e) When WMATA determines that a bid will be of wide public interest, WMATA will post the redacted bid on its website. When WMATA receives three (3) or more requests for a successful bid, WMATA will post it on its website.
- (f) Requests for Records that are not made available during the procurement process will be submitted in accordance with the PARP. Requests must be in writing and sent by mail to the Office of General Counsel, Washington Metropolitan Area Transit Authority, 600 Fifth Street, NW, Washington, D.C. 20001, or by electronic mail at parpprivreq@wmata.com or by facsimile to the attention of the PARP Administrator at (202) 962-2550. If a request for records is sent directly from the requestor to a Contract Administrator, department, or independent office, that entity shall immediately forward the request to the PARP Administrator in the Office of General Counsel. If records are subject to a PARP request, a member of the PARP team will contact the company to begin the PARP document review process, which includes providing detailed written justifications for any information for which exemptions are claimed.
- (g) Neither WMATA's bidding process nor the PARP process generally allow for the release of information that would cause competitive harm to the bidders, other organizations, WMATA's employees, or interests. Information that will be withheld includes the following:
 - (1) The names of unsuccessful bidders;
 - (2) The bids of unsuccessful bidders;
 - (3) Personal information (this does not include education and qualifications which are released) about the successful bidder or its employees that is not available to the public on the website of the successful bidder;
 - (4) Unit price details of the successful bid (this does not include the bottom line price, which is released);
 - (5) The names of the vendors who file a protest to the solicitation or its award;
 - (6) The written adjudication of any protests;
 - (7) Personal information concerning WMATA's employees; and
 - (8) Trade secrets and confidential commercial or financial information obtained from a bidder.
- (h) If your company's records are subject to a PARP request (i.e., if it is the successful bidder), a broad claim of confidentiality for the entire bid is rarely acceptable, and will likely be rejected during the PARP process. Therefore, WMATA suggests that you narrowly identify your confidential/proprietary information based on the following guidance:

(i) <u>Information that may be withheld/redacted:</u> Detailed pricing except bottom line offer amounts;

(j) <u>Public information subject to release:</u>

- (1) Any information on your company's website;
- (2) Publicly known information (even if not on your company's website);
- (3) General company background;
- (4) Mere compliance with IFB requirements; and
- (5) Anything standard to the industry.

REPRESENTATIONS & CERTIFICATIONS

Instructions: Check or complete all applicable boxes or blocks on this form and submit it with your offer.

1. <u>TYPE OF BUSINESS ORGANIZATION</u>

By submission of this offer, the offeror represents that it operates as [] an individual, [] a partnership, [] a limited liability company, [] a joint venture, [] a nonprofit organization, or [] a corporation, incorporated under the laws of the State of ______.

Name	Signature
Title	Company
Date	

2. AFFILIATION AND IDENTIFYING DATA

Each offeror shall complete 2.1, 2.2 if applicable, and 2.3 below, representing that:

- 2.1 It [] is, [] is not, owned or controlled by a parent company. For this purpose, a parent company is defined as one that either owns or controls the activities and basic business policies of the offeror. To own another company, means that the parent company must own at least a majority, i.e., more than fifty percent (50%), of the voting rights in that company. To control another company, such ownership is not required. If another company is able to formulate, determine or veto the offeror's basic business policy decisions, such other company is considered the parent of the offeror. This control may be exercised through the use of dominant minority voting rights, use of proxy voting, Contractual arrangements or otherwise.
- **2.2** If the offeror is owned or controlled by a parent company, it shall insert in the space below the name and main office address of the parent company:

Name of Parent Company

Main Office Address (including ZIP Code)

2.3 If the offeror has no parent company, it shall provide in the applicable space below its own employer's identification number (E.I.N.), (i.e., number used on Federal tax returns or, if it has a parent company, the E.I. N. of its parent company).

Offeror E.I. N.: ______ or, Parent Company's E.I. N.: _____

Name	Signature
Title	Company
Date	

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY		
Contract No.: FQ18050	SUPPLY AND SERVICE CONTRACT (IDIQ)	<u>March 5, 2018</u>

3. PREVIOUS CONTRACTS AND COMPLIANCE REPORTS

This representation is applicable to federally assisted contracts. By submission of this offer, the offeror represents that:

- **3.1** It [] has, [] has not, participated in a previous contract or subcontract subject to either the Equal Opportunity Clause of this solicitation, or the clause contained in Parts II and IV of Executive Order 11246, as amended; that prohibits discrimination on the basis of race, color, creed, national origin, sex, age; and
- 3.2 It [] has, [] has not, filed all required compliance reports; and
- **3.3** Representations indicating submittal of required compliance reports signed by proposed subcontractors will be obtained prior to subcontract awards.

Name	Signature
Title	Company
Date	

4. DISADVANTAGED BUSINESS ENTERPRISE

This representation is applicable to federally assisted contracts. By submission of this offer, the offeror represents that:

4.1 It [] is, [] is not, a disadvantaged business enterprise.

"Disadvantaged Business Enterprise" means a for-profit small business concern that is at least fifty one percent (51%) owned by one or more individuals who are both socially and economically disadvantaged individuals or, in the case of a corporation, in which fifty one percent (51%) of the stock is owned by one or more such individuals; and whose management and daily business operations are controlled by one or more socially and economically disadvantaged individuals who own it.

"Socially and Economically Disadvantaged Individual" is defined in Appendix B. Notice of Requirements for Disadvantaged Business Enterprise (DBE). By submission of this offer, the offeror represents that:

- **4.2** It [] is, [] is not, currently certified by Metropolitan Washington Unified Certification Program (MWUCP) as a disadvantaged business enterprise.
- **4.3 Special Certification Requirements for Transit Vehicle Manufacturers.** Each transit vehicle manufacturer, as a condition of being authorized to bid or propose on FTA funded transit vehicle procurements, must certify that it has complied with the DBE requirements of 49 C.F.R. Part 26.

The offeror represents that it [] is or [] is not a transit vehicle manufacturer and [] has or [] has not complied with the DBE requirements of 49 C.F.R Part 26.

Name	Signature
Title	Company
Date	

5. <u>SMALL BUSINESS ENTERPRISE</u> (MAY 2015)

"Small Business Enterprise" means a for profit small business concern that is at least fifty one percent (51%) owned by one (1) or more individual(s) who are economically disadvantaged. "Economically Disadvantaged Individual" is defined in Appendix B-1, Definitions, in Notice of Requirements for Small Business Enterprise (SBE) Program.

- 5.1 It [] is, [] is not, a small business enterprise. A firm must be a small business as defined by the U.S. Small Business Administration (SBA) by applying current SBA business size standards found in 13 C.F.R. Part 121 that are applicable to the type of work the firm seeks to perform in USDOT assisted contracts. The fifty one percent (51%) owner must be a U.S. citizen or permanent resident. A firm must be organized for profit in order to be eligible for SBE certification. The firm's average gross receipts cannot exceed the overall USDOT size standard for a small business [\$23.98 million averaged over the three (3) previous fiscal years or part of year that the business has been in existence.] Set forth in 49 C.F.R. § 26.65, at least fifty one percent (51%) of the firm's ownership must be held by individuals who meet the personal net worth (PNW) cap of \$1.32 million as prescribed by 49 C.F.R. § 26.67.
- 5.2 It [] is, [] is not, currently certified by WMATA as a small business enterprise.

Name	Signature
Title	Company
Date	

6. AFFIRMATIVE ACTION COMPLIANCE

This representation is applicable to federally assisted contracts of \$50,000 or more that are awarded to contractors with fifty (50) or more employees. By submission of this offer, the offeror represents that:

- 6.1 It has a workforce of ______ employees.
- 6.2 It [] has developed and has on file, or [] has not developed and does not have on file, at each establishment, affirmative action programs required by the rules and regulations of the Secretary of Labor (41 C.F.R. §§ 60.1 and 60.2), or
- **6.3** It **[**] has not previously had contracts subject to the written affirmative action program requirements of the rules and regulations of the U.S. Secretary of Labor.

Name	Signature
Title	Company
	Company
Date	

7. COVENANT AGAINST GRATUITIES

By submission of this offer, the offeror certifies, and in the case of a joint offer, each party thereto certifies as to its own organization, that in connection with this procurement:

Neither it nor any of its employees, representatives or agents have offered or given gratuities (in the form of entertainment, gifts or otherwise) to any Board member, employee or agent of the Authority with the view toward securing favorable treatment in the awarding, or administration of this Contract.

Name	Signature
	Company
Title	Company
	-
Date	

8. <u>CONTINGENT FEES</u>

By submission of this offer, the offeror certifies, and in the case of a joint offer, each party thereto certifies as to its own organization, that in connection with this procurement:

- **8.1** It [] has, [] has not, employed or retained any company or persons (other than a full-time, bona fide employee working solely for the offeror) to solicit or secure this Contract, and
- 8.2 It [] has, [] has not, paid or agreed to pay any company or person (other than a full-time, bona fide employee working solely for the offeror) any fee, commission, percentage, or brokerage fee contingent upon or resulting from the award of this Contract.

Name	Signature
Title	Company
Date	

9. CLEAN AIR ACT AND CLEAN WATER ACT CERTIFICATION

This certification is applicable if the Contract will be federally assisted and the offer exceeds \$150,000, or the Contracting Officer believes that orders under an indefinite type Contract in any year will exceed \$150,000 or a facility to be used has been the subject of a conviction under the Clean Air Act [42 U.S.C. § 7413(c)(1)] or the Clean Water Act [33 U.S.C.§ 1319(c)], is listed by the U.S. Environmental Protection Agency (EPA) as a violating facility, and the acquisition is not otherwise exempt:

- **9.1** Any facility to be utilized in the performance of this Contract [] is, or [] is not listed on the EPA's List of Violating Facilities;
- **9.2** Offeror will immediately notify the Contracting Officer, before award, of the receipt of any communications from the Administrator, or a designee of the EPA, indicating that any facility that it proposes to use in the performance of this Contract is under consideration to be listed on the EPA's List of Violating Facilities; and
- **9.3** Offeror will include a certification substantially the same as this certification, including this paragraph, in every non-exempt subcontract.

Name	Signature
Title	Company
Date	

30

10. DEBARMENT, SUSPENSION, INELIGIBILITY, AND VOLUNTARY EXCLUSION

This certification is applicable to federally assisted contracts over \$25,000.

- **10.1** Primary Covered Transactions. This certification applies to the offer submitted in response to this solicitation and will be a continuing requirement throughout the term of any resultant Contract.
 - **10.1.1** In accordance with the provisions of 2 C.F.R. Part 1200 and 2 C.F.R. Part 180, Subpart C, the offeror certifies to the best of its knowledge and belief that it and its principals:
 - **10.1.1.1** are not currently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal or state department or agency;
 - **10.1.1.2** have not, within a three (3) year period preceding this offer, been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, state, or local) transaction or contract under a public transaction; violation of Federal or state antitrust statutes, or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
 - **10.1.1.3** are not currently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, state, or local) with commission of any of the offenses enumerated in paragraph (1) (ii) of this certification; and have not, within a three (3) year period preceding this offer, had one (1) or more public transactions (Federal, state, or local) terminated for cause or default.
 - **10.1.2** Where the offeror is unable to certify to any of the statements in this certification, the offeror shall attach an explanation to this offer.
- **10.2** Lower Tier Covered Transactions. This certification applies to a subcontract at any tier expected to equal or exceed \$25,000 and will be a continuing requirement throughout the term of this Contract.
 - **10.2.1** The prospective lower tier subcontractor certifies, by submission of this offer, that neither it nor its principals is currently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal or state department or agency.
 - **10.2.2** Where the prospective lower tier subcontractor is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.
- **10.3** The Certification required by 10.2, above, shall be included in all applicable subcontracts and the Contractor shall keep a copy on file. The Contractor shall be required to furnish copies of certifications to the Contracting Officer upon his or her request.

Name	Signature
Title	Company
Date	

11. <u>CERTIFICATION OF INDEPENDENT PRICE DETERMINATION</u>

- **11.1** By submission of its offer, the offeror certifies, and in the case of a joint offer, each party thereto certifies as to its own organization, that in connection with this procurement:
 - **11.1.1** The prices in this offer have been arrived at independently, without, for the purpose of restricting competition, any consultation, communication, or agreement with any other offeror or with any other competitor;
 - **11.1.2** Unless otherwise required by law, the prices that are quoted in this offer have not been knowingly disclosed by the offeror and will not be knowingly disclosed by the offeror prior to award (in the case of a negotiated procurement), directly or indirectly, to any other offeror or to any competitor; and
 - **11.1.3** No attempt has been made or will be made by the offeror to induce any other person or firm to submit or not to submit an offer, for the purpose of restricting competition.
- **11.2** Each person signing this offer certifies that:
 - **11.2.1** He or she is the person in the offeror's organization responsible for the decision regarding the prices being offered herein and that he/she has not participated, and will not participate, in any action contrary to 11.1.1 through 11.1.3 above; or
 - **11.2.2** He or she is not the person in the offeror's organization responsible for the decision regarding the prices being offered herein, but that he/she has been authorized in writing to act as agent for the persons responsible for such decision in certifying that such persons have not participated; and will not participate, in any action contrary to 11.1.1 through 11.1.3 above; or and as their agent he or she does hereby so certify.

Name	Signature
Title	Company
Date	

12. CERTIFICATION OF NONSEGREGATED FACILITIES

This certification is applicable to federally assisted contracts over \$10,000.

- **12.1** By submission of this offer, the offeror certifies, and in the case of a joint offer, each party thereto certifies as to its own organization, that in connection with this procurement:
 - **12.1.1** It does not and will not maintain or provide for its employees, any segregated facilities at any of its establishments, and that it does not and will not permit its employees to perform their services at any location under its control, where segregated facilities are maintained.
 - **12.1.2** The offeror agrees that a breach of this certification is a violation of the Equal Opportunity clause in this Contract.
 - **12.1.3** As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees that are segregated by explicit directive or are in fact segregated on the basis of race, color, religion or national origin, because of habit, local custom or otherwise.
 - **12.1.4** It further agrees that (except where it has obtained identical certifications from proposed subcontractors for specific time periods) it will:
- **12.2** Obtain identical certifications from proposed subcontractors before the award of subcontracts under which the subcontractor will be subject to the Equal Opportunity clause;
- **12.3** Retain such certifications in its files; and
- **12.4** Forward the following notice to such subcontractors (except if the proposed subcontractors have submitted identical certifications for specific time periods):

NOTICE TO PROSPECTIVE SUBCONTRACTORS OF REQUIREMENTS FOR CERTIFICATIONS OF NONSEGREGATED FACILITIES

A Certification of Nonsegregated Facilities must be submitted prior to award of a subcontract exceeding \$10,000 that is not exempt from the provisions of the Equal Opportunity clause. The certification may be submitted either for such subcontract or for all subcontracts during a period (i.e., quarterly, semiannually or annually).

Name	Signature
Title	Company
Date	

13. NONDISCRIMINATION ASSURANCE

13.1 By submission of this offer, the offeror certifies, and in the case of a joint offer, each party thereto certifies as to its own organization, in connection with this procurement, that it will not discriminate on the basis of race, color, creed, religion, national origin, sex, age, disability, sexual preference and/or gender identity in the performance of this Contract. The offeror is required to insert the substance of this clause in all subcontracts and purchase orders. The Contractor's failure to carry out these requirements is a material breach of this Contract, that may result in the termination of this Contract or such other remedy as the Authority deems appropriate. The offeror further agrees by submitting this offer, that it will include this certification, without modification, in all subcontracts and purchase orders.

Name/Title:	Signature
Date:	Company:

14. CERTIFICATION OF RESTRICTIONS ON LOBBYING

This certification is applicable to federally assisted contracts if the offer exceeds \$100,000.

- **14.1** By submission of this offer, the offeror certifies, and in the case of a joint offer, each party thereto certifies as to its own organization, that to the best of his or her knowledge or belief:
 - **14.1.1** No federally appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
 - **14.1.2** If any funds other than federally appropriated funds have been paid or will be paid to any person for making lobbying contacts to an officer or employee of any agency, a member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with this Contract, the undersigned shall complete and submit Standard Form--LLL, "Disclosure of Lobbying Activities."
 - **14.1.3** The undersigned shall require that the language of this certification be included in all sub-awards (including subcontracts, sub-grants and contracts under grants, loans and cooperative agreements) at all tiers and that all sub-recipients shall certify and disclose accordingly.
- **14.2** This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. § 1352, as amended. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.
- **14.3** The Contractor certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C.A.§ 3801, *et.seq.* apply to this certification and disclosure, if any.

Name	Signature
Title	Company
Date:	

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15. BUY AMERICA ACT CERTIFICATION

The Buy America Act requirements apply to federally assisted construction contracts, and acquisition of goods or rolling stock (including traction power equipment) contracts valued at more than \$150,000.¹

- 15.1 By submission of this offer, the offeror certifies, and in the case of a joint offer, each party thereto certifies as to its own organization, that in connection with this procurement it will comply with 49 U.S.C. § 5323(j) and 49 C.F.R. Part 661, which provide that Federal funds may not be obligated unless steel, iron, and manufactured products used in FTA funded projects are produced in the United States, unless a waiver has been granted by FTA or the product is subject to a general waiver. General waivers are listed in 49 C.F.R. § 661.7 Separate requirements for rolling stock are set out at 49 U.S.C. § 5323(j)(2)(C) and 49 C.F.R. § 661.11.
- **15.2** An offeror must submit to the Authority, the appropriate Buy America Act certification (below) with all offers on FTA funded contracts, except those subject to a general waiver. Offers that are not accompanied by a completed Buy America Act certification must be rejected as nonresponsive. This requirement does not apply to lower tier subcontractors. Mark the applicable certifications below:

15.2.1 Certification requirement for procurement of steel, iron, or manufactured products:

[] Certificate of Compliance with 49 U.S.C.§ 5323(j)(1)The offeror hereby certifies that it will meet the requirements of 49 U.S.C. § 5323(j)(1) and the applicable regulations in 49 C.F.R. § 661.5.

[] Certificate of Non-Compliance with 49 U.S.C. § 5323(j)(1)The offeror hereby certifies that it cannot comply with the requirements of 49 U.S.C. § 5323(j)(1) and 49 C.F.R. § 661.5, but it may qualify for an exception pursuant to 49 U.S.C. §§ 5323(j)(2)(A), 5323(j)(2)(B), or 5323(j)(2)(D), and 49 C.F.R. § 661.7.

15.2.2 Certification requirement for procurement of buses, other rolling stock (including traction power equipment) and associated equipment:

[NOT APPLICABLE]

Contificate of Compliance with 49 U.S.C.§ 5323(j)(2)(C) The offeror bereby certifies that it will comply with the requirements of 49 U.S.C. § 5323(j)(2)(C) and the regulations at 49 C.F.R. § 661.11.

[] Certificate of Non-Compliance with 49 U.S.C. 5323§ (j)(2)(C) The offeror hereby certifies that it cannot comply with the requirements of 49 U.S.C. § 5323(j)(2)(C) and 49 C.F.R. § 661.11, but may qualify for an exception pursuant to 49 U.S.C. §§ 5323(j)(2)(A), 5323(j)(2)(B), or 5323(j)(2)(D), and 49 C.F.R. § 661.7.

Name	Signature
Title	Company
Date	

¹ If the funding for this Contract comes from an FTA grant issued before December 26, 2014, then the limit is \$100,000.

16. <u>CERTIFICATION OF NON-DELINQUENT TAXES</u>

This certification is applicable to federally assisted contracts.

- **16.1** By submission of this offer, the offeror certifies, and in the case of a joint offer, each party thereto certifies as to its own organization, that in connection with this procurement:
 - **16.1.1** It has not been convicted over the past three (3) years of violating any Federal criminal tax law or failed to pay any tax.
 - **16.1.2** It has certified if it has been notified of an unresolved tax lien or any unsatisfied Federal tax delinquency in excess of \$3,000 and that it is paying tax debts through an installment agreement or has requested a collections due process hearing.
 - **16.1.3** The offeror agrees that a breach of this certification is a violation of the Federal Acquisition Regulation (FAR).
 - **16.1.4** As used in this certification, the term "tax delinquency" means an outstanding debt for which a notice of lien has been filed in public records.
 - **16.1.5** It further agrees that (except where it has obtained identical certifications from proposed subcontractors for specific time periods) it will:
- **16.2** Obtain identical certifications from proposed subcontractors before the award of subcontracts under which the subcontractor will be subject to the FAR.;
- **16.3** Retain such certifications in its files; and
- **16.4** Forward the following notice to such subcontractors (except if the proposed subcontractors have submitted identical certifications for specific time periods):

NOTICE TO PROSPECTIVE SUBCONTRACTORS OF REQUIREMENTS FOR CERTIFICATION OF NON-DELINQUENT TAXES

A Certification of Non-Delinquent Taxes must be submitted prior to award of a subcontract exceeding \$100,000 that is not exempt from the provisions of the FAR. The certification may be submitted either for such subcontract or for all subcontracts during a period (i.e., quarterly, semiannually or annually).

Name	Signature
Title	Company
Date	

March 5, 2018

17. DISCLOSURES OF INTERESTS OF WMATA BOARD MEMBERS

For purposes of this disclosure, terms in bold are defined by the Code of Ethics for Members of the WMATA Board of Directors a copy of which is available at <u>www.wmata.com</u>. Financial interests include ownership interests and prospective and actual income. Firm includes parents, subsidiaries and affiliates.

By submission of this offer, the offeror certifies, and in the case of a joint offer, each party thereto certifies as to its own organization, that to the best of its knowledge, information and belief in connection with this procurement:

- **17.1** [] No WMATA **Board member**, household member or business associate has a financial interest in this firm, in a financial transaction with the Authority to which this firm is a party or prospective party, or in an actual or prospective business relationship with the Authority to which this firm is a party.
- 17.2 [] The following WMATA Board member(s), household member(s) or business associate(s) has a financial interest in this firm, in a financial transaction with the Authority to which this firm is a party or prospective party, or in an actual or prospective business relationship with the Authority to which this firm is a party, Include in "Nature of Interest" below, a description of the financial interest and (1) for ownership interests, the value of the interest, the name and address of the firm in which the interest is held, and the total equity or equivalent interest of the firm; and (2) for income, the amount of all income received by the Board member, household member or business associate in the current and preceding fiscal year for services provided, and the name and address of the firm from which the income was received.

Name of Board Member Household Member or	Nature of Interest
Business Associate	

17.3 The certification required by 17.1 and 17.2 above shall be included in all subcontracts. The prime contractor shall furnish copies of certifications to the Contracting Officer and retain a copy for inspection upon his or her request.

Name	Signature
Title	Company
Date	

18. CRIMINAL BACKGROUND SCREENING CERTIFICATION (QUARTERLY)

[NOT APPLICABLE]

The Contractor hereby certifies that:

- **18.1** It will contract with or engage a reputable third-party vendor to conduct, criminal background screenings of all Contractor personnel who will have access to WMATA's customers, WMATA's property, or WMATA's information in connection with this Contract. This requirement also applies to Contractors who engage with the general public on WMATA's behalf.
- **18.2** It will screen for criminal convictions, taking into consideration (1) the nature of the services or work being performed under the contract with particular regard for the individual's access to, and interaction with, WMATA's customers, property, and confidential information; (2) the nature or gravity of the offense or conduct resulting in a criminal conviction; and (3) the time that has lapsed since the conviction and/or completion of the sentence, all Contractor personnel who will have access to WMATA's customers, the general public, WMATA's property, or WMATA's information and who work on this Contract during each calendar year within this Contract's period of performance. The Offeror will provide certification that it conducted these screenings to the Contracting Officer's Technical Representative (COTR) on a quarterly basis, on a form provided.
- **18.3** The Contractor shall submit to the COTR, a list of all employees and agents who will require Contractors' access badges not less than 7 days prior to the date on which access will be required.
- **18.4** The Offeror will determine that all Contractor personnel working on this Contract during the calendar year passed the Contractor's criminal background screening and will be in good standing and otherwise fit to work on this Contract.
- **18.5** The Offeror has not obtained or otherwise been made aware of any information about any Contractor personnel working on this Contract that contradicts or otherwise impacts the Contractor's determination that such persons passed the Contractor's criminal background screening and/or are fit to work on this Contract.
- **18.6** The Contractor will flow this requirement down to all of its subcontractors who will have access to WMATA's customers, the general public, WMATA's property, or WMATA's information within this Contract's period of performance.

Name	Signature
Title Not Appolite	Company Sola
Date	

19. <u>CERTIFICATION REQUIRED FOR ALL SAFETY-SENSITIVE² CONTRACTS.</u>

[NOT APPLICABLE]

- **19.1** By submission of this offer, the offeror represents and certifies that it will comply with the Federal Transit Administration (FTA) regulations, "Prevention of Alcohol Misuse and Prohibited Drug Use in Transit Operations," 49 C.F.R. Part 655, and applicable provisions of the U.S. Department of Transportation (DOT) regulations, "Procedures for Transportation Workplace Drug and Alcohol Testing Programs," 49 C.F.R. Part 40.
- **19.2** Offeror agrees that its employees and agents, including but not limited to, safety-sensitive subcontractors will be enrolled in a drug and alcohol testing program that meets the policy and procedural requirements listed in Appendix A of this document.
- **19.3** Offeror understands that Washington Metropolitan Area Transit Authority (WMATA) will perform oversight during the contract's period of performance to ensure that the successful offeror complies with the DOT/FTA regulations.
- **19.4** Failure to comply with this certification may result in WMATA issuing sanctions and pursuing available contractual remedies.

Name		Signature
Title	Not Amalia	Company Company
Date		

² See the Combined Glossary for a definition of "safety-sensitive."

PRE-AWARD EVALUATION DATA

PROJE	T DESCRIPTION:	
1.	lame of firm	
2.	Address:	
3.] Individual [] Partnership [] Corporation [] Joint Venture	
4.	Date organized	
	State where incorporated or organized	
5.	lames of officers or partners:	
	a	
	b	
	C	
	d	
	е	
	f	
6.	low long has your firm been in business under its present name?	
7.	Attach as Schedule One (1) a list of similar <u>current</u> contracts that demonstrate your firm's technical proficiency, each with contract amount, name of contracting party, character or type of work and percentage of completion.	

8. Attach as Schedule Two (2) a list of similar contracts, each with contract amount, name of contracting party, and character or type of work for similar contracts completed in the last two (2) years.

9. In the last two (2) years has your firm been denied an award where it was the offeror?

If the answer is yes, attach as Schedule Three (3) the full particulars regarding each occurrence.

10. Has your firm failed to complete, in the last two (2) years, any contract on which it was the offeror?

If the answer is yes, attach as Schedule Four (4), the full particulars regarding each occurrence.

- 11. Financial resources available as working capital for the Contract:
 - a. Cash on hand: \$_____
 - b. Sources of credit: _____
- 12. Attach as Schedule Five (5) financial statements and letters from banks regarding credit as required by the "Pre-Award Information" article.
- 13. What percentage of work (Contract amount) does your firm intend performing with its own personnel? %.
- 14. Attach as Schedule Six (6), a list of all principal subcontractors and the percentage and character of work (Contract amount) that each will perform. Principal items of work shall include, but not be limited to, those items listed in the "Pre-Award Information" article.
- 15. If the Contractor or subcontractor is in a joint venture, submit "Pre-Award Evaluation Data" forms for each member of the joint venture.

The above information is confidential and will not be divulged to any unauthorized personnel.

The undersigned certifies to the accuracy of all information.

COMPANY:	
SIGNATURE:	
NAME:	
TITLE:	
DATE:	

TERMS AND CONDITIONS

CHAPTER I – TERMS AND CONDITIONS

1. <u>AGREEMENT</u>

The work to be performed under this Contract may briefly be described as to provide various cable types as stated in the "Price Schedule", including all necessary or incidental work, labor and materials. The Contractor agrees to perform the work in accordance with requirements and terms and conditions hereinafter set forth in this Contract. In consideration for the Contractor's complete, satisfactory and proper performance of the Contract, the Authority agrees to pay to the Contractor, and the Contractor agrees to accept as full compensation, the sums of money set forth in the Price Schedule, including any agreed to economic price adjustment for the option years at the time and in the manner and upon the terms and conditions set forth in this Contract.

2. ARRANGEMENT OF CONTRACTUAL PROVISIONS

For ease of reference, this Contract is divided into chapters, articles (also referred to as "clauses"), paragraphs and subparagraphs. While the chapters and articles are titled, it is understood that both the use of such titles and the manner and overall arrangement of the Contractual provisions are intended solely for the convenience of the parties and are without independent Contractual or legal significance.

3. ORDER OF PRECEDENCE

- (a) Any inconsistency in the Contract shall be resolved by giving precedence to the following order: (a) terms and conditions (b) the specifications or Scope of Work; (c) drawings, if any; (d) other documents, exhibits, and attachments generated by the Authority as part of this Contract; (e) the technical proposal, if any, and other Contractor submissions generated as part of this Contract. In the event of a conflict within or between provisions entitled to equal precedence, the more stringent requirement shall apply.
- (b) Notwithstanding paragraph (a), if this Contract is funded, in whole or part, through the Federal Government, all contract terms mandated for inclusion by the Federal Government shall be deemed to supersede any other conflicting or inconsistent provisions of this Contract.

4. **REQUIREMENTS CONTRACT**

[NOT APPLICABLE]

5. INDEFINITE QUANTITY CONTRACT

- (a) This is an indefinite-quantity Contract for the supplies or services specified, and effective for the period of performance stated in the Price Schedule. The quantities of supplies and/or services specified in the Price Schedule are estimates only and are not purchased by this Contract.
- (b) Delivery or performance shall be made only as the Contracting Officer authorizes through orders made in accordance with the "Ordering" and "Order Limitations" articles. The Contractor shall furnish to the Authority, when and if ordered, the supplies and/or services specified in the Price Schedule up to and including the quantity designated in the Price Schedule as the "maximum." The Authority shall order at least the quantity of supplies and/or services designated in the Price Schedule as the "minimum."
- (c) There is no limit on the number of orders that may be issued other than any limitations imposed by the "Order Limitations" clause. The Authority may issue orders requiring delivery to multiple destinations or performance at multiple locations.
- (d) Any order issued during the effective period of this Contract and not completed within that period shall be completed by the Contractor within the time specified in the order. This Contract and WMATA's Procurement Procedures Manual (PPM) shall govern the parties' rights and obligations regarding that order to the same extent that they would have governed the order had it been completed during the Contract's effective period.

6. <u>ORDERING</u>

- (a) The Contracting Officer shall order any supplies and/or services to be furnished under this Contract by the issuance of delivery orders or task orders. Such orders may be issues throughout the Period of Performance.
- (b) All delivery orders or task orders are subject to the terms and conditions of this Contract. In the event of a conflict between a delivery order or task order and this Contract, this Contract shall control.
- (c) If mailed, a delivery order or task order is considered "issued" when the Authority places the order in the mail. Orders may be issued electronically, if authorized by the Price Schedule.

7. ORDER LIMITATIONS

- (a) *Minimum order*. When the Authority requires supplies and/or services covered by this Contract in an amount <u>less than \$50,000.00</u>, the Authority is not obligated to purchase, nor is the Contractor obligated to furnish those supplies and/or services under this Contract.
- (b) *Maximum order.* The Contractor is not obligated to honor:
 - (1) Any order for a single item in excess of <u>\$4,000,000.00</u>, per category;
 - (2) Any order for a combination of items in excess of <u>\$4,000,000.00</u>, per category;
 - (3) A series of orders from the same ordering office within <u>3</u> days that together call for quantities exceeding the limitations stated above.
 - (4) The Contractor shall honor any order exceeding the maximum order limitations in this clause, unless that order (or orders) is returned to the Contracting Officer within <u>60</u> days after issuance, with written notice stating the Contractor's intent not to ship the item (or items) ordered and the reasons. Upon receiving this notice, the Contracting Officer may acquire the supplies and/or services from another source.

8. AUDIT, AVAILABILITY, AND INSPECTION OF RECORDS- FTA

- (a) Authorized persons. The Contracting Officer and his or her representatives, including representatives of the Authority's governing jurisdictions and any other Federal, state, or local entity providing funding for this Contract and the U.S. Comptroller General shall have access and inspection rights described in this article.
- (b) Examination of costs. The Contractor shall maintain, and the Contracting Officer shall have the right to examine and audit, all records sufficiently to properly reflect all costs incurred or anticipated to be incurred directly or indirectly in performance of this Contract. This right of examination shall include inspection of the Contractor's facilities engaged in performing this Contract at all reasonable times.
- (c) Cost or pricing data. If the Contractor is required to submit cost or pricing data in connection with any pricing action relating to this Contract, the Contracting Officer shall have the right to examine and audit all of the Contractor's records related to: (1) any bid for this Contract, subcontract, or modification; (2) any clarifications of the bid; (3) pricing of this Contract, subcontract or modification; or (4) performance of this Contract, subcontract or modification.
- (d) Availability. The accounts, records and cost information required to be originated under this Contract, and together with all other accounts, records and cost information related to this Contract, shall be maintained and made available by the Contractor and subcontractor(s):
 - (1) At their offices at all reasonable times for inspection, audit, reproduction or such other purposes as the Contracting Officer or by anyone he or she authorizes may require or pursuant to any other provision of this Contract; and
 - (2) Except to the extent otherwise expressly set forth in this Contract, until three (3) years from the date of final payment under this Contract. If the Contract is completely or partially terminated, such records shall be maintained for a period of three (3) years from either the date of any resulting final settlement or the date of final payment, whichever is later. If a pricing adjustment is involved in any dispute or litigation related to this Contract, such records shall be maintained for a period equal to the later of three (3) years from the date of final payment or one (1) year following the final disposition of the dispute or litigation.
- (e) Subcontracts. The Contractor shall insert this article, in all subcontracts that exceed \$100,000.

9. AVAILABILITY OF FUNDS FOR THE NEXT FISCAL YEAR

Funds are not guaranteed for performance under this Contract beyond the current fiscal year that ends on June 30th. The Authority's obligation for performance of this Contract beyond that date is contingent upon the availability of funds from which payment for Contract purposes can be made. The Authority's legal liability for any payment cannot arise for performance under this Contract, until funds are made available to the Contracting Officer for performance and until he or she notifies the Contractor of the availability, in writing. Any option exercised by the Authority that will be performed, in whole or in part, in a subsequent fiscal year is subject to availability of funds in that year and will be governed by the terms of this article.

10. CONTRACTING OFFICER'S TECHNICAL REPRESENTATIVE (COTR)

- (a) The work will be conducted under the Contracting Officer's general directions. Authority will be delegated to the Contracting Officer's Technical Representative (COTR) to take the following actions;
 - (1) Act as the principal point of contact with the Contractor. The COTR will submit a copy of each item of incoming correspondence and a copy of any enclosures to the Contract Administrator (upon request).
 - (2) Approve in writing, the Contractor's progress schedule and submittals when required.
 - (3) Inspect the work for compliance with this Contract.
 - (4) Review and approve invoices and payment estimates. The COTR will forward invoices and receipts to accounting. Bring to the attention of the Contracting Officer any significant discrepancies, or disputes concerning, Contractor invoices or payments. In those cases requiring release of final retained percentages of payment, the COTR will make his or her recommendations to the Contracting Officer in writing.
 - (5) Coordinate correspondence with the Contract Administrator, if its importance significantly impacts the Contractual terms and obligations;
 - (6) Evaluate the Contractor's technical letters and proposals for the Contracting Officer.
 - (7) Advise the Contracting Officer of potential problems that may affect Contract performance.
 - (8) Advise the Contracting Officer whenever the COTR has reason to believe that the Contractual not-to-exceed amount will be exceeded.
 - (9) Prepare the Authority's estimate for proposed Contract modifications. Participate in negotiations for modifications.
 - (10) Receive from the Contractor, monthly, if applicable, DBE/SBLPP status reports and forward them to the DBE/SBE Office, or Office of Equal Employment Opportunity (OEEO) when appropriate; and advise if issue(s) appear that may require investigation.
 - (11) Receive from the Contractor certified payroll reports and prepare a log sheet indicating the following: (1) name of the Contractor and subcontractor; (2) the Contract number; (3) the certified payroll number (number for the payroll for the project starting with the number 1); (4) the time frame of the payroll period (i.e. 1/21/11-2/3/11); (5) the statement of compliance date (first page of the report); and (6) the date the report was received by WMATA;
 - (12) Receive from the Contractor, quarterly, Criminal Background Screening Certifications and forward them to the Contracting Officer. **[N/A]**

- (13) Create a Contractor ID utilizing PeopleSoft HCM.
- (14) Enter personal and job information for contractor directly into PeopleSoft HCM through Manager Self Service. Once the system setup is complete, ensure your contingent worker (contractor) reports to the WMATA Badge Office to obtain the OneBadge ID. [NOT APPLICABLE]
- (15) Maintain a comprehensive file/record of documents and correspondence concerning Contract activities and actions.
- (16) Provide the Contract Administrator with a written notification after all supplies/services have been received with a statement that the COTR is not aware of any open issues that would preclude closeout of the Contract and that the contract it is ready for closeout. The COTR will return the file, containing all records, correspondence, etc., to the Contract Administrator.
- (17) At the close out of the contract, execute a vendor evaluation, which contains a detailed performance evaluation of the contractor. Note that if there are one or more categories in which the contractor is deemed unsatisfactory, these evaluations must be provided to the contractor for comment.
- (18) Provide the Contract Administrator with a written request and requisition to exercise option(s), if any, a minimum of 90 days prior to the time established in the contract for exercise of the option. All request to exercise contract options shall include a completed vendor evaluation, outlining vendor's satisfactory performance.
- (19) **Submit monthly reports to assigned Contracting Officer and Contract Administrator.** Reports shall be timely and accurate.
- (20) **Review Section 18-21 of the PPM** to ensure that you have a good understanding of your delegated duties.
- (21) The COTR may not re-delegate or sub-delegate his or her authority to act on the Contracting Officer's behalf. If, for whatever reason the COTR is unable or unwilling to fulfill his or her responsibilities under this Contract, only the Contracting Officer can designate a new COTR.
- (22) The COTR's name and address will be provided after award.

CHAPTER II – TIME/DELAYS/LIQUIDATED DAMAGES

1. PERIOD OF PERFORMANCE

The period of performance is <u>5</u> years commencing on the date of the "Notice to Proceed" date (NTP).

1 st Year	Base Year	Days – Per Year	2018
	Year 2	365 Days	2019
	Year 3	366 Days	2020 (Leap Year)
	Year 4	365 Days	2021
	Year 5	365 Days	2022

2. <u>OPTIONS-EVALUATION</u> [NOT APPLICABLE]

In awarding this Contract, the Contracting Officer shall evaluate offers for any option quantities or periods contained in a solicitation in accordance with PPM §§ 4-21 through 4-23.

3. OPTIONS-EXERCISE [NOT APPLICABLE]

- (a) When exercising an option, the Contracting Officer shall provide written notice to the Contractor within a reasonable amount of time before exercising the option.
- (b) When the Contract provides for economic price adjustment and the Contractor requests a revision of the price, the Contracting Officer shall determine the effect of the adjustment on prices under the option before the option is exercised.
- (c) In accordance with PPM § 4-23, the Contracting Officer may exercise options only after determining that—
 - (1) Funds are available;
 - (2) The requirement covered by the option fulfills an existing WMATA need;
 - (3) The exercise of the option is the most advantageous method of fulfilling WMATA's needs, when price and other factors are considered.
 - (4) Contractor is not listed in the System for Award Management's Exclusions (See <u>www.sam.gov</u>).
 - (5) The Contractor's past performance evaluations on other Contract actions have been considered; and
 - (6) The Contractor's performance on this Contract has been acceptable in that it received satisfactory ratings.

CHAPTER II - TIME/DELAYS/LIQUIDATED DAMAGES

1. PERIOD OF PERFORMANCE

The period of performance is <u>365</u> days commencing on the date of the "Notice to Proceed" date (NTP).

The Authority has the unilateral right to extend this Contract by exercising up to four (4) 12-months each option periods subject to all terms and conditions stated herein (see below).

1 st Year	Base Year	Days – Per Year	2018
2 nd Year	Option Year 1	365 Days	2019
3 rd Year	Option Year 2	366 Days	2020 (Leap Year)
4 th Year	Option Year 3	365 Days	2021
5 th Year	Option Year 4	365 Days	2022

The Authority may exercise the option(s) (if any) by written notice to the Contractor prior to commencement of the option period. The Contracting Officer shall give the Contractor a preliminary notice of its intent to exercise an option within a reasonable time before the Contract expires. The preliminary notice does not commit the Authority to exercise an option.

2. OPTIONS- EVALUATION

In awarding this Contract, the Contracting Office on a e-luate offers for any option quantities or periods contained in a clinical office or a corda of vith PPM §§ 4-21 through 4-23.

3. OPTIONS-EXERC

(a) When exercising an option, the Contraction of filler that provide written notice to the Contractor within a rector of a long to the before exercising the option.

In the extract provides for economic price adjustment and the Contractor extracts a revision of the price, the Contracting Officer shall determine the effect of the adjustment on prices under the option before the option is exercised.

- (c) In accordance with PPM § 4-23, the Contracting Officer may exercise options only after determining that—
 - (1) Funds are available;
 - (2) The requirement covered by the option fulfills an existing WMATA need;
 - (3) The exercise of the option is the most advantageous method of fulfilling WMATA's needs, when price and other factors are considered.
 - (4) Contractor is not listed in the System for Award Management's Exclusions (See <u>www.sam.gov</u>).
 - (5) The Contractor's past performance evaluations on other Contract actions have been considered; and
 - (6) The Contractor's performance on this Contract has been acceptable in that it received satisfactory ratings.

- (d) The Contracting Officer, after considering price and other factors, shall make the determination on the basis of one (1) of the following:
 - (1) A new solicitation fails to produce a better price or a more advantageous offer than that offered by the option. If it is anticipated that the best price available is the option price or that this is the more advantageous offer, the Contracting Officer should not use this method of testing the market.
 - (2) An informal analysis of prices or an examination of the market indicates that the option price is better than prices available in the market or that the option is the more advantageous offer.
 - (3) The time between the award of the Contract containing the option and the exercise of the option is so short that it indicates the option price is the lowest price obtainable or the more advantageous offer. The Contracting Officer shall take into consideration such factors as market stability and comparison of the time since award with the usual duration of Contracts for such supplies or services.
- (e) The determination of other factors under subparagraph (d):
 - (1) Should take into account WMATA's need for continuity of operations and potential costs of disrupting operations; and
 - (2) May consider the effect on DBEs.
- (f) Before exercising an option, the Contracting Officer shall make a written determination for the Contract file that the exercise is in accordance with the terms of the option, and the requirements of this clause. To satisfy requirements for full and open competition, the option must have been evaluated as part of the initial competition and be exercisable at an amount specified in or reasonably determinable from the terms of the terms of the option, such as:
 - (1) A specific dollar and ALL G2 D
 - (2) An amount to be determined by applying provisions (or a formula) provided in the basic contract, but not including renegotiation of the price for work in a fixed-price type contract;
 - (3) In the case of a cost-type contract, if—
 - (a) The option contains a fixed or maximum fee; or $\sqrt{}$
 - (b) The fixed or maximum fee amount is determinable by *applying* a formula contained in the contract;
 - (3) A specific price that is subject to an economic price adjustment provision; or
 - (5) A specific price that is subject to change as the result of changes to prevailing labor rates provided by the U.S. Secretary of Labor.
- (g) The Contract modification or other written document that notifies the Contractor of the exercise of the option shall cite this article as authority.

4. <u>OPTION FOR INCREASED OR DECREASED QUANTITIES OF SUPPLIES</u> [NOT APPLICABLE]

5. OPTIONS TO EXTEND SERVICES

[NOT APPLICABLE]

6. OPTION TO EXTEND THE TERM OF THE CONTRACT

- (a) WMATA may extend the term of this Contract by written notice to the Contractor within a reasonable amount of time exercising the option, provided that WMATA gives the Contractor a preliminary notice of its intent to extend within a reasonable amount of time before the Contract expires. The preliminary notice does not commit WMATA to the extension.
- (b) If WMATA exercises this option, the extended Contract shall include this option clause.
- (c) The total duration of this Contract, including any options under this clause shall be reasonable as determined by the Contracting Officer in consultation with counsel (COUN).

7. OPTIONS EXERCISED OUT OF SEQUENCE

WMATA may exercise options at any time, including during the base period, and in any sequence, even if it varies from the sequence stated in the Price Schedule. The Contractor may be entitled to an equitable adjustment in the Contract price, if exercising the option out of sequence causes any undue delay in performance of this Contract. If options are extended during the base period or out of sequence, any previously agreed to economic price adjustment for exercise of the option may not apply, at the Contracting Officer's discretion.

8. <u>LIQUIDATED DAMAGES FOR DELAY</u>

[NOT APPLICABLE]

9. EXTENSIONS OF TIME/FORCE MAJEURE

- (a) For purposes of this clause, the term "force majeure" shall mean an unforeseen event or circumstance, beyond the control of, and not occasioned by the fault or negligence of, the Contractor or the Authority, that gives rise to a delay in the progress of the Contract, including, without limitation, acts of God, acts of war or insurrection, unusually severe weather, fires, floods, strikes, freight embargoes or other events or circumstances of like nature.
- (b) Notwithstanding the provisions of the "Liquidated Damages" article of this Contract (if applicable), if the Contractor is delayed at any time during the performance of this Contract, by the Authority's negligence or by a force majeure event, then the Contracting Officer shall extend the time for completion and/or the affected delivery date(s) in the following circumstances:
 - (1) The cause of the delay arises after the award of the Contract and neither was nor could have been anticipated by the Contractor by reasonable investigation before such award;
 - (2) The Contractor demonstrates to the Contracting Officer that the completion of the work and/or affected deliveries will be actually and necessarily delayed;
 - (3) The delay cannot be avoided or mitigated by the exercise of all reasonable precautions, efforts and measures available to the Contractor, whether before or after the cause of delay; and
 - (4) The Contractor makes a written request and provides other information to the Contracting Officer, as described below.
- (c) If the Contractor will be delayed at any time or for any period by two (2) or more of the above-mentioned causes, the Contractor shall not be entitled to a separate extension for each cause, but shall be entitled to only one (1) period of extension for the cumulative effects of the delay.
- (d) The Contracting Officer may rescind or shorten any extension previously granted, if he or she subsequently determines that any information that the Contractor provided in support of a request for an extension of time was erroneous, if, accurate information would have resulted in a denial of the request for an excusable delay. The Contracting Officer will not rescind or shorten any extension previously granted, if the Contractor acted in reliance upon it and if, in his or her judgment, such extension was based on information that the Contractor submitted in good faith, even if it is later determined to be erroneous.
- (e) The request for an extension of time shall be made within ten (10) days after the Contractor knows or should know of any cause for which it may claim an excusable delay. The Contractor's request shall contain any potential basis for an extension of time, describing, as fully as possible, the nature and projected duration of the delay and its effect on the completion of the work identified in the request. Within thirty (30) days after his or her receipt of all such information, the Contracting Officer shall advise the Contractor of his or her decision on such requested extension.

Where it is not reasonably practicable for the Contracting Officer to render his or her decision in the thirty (30) day period, he or she shall, prior to the expiration of such period, advise the Contractor that he or she will require additional time and state the approximate date upon which he or she expects to render a decision.

(f) In no event shall a delay in performance of the Contract occasioned solely by a force majeure event or the acts or omissions of any party outside of the Contractor's control be the basis for a termination for default pursuant to this Contract. In no event shall a subcontractor at any tier be deemed a party outside of the Contractor's control.

10. <u>THE AUTHORITY'S DELAY</u>

- (a) If the performance of all or any part of this Contract is delayed in a material manner or extent by the Authority's acts or omissions that are not expressly or impliedly authorized by this Contract or by applicable provisions of law, the Contracting Officer shall make an adjustment (excluding profit) for any increase in the cost of performance of this Contract caused by such delay and shall modify the Contract, in writing. The Contracting Officer shall make an adjustment to the delivery or performance dates and to any other Contractual provision, if such delay or interruption affected Contract compliance. The Contracting Officer shall make no adjustment under this Contract for any delay or interruption, if performance was or could have been delayed by any other cause, including, without limitation: (i) the fault or negligence of the Contractor or any subcontractor; (ii) an act constituting a force majeure event pursuant to this Contract; or (iii) any other cause for which an adjustment is provided under any other article of this Contract, at law or in equity.
- (b) An adjustment pursuant to paragraph (a) shall not be allowed:
 - (1) For any costs incurred more than twenty (20) days before the Contractor notifies the Contracting Officer, in writing, of the delay.
 - (2) Unless the claim, in a sum certain, is asserted in writing as soon as practicable after the termination of the delay. In no event, shall a Contractor assert a delay claim later than thirty (30) days after its termination. The delay claim shall be accompanied by appropriate documentation, specifically supporting the nature and extent of the claimed impact upon the cost and/or time required for performance. In any instance where it is not possible for the Contractor to fully project such impact within the thirty (30) day period, it shall support the claim with such documentation as is then reasonably available. along with a statement of the anticipated time frame when the Contractor expects to provide the additional materials. The Contracting Officer shall maintain the right throughout the process to request such additional materials as he or she shall reasonably require in consideration of the claim and shall be under no obligation to conclude his or her consideration of the claim prior to review of all relevant materials. Any adjustment to the Contract price pursuant this article must be determined prior to final payment under this Contract.

11. NOTICE TO THE AUTHORITY OF LABOR DISPUTES

- (a) Whenever the Contractor has knowledge that any actual or potential labor dispute is delaying or threatens to delay the timely performance of this Contract, the Contractor shall immediately give notice thereof, including all relevant information with respect thereto, to the Contracting Officer.
- (b) The Contractor agrees to insert the substance of this article, including this paragraph
 (b), in any subcontract hereunder if a labor dispute may delay the timely performance of this Contract.

12. NOTIFICATION OF BANKRUPTCY OR INSOLVENCY

In the event the Contractor becomes insolvent or files or has filed against it a petition in bankruptcy, whether voluntary or involuntary, the Contractor agrees to furnish, by certified mail or electronic commerce method authorized by the Contract, written notification of such to the Contracting Officer. This notification shall be furnished as soon as possible, but in no event more than ten (10) days of the initiation of the proceedings relating to bankruptcy filing. This notification shall include the date on which the bankruptcy petition was filed, the identity of the court in which the bankruptcy petition was filed, and a listing of all WMATA Contract numbers for all WMATA contracts against which final payment has not been made. This obligation remains in effect until final payment under this Contract.

CHAPTER III – ACCEPTANCE/INSPECTIONS/DEFICIENCIES

1. **INSPECTION OF SERVICES**

[NOT APPLICABLE]

2. INSPECTION OF SUPPLIES

- (a) The Contractor shall provide and maintain an inspection system acceptable to the Authority covering supplies under this Contract and shall tender to the Authority for acceptance only supplies that have been inspected in accordance with the inspection system and that the Contractor determines to be in conformity with this Contract's requirements. As part of the system, the Contractor shall prepare records evidencing the nature and result of all inspections. These records shall be made available to the Authority during the term of the Contract and thereafter in accordance with the "Audit and Inspection of Records" article of this Contract. The Authority may perform reviews and evaluations as reasonably necessary to ascertain compliance with this article. These reviews and evaluations shall be conducted in a manner that will not unduly delay the Contract. Reviews, whether exercised or not, do not relieve the Contractor of its obligations under this Contract.
- (b) The Authority has the right to inspect and test all supplies under this Contract, to the extent practicable, at all places and times, including during manufacturing, and before acceptance. The Authority shall perform inspections and tests in a manner that will not unduly delay the Contract. The Authority assumes no Contractual obligation to perform any inspection and/or test nor shall the Authority's failure to perform any inspection and/ or test relieve the Contractor of any obligation under this Contract.
- (c) If the Authority performs inspection(s) or test(s) on the Contractor's or subcontractor's premises, the Contractor shall furnish, and shall require subcontractors to furnish, without additional cost, all reasonable facilities and assistance for the safe and convenient performance of these inspections or tests.
- (d) When supplies are not ready at the time specified for inspection or testing, the Contracting Officer may charge to the Contractor for any additional associated costs. The Contracting Officer may also charge the Contractor for any additional costs of inspection or testing when prior rejection makes re-inspection or retesting necessary.

3. <u>ACCEPTANCE OF SUPPLIES</u>

- (a) The Authority shall accept or reject tendered supplies as promptly as practicable after delivery, unless otherwise provided in this Contract. The Authority's failure to inspect and/or accept or reject the supplies shall not relieve the Contractor from responsibility, nor impose liability upon the Authority, for nonconforming supplies.
- (b) The Authority's acceptance shall be deemed conclusive, except for latent defects, fraud, willful misconduct, gross mistakes amounting to fraud or as otherwise provided in this Contract. In such instances, the Authority, in addition to any other rights and remedies it has under this Contract, at law or in equity, shall have the right:
 - (1) To direct the Contractor, at no increase in Contract price, to correct or replace the defective or nonconforming supplies at the original point of delivery or, if the Contracting Officer determines, at the Contractor's facility, in accordance with a reasonable delivery schedule as may be agreed upon between the parties. The Contracting Officer may reduce the Contract price, if the Contractor fails to meet such delivery schedule; or
 - (2) Within a reasonable time after the Contractor's receipt of a Notice of Defects or Nonconformance, the Contracting Officer may reduce the Contract price, as is equitable under the circumstances, if he or she elects not to require correction or replacement. When supplies are returned to the Contractor, the Contractor shall bear the costs of transportation.

4. <u>NEW MATERIAL [SUPPLIES]</u>

Unless this Contract specifies otherwise, the Contractor represents that any supplies and components to be provided under this Contract are new (not used or reconditioned, and not of such age or so deteriorated as to impair their usefulness or safety). If at any time during the performance of this Contract, the Contractor believes that furnishing supplies or components that are not new is in the Authority's best interests, the Contractor shall notify the Contracting Officer immediately in writing. The Contractor's notice shall include the reasons for the request, along with any proposed price reduction, that the Authority may take if the Contracting Officer agrees to authorize such supplies or components. The Contracting Officer's authorization to use such supplies or components shall be final and binding and not subject to further review pursuant to the "Disputes" article of this Contract or otherwise.

5. WARRANTY OF SUPPLIES

(a) All workmanship, parts and materials furnished for this Contract shall be unconditionally warranted against failures or defects for the duration of the manufacturer's warranty or extended warranty, if one applies. If no manufacturer's warranty applies, then the Contractor shall provide a warranty for a period of one (1) year after the Authority accepts them or places them in service, whichever is earlier. The Contractor shall accept the Authority's records regarding the date the item was placed in service.

The Vendor shall honor extended warranties provided by the manufacturer.

- (b) In the event that any work covered by the warranty provisions fails during the warranty period, the Contractor shall repair or replace the work within three (3) days without cost or expense to the Authority.
- (c) Should the Contractor shall fail to repair or replace any part or do any work in accordance with the terms of this warranty, or if immediate replacement or work is necessary to maintain operations, the Authority shall have the right to cause such replacement to be made, utilizing its own forces and/or those of third parties as the Authority shall reasonably deem appropriate, at the Contractor's expense.
- (d) Each piece of equipment, component or part thereof that the Contractor replaces, repairs, adjusts or services in any manner under the terms of this warranty during the warranty period shall be reported to the Contracting Officer on the Authority's forms. Each report shall indicate in detail all repairs, adjustments and servicing to each and every component, unit or part thereof.
- (e) Any warranty work shall be accomplished with minimum disruption to the Authority's operations and to its maintenance and service facilities. The Authority shall at its sole discretion determine the availability of facilities for warranty work.
- (f) The Contractor shall make adequate service facilities available, along with spare parts, for all the items under warranty. Trained technical service personnel shall be available to the Authority sufficient to meet the Contractor's warranty obligations.
 - (1) The Contractor shall provide field service representatives who are competent and fully qualified in the maintenance and operation of the warrantied items. These field service representatives shall assist the Authority in overcoming any difficulties in the operation or maintenance of the warrantied items. They shall further serve as the Contractor's on-site representatives for any component failure claims or warranty claims under this Contract.
 - (2) During the warranty period, a field service representative shall be available within twenty four (24) hours.
- (g) The Authority's rights set forth in this article shall be in addition to those set forth elsewhere in this Contract or otherwise at law or in equity.

6. WARRANTY OF SERVICES

[NOT APPLICABLE]

7. <u>CORRECTION OF DEFICIENCIES</u>

- (a) The Contractor must replace materials or correct workmanship not conforming to the Contract's requirements at no additional cost to WMATA. In addition, the Contractor is subject to any liquidated damages specified in this Contract or actual damages incurred by WMATA. If the Contractor fails to correct deficiencies, the Contracting Officer, may take specific action as follows:
 - (1) Replace or correct the item or work at the Contractor's expense. This may be accomplished by award of a new contract or by use of WMATA's own resources.
 - (2) Accept the items with a reduction in price. This action will be accomplished by formal modification to this Contract. The reduced price will be based upon the reasonable value of the item, considering the possible cost of correcting the item.
 - (3) Terminate this Contract for default. If the item or work must be re-procured, the Contractor is normally liable for excess costs incurred by WMATA in accordance with the "Termination for Default" article of this Contract.

8. FIRST ARTICLE INSPECTION

Please also see Appendix "A" – Technical Specifications

- (a) The Contractor shall deliver one (1) unit to the Authority for first article (preproduction) tests. The shipping documentation shall contain this Contract number and the lot/item identification number. The characteristics for the first article inspection and its testing requirements are stated in the technical specifications/ Scope of Work.
- (b) Within ten (10) days after the Authority receives the first article, the Contracting Officer shall notify the Contractor, in writing, of the conditional approval, approval, or disapproval of the first article. The notice of conditional approval or approval shall not relieve the Contractor from complying with all requirements of the specifications and all other terms and conditions of this Contract. A notice of conditional approval shall state any further action required of the Contractor. A notice of disapproval shall cite the reasons for the disapproval.
- (c) If the first article is disapproved, the Contractor, upon the Authority's request, shall submit an additional first article for testing. After each request, the Contractor shall make any necessary modifications, or repairs to the first article or select another first article for testing. The Contractor shall pay for all costs related to these tests. The Contractor shall furnish any additional first article under this Contract within the time specified by the Authority. The Contracting Officer may make an equitable adjustment to the Contract for any schedule extension related to these tests, at no cost to the Authority.

- (d) Unless otherwise provided in the Contract, the Contractor:
 - (1) May deliver the approved first article as a part of the Contract quantity, if it meets all of the Contract's requirements for acceptance and was not damaged or impaired in testing; and
 - (2) Shall remove and dispose of any first article from the Authority's test facility at the Contractor's expense.
- (e) The Contractor is responsible for providing operating and maintenance instructions, spare parts support, and repairs to the first article during any first article test.
- (f) The Authority will inspect the first article in accordance with the Contract's requirements. A written report will be forwarded to the Contractor in accordance with (b) above.

9. <u>F.O.B. DESTINATION</u>

- (a) Unless otherwise specified, the Contractor shall furnish all supplies to be delivered under this Contract "F.O.B. Destination". As used herein, "F.O.B. Destination" means:
 - (1) Free of expense to WMATA on board the carrier's conveyance, at a specified delivery point where WMATA's facility (plant, warehouse, store, lot, or other location to which shipment can be made) is located; and
 - (2) Supplies shall be delivered to WMATA's warehouse unloading platform, or receiving dock, at the Contractor's expense. WMATA shall not be liable for any delivery, storage, demurrage, accessorial, or other charges involved before the actual delivery of the supplies to the destination, unless such charges are caused by WMATA's acts or omissions, acting in its Contractual capacity. If the Contractor uses a rail carrier or freight forwarder for less than full carload shipments, the Contractor shall assure that the carrier will furnish tailgate delivery, if transfer to truck is required to complete delivery to WMATA.
- (b) The Contractor shall:
 - (1) Pack and mark the shipment to comply with this Contract's specifications;
 - (2) In the absence of specifications, prepare the shipment in conformance with carrier requirements;
 - (3) Prepare and distribute commercial bills of lading;
 - (4) Deliver the shipment in good order and condition to the delivery point specified in the Contract;
 - (5) Be responsible for any loss of and/or damage to the goods occurring before receipt of the shipment by WMATA at the delivery point specified in the Contract;
 - (6) Furnish a delivery schedule and designate the mode of delivering carrier; and
 - (7) Pay and bear all charges to the specified point of delivery.

10. <u>QUALITY ASSURANCE/QUALITY CONTROL</u>

The Contractor shall be responsible for quality assurance and for assuring that the work conforms to the requirements of this Contract. The Contractor shall maintain an effective and economical quality control program planned and developed in conjunction with other Contractor functions necessary to satisfy this Contract's requirements. The quality control program shall establish and implement procedures to ensure that only acceptable supplies or services are tendered to the Authority for acceptance, and shall demonstrate both recognition of the Contract's quality requirements and an organized approach to satisfying them. The program shall ensure that quality requirements are satisfied throughout all phases of Contract performance, including, as applicable, design development, purchasing, fabrication, processing, assembly, inspection, testing, packaging, delivery, and storage and shall provide for the early detection of actual or potential deficiencies, trends, or conditions that could result in unsatisfactory quality.

CHAPTER IV—CHANGES/ PRICING ADJUSTMENTS

1. CHANGE ORDERS

- (a) The Contracting Officer may at any time, by a written order, and without notice to the sureties, if any, direct and implement change orders, within the general scope of this Contract, including but not limited to one or more of the following:
 - (1) Nature and/or extent of services to be performed or supplies to be furnished;
 - (2) Time of performance (i.e., hours of the day, days of the week, etc.); or
 - (3) Place of performance of the services or delivery of the supplies.
- (b) If, in the Contracting Officer's judgment, any change causes an increase or decrease in the cost of, or the time required for, the performance of any part of this Contract, whether or not directly changed by the order, he or she shall make an equitable adjustment to the Contract price, the delivery schedule, or both, and shall modify the Contract, in writing, accordingly.
- In any instance where the Contractor asserts a right to an adjustment in the Contract (c) price or time required for performance as the result of a change, it must submit a written claim advising the Authority within thirty (30) days from the date of receipt of the written order directing the change. The claim shall be accompanied by appropriate documentation, supporting the nature and extent of the claimed impact upon the Contract price and/or time required for performance. In any instance where it is not reasonably practicable fully project such impact within the thirty (30) day period, the Contractor shall accompany its claim with such supporting documentation as is then reasonably available as along with a statement of the anticipated time frame when the Contractor expects to provide the additional materials. The Contracting Officer shall maintain the right throughout the process to request such additional materials as he or she shall reasonably require in consideration of the claim and shall be under no obligation to conclude his or her consideration of the claim prior to review of all relevant materials. Any adjustment to the Contract price pursuant to this article must be agreed upon or otherwise determined prior to final payment.
- (d) If the Contractor's proposed price adjustment includes the cost of property rendered obsolete or excess by the change, the Contracting Officer shall have the right to prescribe the manner of property disposition.
- (e) Disagreement regarding either party's right to any adjustment in price or time for performance as the result of a change implemented pursuant to this article shall be subject to adjudication in accordance with the "Disputes" article of this Contract. Notwithstanding the pendency of any such dispute, the Contractor expressly acknowledges that it shall remain fully obligated to perform the Contract as so changed.

- (f) The Contractor shall promptly notify the Contracting Officer of matters, whether implemented as change orders or otherwise, that the Contractor believes may reasonably result in either an increase or decrease in the Contract price or the time required for performance of any part of the Contract and shall take action as the Contracting Officer directs. The Contractor's failure to provide such notification shall constitute a waiver of its right to seek an adjustment in the Contract price or time required for such performance.
- (g) In no event shall the Contractor be entitled to payment for change orders, additional or extra supplies or services or other modifications to this Contract, unless the Contracting Officer authorizes, it in writing.

2. PRICING OF ADJUSTMENTS

- (a) The parties agree that, notwithstanding any interpretation of contract cost principles to the contrary, the Authority will not be liable for interest, however represented, on or as a part of any claim, request, proposal or adjustment, including equitable adjustments, whether it arises under the Contract or otherwise.
- (b) As part of its proposal for any Contract modification requiring a price adjustment in excess of \$100,000, the Contractor shall submit to the Contracting Officer, cost or pricing data under the conditions described in this paragraph and certify that, to the best of its knowledge and belief, the cost or pricing data submitted is accurate, complete and current as of the date submitted. At the Contracting Officer's discretion, the Contractor, may be required to submit cost or pricing data for price adjustments less than \$100,000.
- (c) The Contractor shall ensure that this article is included in all subcontracts at any tier, if the value of the subcontracted work exceeds \$100,000.

3. ACCOUNTING AND RECORD KEEPING FOR ADJUSTMENTS

- (a) *Applicability*. This article shall apply to any adjustment in the Contract price initiated by the Contractor or the Authority.
- (b) Forward Price Adjustments. Unless waived in writing, the Contractor shall furnish to the Contracting Officer, a proposed price adjustment in advance of performance of any work for which the price adjustment is requested. The Contractor shall generate such records as are necessary to substantiate all elements of the proposed adjustment, which records shall be specifically segregated and identified in the Contractor's accounting system as being applicable to the pricing adjustment request.

March 5, 2018

- (c) Post Price Adjustments. This paragraph shall be applicable to price adjustments that either (i) are expected to exceed \$50,000; or (ii) arise in connection with a Contract with a base sum in excess of \$1,000,000. In addition to the records required pursuant to paragraph (b) above, if pricing of an adjustment under this Contract is not agreed upon between the parties prior to the commencement of work for which the pricing adjustment is requested, the Contractor and any subcontractor engaged in work for which the pricing adjustment is requested, shall maintain accounts and original cost records specifically segregated and identified by job order or other appropriate accounting categories that the Contracting Officer approves for all incurred, segregable costs related to the work for which the pricing adjustment is requested. The Contractor shall maintain accounts and records that segregate and account for the costs of all work associated with that part of the Contract for which the pricing adjustment is requested. The Contractor shall allocate the costs so accumulated between: (1) work required under the base Contract; (2) work requested to be reimbursed under the pricing adjustment; and (3) work claimed or determined to be related to other actual or proposed adjustments, including but not limited to, changes orders, differing site conditions, and the like. The accounts and records so established shall accumulate such costs under logical costs groups, such as material, labor, equipment, subcontracts, field overhead and the like. The Contractor shall record these costs on a form approved by the Contracting Officer.
- (e) Access to Records. As a condition to the Authority's obligation to consider any claim for a potential price adjustment under any provision of this Contract, the Contractor shall grant the Authority access to review and ascertain the validity of the accounting records being maintained for segregation of costs, including base cost records, and to audit any such costs as the Contracting Officer deems appropriate.
- (f) Limitation on Price Adjustments. If the Contractor or any subcontractor fails to generate, maintain, or make available any records required under this Contract, in addition to any rights to which the Authority may be entitled, the Contracting Officer shall determine whether such failure is willful, deliberate or otherwise precipitated by the Contractor's bad faith, in which case the Contractor shall not be entitled to any price adjustment for the work in question. Where the Contracting Officer determines that the failure was not the result of the Contractor's bad faith, he or she shall determine the reasonable direct costs of the work for which records are not available, and add a single mark-up for indirect expenses not to exceed ten percent (10%) of the direct costs based on:
 - (1) An audit of the Contractor's or subcontractor's records made available to the Authority; and/or
 - (2) The Authority's estimate as the Contracting Officer adopts or modifies
- (g) In no event shall the Contractor and/or subcontractor be allowed any profit on claimed work for which records are not made available in accordance with its obligations under this Contract.
- (h) *Flow-down clause*. The Contractor shall ensure the inclusion of this article in all subcontracts issued under this Contract, modified as necessary, for proper identification of the contracting parties and the Contracting Officer.

CHAPTER V – INVOICES/PAYMENTS/ DEDUCTIONS

1. BILLING AND PAYMENT

- (a) The Authority shall pay and the Contractor shall accept the amounts set forth in the Price Schedule as full compensation for all costs and expenses of completing the this Contract, including, but not limited to, all labor and material required to be furnished under this Contract, all overhead, expenses, fees and profits including the cost of providing storage yards or facilities; all risks and obligations set forth in this Contract; any applicable fees or taxes; and all expenses due to any unforeseen difficulties encountered in the prosecution of the work.
- (b) Payments will be made following acceptance of the services or supplies to be provided under this Contract and after receipt and acceptance of a properly completed invoice. All invoices shall be sent directly to the Contracting Officer's Technical Representative (COTR); unless specified otherwise.

Invoices shall be prepared and submitted in duplicate, sequentially numbered and contain the date, contract order number, item part number, description of product, quantity, unit prices, date of delivery, delivery location, DBE report and extended totals.

WMATA will accept the submittal of invoices in one of the following methods:

- (1) Email: Invoices may be submitted through email at: <u>apinvoice@wmata.com</u>. Please submit one (1) invoice and supporting documentation per PDF attachment. You may submit more than one PDF attachment per email.
- (2) Fax: Invoices may be submitted via the following number: 1-866-534-9063. Please submit one (1) invoice and all supporting documentation for this invoice per fax.
- (3) Regular Mail: Invoices may be submitted via U.S. Postal Service to the following address:

WMATA-Accounts Payable PO Box 1910 Beltsville, MD 20704-1910

Note: This address is only for vendor invoices. Correspondence should not be sent to this address.

- (c) Invoices shall contain the vendor's name, a unique invoice number for each shipment or service, invoice date, payment terms, total invoice amount, "remit to" address, purchase order number, freight terms, description of each item being invoiced, quantity, unit item cost, extended cost by item, total freight/handling costs, and contact name and email address. Final invoices must clearly be marked "Final" and cite the amount of this Contract, amount previously paid, and the balance due.
- (d) The Authority shall remit payment, generally within thirty (30) days of its receipt and acceptance of an invoice satisfying the requirements of paragraphs (b) and (c), at the prices stipulated in the Contract for supplies delivered and accepted or services rendered and accepted, less any applicable deductions.

 WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

 Contract No.:
 FQ18050
 SUPPLY AND SERVICE CONTRACT (IDIQ)
 Mail

March 5, 2018

2. PRICE REDUCTION FOR DEFECTIVE COST OR PRICING DATA – MODIFICATIONS

If the Contracting Officer determines that any price, including profit or fee, previously negotiated in connection with any modification to this Contract involving changes in cost plus applicable profit in excess of \$100,000 was based upon the Contractor's or subcontractor's cost or pricing data that was not complete, accurate or current, such that the amount the Authority paid to the Contractor for such price adjustment was greater than the Contractor would have been entitled to, based upon accurate and complete data, the Authority shall be entitled to an adjustment in an amount equal to such overpayment. The Authority's rights hereunder shall be in addition to any other rights it may have under this Contract, at law or in equity.

3. SUBCONTRACTOR PAYMENTS

- (a) The Contractor shall, under this Contract, establish procedures to ensure timely payment of amounts due pursuant to the terms of its subcontracts. The Contractor shall pay each subcontractor for satisfactory performance of its contract, or any billable portion thereof, no later than ten (10) days from the date of the Contractor's receipt of payment from the Authority for work by that subcontractor. The Contractor shall also release, any retention withheld from the subcontractor within ten (10) days of satisfactory completion of all work required by that subcontractor.
- (b) The Contractor shall certify on each payment request to the Authority that payment has been or will be made to all subcontractors in accordance with paragraph (a) above. The Contractor shall notify the Contracting Officer with each payment request, of any situation where scheduled subcontractor payments have not been made.
- (c) In the event of a claim by any subcontractor that the Contractor has failed to comply with the terms of this article, the Contractor agrees to fully cooperate in any Authority investigation, and, if deemed appropriate by the Authority, to implement appropriate remedial measures to ensure future compliance.
- (d) The Contractor agrees that the Contracting Officer may provide information that he or she deems appropriate in response to inquiries from subcontractors seeking to determine the status of the Authority's payments to the Contractor.
- (e) Nothing contained in this article or elsewhere in this Contract shall create a Contractual relationship between the Authority and any subcontractor, shall make the subcontractor an intended beneficiary of this Contract or shall alter or affect traditional concepts of privity of contract.

4. GARNISHMENT OF PAYMENTS

Payments under this Contract shall be subject to any garnishment, attachment orders, and/ or levies issued pursuant to the laws of the United States, Maryland, Virginia, and the District of Columbia.

CHAPTER VI - CONTRACT TERMINATION/STOP WORK ORDERS/DISPUTES

1. STOP WORK ORDERS

- (a) The Contracting Officer may, at any time, by written order to the Contractor, require the Contractor to stop all, or any part of the work for a period of up to ninety (90) days after the order is delivered to the Contractor, and for any further period to which the parties may agree. The order shall be specifically identified as a "Stop Work Order" ("SWO") issued under this article. Upon receipt of the SWO, the Contractor shall immediately comply with its terms and take all reasonable steps to minimize the incurrence of costs allocable to the work covered by the SWO during the period of work stoppage. Within a period of ninety (90) days after an SWO is delivered to the Contractor, or within any extension of that period to which the parties agree, the Contracting Officer shall either:
 - (1) Cancel the SWO; or
 - (2) Terminate the work covered by the SWO as provided in this Contract, as appropriate.
- (b) If a SWO is cancelled or expires, the Contractor shall resume work. The Contracting Officer shall make an equitable adjustment to the delivery schedule or Contract price, or both, and shall modify the Contract in writing if, in his or her judgment:
 - (1) The SWO results in an increase in the time required for, or in the Contractor's cost properly allocable to, the performance of any part of this Contract; and
 - (2) The Contractor submits a written claim for such adjustment within thirty (30) days after the end of the period of work stoppage. At the Contracting Officer's discretion, the Authority may act upon any claim submitted at any time before final payment under this Contract.
- (c) If an SWO is not cancelled and the work covered by the Contract is terminated for the convenience of the Authority, the Contracting Officer shall allow reasonable costs, if any, resulting from the SWO in arriving at the termination settlement pursuant this Contract.

2. <u>TERMINATION FOR DEFAULT- FTA</u>

- (a) The Contractor shall be in default if it commits a breach of any of its obligations under this Contract deemed material by the Contracting Officer. In addition to those instances specifically referred to in this Contract, the Contractor shall be in default in the following circumstances:
 - (1) It fails to begin, or abandons, the work of the Contract in accordance with the contractual requirements;
 - (2) It fails to deliver the supplies or perform the services within the time specified in this Contract or any extension that the Contracting Officer approves;
 - (3) It fails to make progress in a manner that the Contracting Officer deems unreasonable so as to endanger performance of this Contract; or
 - (4) In the view of the Contracting Officer, the Contractor is willfully violating this Contract or is not executing it reasonably and in good faith.
- (b) In the event the Contractor's material breach pursuant to paragraph (a), the Contracting Officer is authorized to direct a written notice (a "Notice to Cure") to the Contractor, specifying the nature of the breach and stating that the Contractor has ten (10) days to cure the breach or such additional time as the Contracting Officer authorizes. If the Contractor fails to cure the breach in the time specified in the Notice to Cure, the Contracting Officer may terminate this Contract, in whole or designated part, for default after providing written notice to the Contractor.
- (c) Upon receipt of a "Notice of Default," the Contractor shall immediately cease performance of the work so terminated. The Authority shall have the right to take any action necessary to complete the work, including performing the work itself, or contracting with another party to do so. In the event the work is completed directly by the Authority or by a third party, the Contractor shall be liable for the additional costs and expenses necessary to complete the work, including, without limitation, labor, material costs, plant costs, tooling expenses, and equipment and property costs. The Authority may deduct the costs and expenses so charged and pay them out of any monies otherwise payable to the Contractor. Nothing contained herein shall be deemed to relieve the Contractor of its continuing obligation to perform any portion of this Contract that was not terminated.
- (d) The Contracting Officer may, at his or her sole discretion, waive a default by the Contractor, but such waiver shall not be deemed a waiver of any subsequent default.
- (e) Upon any termination for default, the Contracting Officer may require the Contractor to transfer title and deliver to the Authority, any completed or partially completed supplies, components (including data and intellectual property) and Contract rights that the Contractor has specifically produced or acquired for the terminated portion of this Contract. At the Contracting Officer's direction, the Contractor shall also protect and preserve property in its possession in which the Authority may have an interest.

- (f) Upon any termination for default, the Authority shall pay for supplies delivered and accepted and/or services rendered and accepted in accordance with the terms of this Contract. The Authority may also compensate the Contractor for actions that it reasonably takes at the Contracting Officer's direction for the protection and preservation of property. The Authority may withhold from these payments any sum that the Contracting Officer determines to be necessary to protect the Authority against loss because of outstanding or claimed liens, or pending or anticipated claims under the Contract.
- (g) If, at any time following the Authority's issuance of a termination for default hereunder, it is determined that the Contractor was not in default or that the default was excusable, the termination shall be converted to a termination for convenience and the rights and obligations of the parties shall be determined in accordance with the "Termination for Convenience" article of this Contract.
- (h) Any dispute or disagreement regarding any issue arising under this article shall be subject to adjudication in accordance with t the "Disputes" article of this Contract. In no event shall the Authority's issuance of a "Notice to Cure" pursuant to paragraph (b) be the basis of a dispute pursuant to the "Disputes" article or otherwise be subject to further review under this Contract or otherwise. The pendency of any dispute shall not constitute a basis for the delay or suspension of, or otherwise affect the Authority's right to proceed in accordance with this article, including without limitation, its right to complete the work or its right to insist that the Contractor complete any portion of the Contract that was not terminated.
- (i) The Authority's rights and remedies in this article are in addition to any other rights and remedies provided under this Contract, at law or in equity.

3. TERMINATION FOR CONVENIENCE- FTA

- (a) The Contracting Officer may terminate this Contract in whole, or in part, if he or she determines that a termination is in the Authority's interest. The Contracting Officer shall terminate by delivering a "Notice of Termination" to the Contractor specifying the extent of termination and its effective date.
- (b) Upon receipt of a Notice of Termination, except as the Contracting Officer otherwise directs, the Contractor shall immediately:
 - (1) Stop work as specified in the Notice of Termination;
 - (2) Complete performance of the work not terminated;
 - (3) Place no further subcontracts or orders for materials, services, or facilities, except as necessary to complete the remaining portion of the Contract;
 - (4) Terminate all subcontracts to the extent that they relate to the work terminated;

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- (5) Assign to the Authority, as directed by the Contracting Officer, all of the Contractor's right(s), title, and interest(s) under the subcontracts terminated. The Authority shall have the right to settle or pay any termination costs arising out of the subcontracts and have no further liability to the Contractor for the work that was the subject of such subcontracts;
- (6) With the Contracting Officer's approval, settle all outstanding liabilities and settlement costs arising from the termination of subcontracts;
- As the Contracting Officer directs, transfer title and deliver to the Authority: (7)
 - Parts, work in process, completed work, supplies, and other material (i) produced or acquired for the work terminated; and
 - (ii) The completed or partially completed plans, drawings, information and other property that would have been required to be furnished to the Authority, if the Contract had been completed.
- (8) Take any action that may be necessary, or as the Contracting Officer may direct, for the protection and preservation of the property related to this Contract that is in the Contractor's possession and in which the Authority has or may acquire an interest;
- (9) Use its best efforts to sell, as the Contracting Officer authorizes, any property of the types referred to in paragraph (b)(7). The Contractor is not required to extend credit to any purchaser and may acquire the property under the conditions that the Contracting Officer prescribes. The proceeds of any transfer or disposition will be applied to reduce payments to be made by the Authority under this Contract, credited to the price or cost of the work, or paid in any other manner that the Contracting Officer directs.
- The Contractor shall submit complete termination inventory schedules not later than (c) one hundred twenty (120) days from the effective date of termination, unless the Contracting Officer extends the time in writing.
- As soon as reasonably practicable, and not later than twenty (20) business days (d) following the Authority's issuance of a "Notice of Termination" pursuant to paragraph (a), the Contractor shall submit a termination settlement proposal (TSP) to the Contracting Officer in the form that he or she prescribes, detailing the costs to which it asserts entitlement pursuant to this article. If the Contractor fails to submit the TSP within the time prescribed, the Contracting Officer may determine, on the basis of information available, the amount, if any, due to the Contractor as a result of the termination and shall pay the amount so determined.
- Following submission of the Contractor's TSP pursuant to paragraph (d), the parties (e) shall agree upon the whole, or any part, of the amount to be paid or remaining to be paid as a result of the termination. The amount may include a reasonable allowance for profit on work completed. In no event shall the total amount to be paid to the Contractor pursuant to this article exceed the total Contract price as reduced by (1) payments previously made and (2) the Contract price of the remaining work, not terminated.

- (f) If the parties disagree on the whole amount to be paid because of the termination, the Contracting Officer shall pay the Contractor the amounts that he or she determines as follows, but without duplication of any amounts agreed upon under paragraph (e):
 - (1) The Contract price for completed supplies or services that the Authority accepted [or sold or acquired under paragraph (b)(9)] not previously paid for, adjusted for any saving of freight and other charges.
 - (2) The total of:
 - The costs incurred prior to termination in the performance of the work terminated, including initial costs and preparatory expenses allocable thereto, but excluding any costs attributable to items compensated or to be paid for under subparagraph (f)(1);
 - (ii) Termination costs under terminated subcontracts that are properly chargeable to the terminated portion of this Contract, if not excluded in subparagraph (f)(2)(i); and
 - (iii) A sum, representing profit on the items described in subparagraph (f)(2)(i) that the Contracting Officer determines to be fair and reasonable pursuant to Section 49.202 of the Federal Acquisition Regulation (FAR), in effect on the date of this Contract. If it appears that the Contractor would have sustained a loss on the entire Contract had it been completed, the Contracting Officer shall allow no profit under this subparagraph and shall reduce the settlement to reflect the projected rate of loss.
 - (3) The reasonable indirect costs of settlement of the work terminated, including:
 - (i) Accounting, legal, clerical, and other expenses reasonably necessary for the preparation of TSP(s);
 - (ii) The termination and settlement of subcontracts (excluding the amounts of such settlements); and
 - (iii) Storage, transportation, and other costs incurred, reasonably necessary for the preservation, protection, or disposition of the termination inventory.
- (g) Except for normal spoilage, and except to the extent that the Authority expressly assumed the risk of loss, the Contracting Officer shall exclude from the amounts payable to the Contractor under paragraph (f), the fair value, as he or she determines of property that is unavailable or damaged and undeliverable to the Authority or to a third party.
- (h) The cost principles and procedures of FAR Part 31 in effect on the date of this Contract, shall govern all costs claimed, agreed to, or determined under this article, except that the Authority shall not be obligated to pay interest, however represented, on any claimed costs.

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- (i) The Contractor shall have the right to appeal, under the "Disputes" article, from the Contracting Officer's determination under paragraphs (d) or (f). The Contractor's failure to submit the TSP within the time provided in paragraph (d), or to timely request an extension thereof, shall constitute a waiver of its right to appeal the Contracting Officer's determination pursuant to the "Disputes" article or any otherwise applicable Contractual, legal or equitable remedy.
- (j) In determining any sum due to the Contractor under this article, there shall be deducted:
 - (1) All unliquidated advances or other payments to the Contractor under the terminated portion of this Contract;
 - (2) The value, as the Contracting Officer, reasonably determines, of any claim that the Authority has against the Contractor under this Contract, including any third-party claim, if the Contracting Officer is not satisfied that sufficient insurance coverage is in place; and
 - (3) The agreed price for, or the proceeds of sale of, materials, supplies, or other items that the Contractor procured or sold under this article, not recovered by or credited to the Authority.
- (k) If the Contractor asserts that any partial termination has rendered enforcement of the remainder of this Contract at the remaining Contract price inequitable, the Contractor may file a proposal with the Contracting Officer for an adjustment to the price(s) for the continued portion of this Contract. Such proposal shall be submitted within ninety (90) days from the effective date of termination, unless the Contracting Officer extends it in writing, and shall be accompanied by appropriate supporting documentation.
- (I) The Contractor's responsibilities and obligations under this article shall remain in full force and effect notwithstanding the pendency of any dispute or other delay relating to determination of the appropriate price adjustment or any other issue arising from the termination for convenience.
- (m) Unless otherwise provided in this Contract or by statute, the Contractor and all subcontractors whose work is encompassed in the termination settlement shall maintain all records and documents relating to the terminated portion of this Contract for three (3) years after final settlement. This includes all books and other evidence bearing on the Contractor's costs and expenses under this Contract. The Contractor shall make these records and documents available to the Authority, its governing jurisdictions and any other Federal, state, or local entities providing funding for this Contract, and to the U.S. Comptroller General or the agents or representatives of any of them, at the Contractor's office, at all reasonable times, without any direct charge.

4. ASSIGNMENT- FTA

(a) Except as otherwise provided in this article, the Contractor shall not transfer any of its rights and obligations under this Contract to third parties without the Contracting Officer's prior, written consent. The Contracting Officer may recognize a third party as successor in interest to this Contract in the event of a transfer of all or substantially all of the Contractor's assets, a change in a division of the Contractor involved in the performance of this Contract, or if a parent company provides performance guarantee(s) under this Contract, (i.e., sales of assets, transfer of assets pursuant to merger or consolation, or incorporation of a proprietorship or partnership). Such recognition shall be at the Contracting Officer's discretion after review of the facts and circumstances surrounding each request. The Contracting Officer, at his or her discretion, may conduct an evaluation of the successor party's capability to perform this Contract in the same manner and to the

successor party's capability to perform this Contract in the same manner and to the same extent that he or she conducted a responsibility determination as part of the original solicitation for this Contract. Should the Contracting Officer, for any reason, not recognize such a successor in interest, he or she may terminate this Contract.

- (b) Any attempt to transfer by assignment that the Contracting Officer does not authorize shall constitute a material breach of this Contract and the Contracting Officer may terminate this Contract in accordance with the "Termination for Default" article set forth in this Contract.
- (c) Nothing contained herein shall be deemed to preclude the Contractor's assignment of claims for monies due or to be become due to it under this Contract to a bank, trust company or other financing institution, including any Federal lending agency, upon written notice of such assignment to the Contracting Officer.

5. <u>DISPUTES- FTA</u>

- Any dispute concerning a question of fact arising under or related to this Contract (a) that is not disposed of by agreement, shall be decided by the Contracting Officer, who shall reduce his/her decision to writing and mail or otherwise furnish a copy thereof to the Contractor. The Contracting Officer's decision shall be final and conclusive unless, within thirty (30) calendar days from the date of its receipt, the Contractor mails or otherwise furnishes to the Contracting Officer, a written notice of appeal addressed to the Authority Board of Directors. Such notice must indicate that an appeal is intended and must reference the decision and Contract number. The decision of the Board of Directors or its duly authorized representative for the determination of such appeals shall be final and conclusive, unless in proceedings initiated by either party for review of such decision in a court or board of competent jurisdiction, it determines that the decision was fraudulent, or capricious, or arbitrary, or so grossly erroneous as necessarily to imply bad faith, or not supported by substantial evidence. In any appeal under this article, the appellant shall be afforded an opportunity to be heard and offer evidence in support of its appeal. Pending final decision of a dispute hereunder, the Contractor shall proceed diligently with the performance of this Contract in accordance with the Contracting Officer's decision. The Armed Services Board of Contract Appeals (ASBCA) is the Board of Directors' authorized representative for final decisions on an appeal.
- (b) This "Disputes" article does not preclude consideration of questions of law in connection with decisions provided for in paragraph (a) above. Nothing in the Contract, however, shall be construed as making final the decisions of the Board of Directors or its representative on questions of law.

6. <u>EQUAL EMPLOYMENT OPPORTUNITY REQUIREMENTS FOR CONSTRUCTION</u> <u>ACTIVITIES</u>

[NOT APPLICABLE]

When undertaking "construction" as recognized by the U.S. Department of Labor (U.S. DOL), the Contractor agrees to comply with U.S. DOL regulations "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor," 41 C.F.R. Part 60, and Executive Order 11246 "Equal Employment Opportunity," as amended by Executive Order 11375, "Amending Executive Order 11246, Relating to Equal Employment Opportunity," 42 U.S.C. § 2000 (e) note.

CHAPTER VII – INDEMNIFICATION/INSURANCE/RISK OF LOSS

1. INDEMNIFICATION

- (a) Contractor shall indemnify, defend and hold harmless the Authority, its Board members, employees and agents, from all liabilities, obligations, damages, penalties, claims, costs, charges and expenses (including reasonable attorneys' fees), of whatsoever kind and nature for injury, including personal injury or death of any person or persons, and for loss or damage to any property, including the property of the Contractor and the Authority, occurring in connection with, or in any way arising out of the use, occupancy and performance of the work and/or any acts in connection with activities to be performed under this Contract, unless the loss or damage is due to the sole negligence of the Authority. Nothing in the preceding sentence shall be deemed to relieve Contractor from ultimate liability for any of its obligation under this Contract.
- (b) Contractor shall indemnify, defend and hold harmless the Authority, its Board members, employees and agents, against any and all claims, liabilities, losses, demands, damages, penalties, costs, charges, remedial costs, environmental claims, fees or other expenses including attorneys' fees, related to, arising from or attributable to any effluent or other hazardous waste, residue, contaminated soil or other similar material discharged from, removed from, or introduced on, about or under the job site. The foregoing indemnity does not apply to loss or damage due to preexisting conditions, whether known or unknown.
- (c) If any action or proceeding relating to this indemnification is brought against the Authority, then upon written notice from the Authority to the Contractor, the Contractor shall, at its own expense, resist or defend such action or proceeding by counsel approved by the Authority in writing. No approval of counsel shall be required where the cause of action is resisted or defended by counsel of any insurance carrier obligated to resist or defend the same. The Authority reserves the right to use its own counsel under this indemnity at Contractor's sole cost and expense.
- (d) Contractor understands and agrees to its responsibility to provide indemnification to the Authority pursuant to this clause. The provision of insurance, while anticipated to provide a funding source for this indemnification, is in addition to any indemnification requirements. The failure of Contractor's insurance to fully fund any indemnification shall not relieve the Contractor of any obligation hereunder.

2. INSURANCE REQUIREMENTS

If you do not currently carry all of the required insurance for this IFB, a current certificate of insurance (COI) evidencing the insurance you do carry and a letter from your insurance agent/broker stating that 'if our client (you) are awarded the contract, the required coverage will be provided' will suffice.

EXHIBIT A

Insurance Requirements Off-Site Work and Product Delivery Purchases

Coverages with an "X" are required:

[X] Workers' Compensation – Statutory Limits; Employer's Liability, \$500,000 per accident/disease

[X] Commercial General Liability insurance (CGL) - \$1,000,000 per occurrence/\$2,000,000 aggregate

[X] Automobile Liability (AL) insurance - \$1,000,000 per occurrence

Insurance Provisions:

- Insurance carriers shall have an A.M. Best rating of at least A-/VII.
- WMATA shall be named as an additional insured on the CGL and the AL policies.
- Waiver of subrogation is required for Workers' Compensation insurance.
- CGL and AL insurance shall be primary and non-contributory to any insurance WMATA may have.
- WMATA shall be provided at least 30 days written notice of cancellation.
- Vendor shall provide evidence of insurance coverage to WMATA in the form of a current certificate(s) of insurance (COI).
- Insurance shall be maintained and evidence provided (COI) for the duration of the contract.

Contractor/Vendor agrees to indemnify, defend and hold harmless WMATA from all liabilities, obligations, damages, penalties, claims, costs, charges and expenses (including reasonable attorney's fees), for loss, of whatsoever kind and nature (including but not limited to death, personal injury, property damage, or economic loss) occurring in connection with or arising out of the products or services provided, Vendor's access to WMATA property, and/or the scope of work performed under this contract including any errors or omissions of the Vendor.

Authorized Signature

Date

Print

Name/Title

Company Name

3. <u>TITLE AND RISK OF LOSS</u>

- (a) Unless this Contract specifically provides for earlier passage of title to deliverables (including documents, reports, and data) or other items resulting from this Contract, title shall pass to the Authority upon acceptance, regardless of when or where the Authority takes physical possession. Risk of loss, theft, destruction of, or damage to, such deliverables or other items remains with the Contractor, until the transfer of title or at the time when the Authority takes physical possession, whichever is later.
- (b) In the event of loss or damage to any deliverable or other item of work, prior to the time when the Authority takes physical possession, the Contractor agrees to repair or replace it as soon as reasonably possible to restore the item to the same condition that pre-existed the loss or damage, in accordance with all requirements of this Contract, without cost to the Authority. Nothing contained herein shall be deemed to require the Contractor's repair or replacement of any loss or damage caused solely by the Authority's acts or omissions.
- (c) The following clause applies, if and when the Contractor performs work on its own property.
 - (1) WMATA retains title to all WMATA-furnished property, including, but not limited to spares and property furnished for repair, maintenance, overhaul, or modification. WMATA furnished property shall not become a fixture, or lose its identity as personal property by being attached to any real property. The Contractor shall use WMATA's property, furnished under this Contract, only for performing this Contract, unless the Contracting Officer approves otherwise. Modifications or alterations of WMATA property are prohibited, unless they are (i) Reasonable and necessary due to the technical specifications for this Contract; (ii) Required for normal maintenance; or (iii) Otherwise authorized by the Contracting Officer. Risk of loss is on the Contractor for WMATA-furnished property, i.e. the Contractor is liable for loss, theft, damage or destruction to WMATA property while it is in the Contractor's possession or control. The Contractor shall take all reasonable actions necessary to protect WMATA's property from loss, theft, damage or destruction. The Contractor shall do nothing to prejudice WMATA's rights to recover against third parties for any loss, theft, damage or destruction to WMATA's property.

4. TRANSIT EMPLOYEE PROTECTIVE ARRANGEMENTS – FTA

[NOT APPLICABLE]

5. VETERANS PREFERENCE- FTA

[NOT APPLICABLE]

A veterans preference, as provided by 49 U.S.C. §5325(k), to the extent practical, (1) Will give a hiring preference to veterans, as defined in 5 U.S.C. §2108, who have the skills and abilities required to perform construction work required under a third party contract in connection with a Capital Project supported with Federal assistance appropriated or made available for 49 U.S.C. chapter 53, and (2) Will not require an employer to give a preference to any veteran over an equally qualified applicant who is a member of any racial or ethnic minority, female, and individual with a disability, or former employee.

6. INAPPLICABILITY OF CLAUSES REQUIRING UNAUTHORIZED OBLIGATIONS

- (a) Except where the Chief Procurement Officer specifically agrees in writing, when any supply or service acquired under this Contract is subject to any End User License Agreement (EULA), Terms of Service (TOS), Master Agreement, Terms and Conditions or similar legal instrument or agreement, that includes any clause requiring WMATA to indemnify the Contractor or any person or entity for damages, costs, fees, or any other loss or liability or that would create an unauthorized obligation, the following shall govern:
 - (i) Any such clause is unenforceable against WMATA.
 - (ii) Neither WMATA nor any authorized end user shall be deemed to have agreed to such clause by virtue of it appearing in the EULA, TOS, or similar legal instrument or agreement. If the EULA, TOS, or similar legal instrument or agreement is invoked through an "I agree" click box or other comparable mechanism (e.g., "click-wrap" or "browse-wrap" agreements), execution does not bind WMATA or any WMATA authorized end user to such clause.
 - (iii) Any such clause is deemed to be stricken from the EULA, TOS, or similar legal instrument or agreement.
- (b) When any supply or service acquired under this Contract is subject to any End Use License Agreement (EULA), Terms of Service (TOS), or similar legal instrument or agreement, any clause requiring WMATA to pay pre-judgment interest, taxes to which it is exempt, or automatic fines is void and without effect.

CHAPTER VIII – INTELLECTUAL PROPERTY RIGHTS

1. PATENT INDEMNITY

The Contractor shall indemnify the Authority and its Board members, agents and employees against liability, including costs, for infringement of any United States patent (except a patent issued upon an application that is now or may hereafter be withheld from issue pursuant to a Secrecy Order under 35 U.S.C. § 181) arising out of the manufacture or delivery of supplies, the performance of services, or the construction, alteration, modification, or repair of real property under this Contract. If the Contractor is not the original equipment manufacturer (OEM) for a manufactured product purchased under this Contract, it will ensure that the patent holder provides indemnity to WMATA under this article. This indemnity shall not apply unless the Contractor is informed as soon as practicable by the Authority of the suit or action alleging such infringement, and is given such opportunity as is afforded by applicable laws, rules, or regulations to participate in the defense thereof. Such indemnity shall not apply to:

- (1) An infringement resulting from compliance with the Contracting Officer's specific written instructions directing a change in the supplies to be delivered or in the materials or equipment to be used, or directing a manner or performance of the Contract not normally used by the Contractor;
- (2) An infringement resulting from addition to, or change in, such supplies or components furnished or construction work performed that was made subsequent to delivery or performance by the Contractor; or
- (3) A claimed infringement that is unreasonably settled without the Contractor's consent, unless required by final decree of a court of competent jurisdiction.

2. <u>SET-OFF</u>

The Authority has common law, equitable and statutory rights to set-off. These rights shall include, but are not limited to, the Authority's right to set-off any monies due to the Contractor under this Contract, by any amounts due and owing to the Authority with regard to, any Contract with the Authority, plus any amounts due and owing to the Authority for any other reason including, without limitation, tax delinquencies, fee delinquencies or monetary penalties relative thereto. The Authority shall exercise its set-off rights in accordance with applicable law and practices including, in cases of set-off pursuant to an audit, the finalization of such audit by the Authority, its representatives, or the Federal Government.

3. <u>RIGHTS IN TECHNICAL DATA – LIMITED</u>

[NOT APPLICABLE]

4. <u>RIGHTS IN TECHNICAL DATA – UNLIMITED</u>

- (a) The term technical data as used in this article means technical writings, computer software, sound recordings, pictorial reproductions, drawings, or other graphic representations and works of a technical nature, whether or not copyrighted, that are specified to be delivered pursuant to this Contract. The term does not include financial reports, cost analyses, and other information incidental to Contract administration. "Computer software" as used in this article means computer programs, computer data bases, and documentation thereof.
- (b) The Authority or its designated representative shall have the right to use, duplicate or disclose technical data, including computer software, in whole or in part, in any manner and for any purpose whatsoever, and to have or permit others to do so that is contained in or derived from:
 - (1) Any manuals, instructional materials prepared for installation, operation, maintenance or training purposes;
 - (2) Technical data pertaining to end items, components or processes that were prepared for the purpose of identifying sources, sizes, configurations, mating and attachment characteristics, functional characteristics and performance requirements ("form, fit and function" data such as, specification control drawings, catalog sheets, and outline drawings Except for the computer software, it means data identifying sources, functional characteristics, and performance requirements, but specifically excludes the source code, algorithms, processes, formulae, and flow charts of the software.);
 - (3) Other technical data that the Contractor or subcontractor, normally furnishes without restriction;
 - (4) Other specifically described technical data that the parties have agreed will be furnished without restriction;
 - (5) All computer software regardless of whether it is technical data as defined in this article, including the source code, algorithms, processes, formulae, and flow charts, that the Contractor developed or materially modified for the Authority or for which the Authority is required by Federal law or regulation to provide a royalty-free, irrevocable and nonexclusive license to the Federal government.
- (c) The Authority shall have the right to use, duplicate, or disclose technical data other than as defined in paragraph (a), in whole or in part. Such technical data shall not, without the written permission of the party furnishing such technical data, be:
 - (1) Released or disclosed, in whole or in part, outside of the Authority,
 - (2) Used, in whole or in part, by the Authority for manufacturing, or

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- (3) Used by a party other than the Authority except for: (i) emergency repair or overhaul, (ii) where the item or process concerned is not otherwise reasonably available to the Authority to enable timely performance of this work, or (iii) administration of this Contract or the inspection of any products produced under it, where the third party has a written contract with the Authority to perform these efforts. In all cases described in this subsection, the release or disclosure outside of the Authority shall be subject to a nondisclosure agreement.
- (d) Technical data provided in accordance with paragraph (c) shall be identified with a legend that suitably recites this limitation. This article shall not impair the Authority's right to use similar or identical data acquired from other sources.
- (e) Where any item is purchased as a separate line item in this Contract, that purchase includes all integral parts of that item, including any computer software, source code, algorithms, processes, formulae, and flow charts. The Authority has full rights to use, duplicate or disclose any or all parts of the item, including computer software, in whole or in part, in any manner and for any purpose whatsoever, and to permit others to do so. Should disclosure of the computer software be required only under this paragraph, then the Contracting Officer may waive the provisions of this paragraph if he or she certifies in writing that the item is commercially available from multiple sources and will be fully compatible with existing Authority property.
- (f) Material covered by copyright:
 - (1) The Contractor grants to the Authority, and to its Board members, agents and employees acting within the scope of their official duties, a royalty-free, nonexclusive and irrevocable license throughout the world for the Authority's purposes to publish, translate, reproduce, deliver, perform, dispose of, and to authorize others so to do, all technical data and computer software covered by subsection (b) (5) now or hereafter covered by copyright.
 - (2) No such copyrighted matter shall be included in (i) technical data or (ii) computer software covered by subsection (b) (5) furnished hereunder without the written permission of the copyright owner for the Authority to use such copyrighted matter in the manner above described.
 - (3) The Contractor shall report to the Authority promptly and in reasonable written detail each notice or claim of copyright infringement it receives regarding any technical data or computer software covered by subsection (b)(5) provided to the Authority.
- (g) Relation to patents: Nothing contained in this article shall imply a license to the Authority under any patent, or be construed as affecting the scope of any license or other right otherwise granted to the Authority under any patent.
- (h) Any dispute under this article shall be subject to the "Disputes" article of this Contract.
- (i) The Contracting Officer may retain from payment up to ten percent (10%) of the Contract price until final delivery and acceptance of the technical data defined in this Article and as required to be furnished by the Price Schedule or the Contract's specifications.

5. <u>NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT INFRINGEMENT</u> [SUPPLIES]

- (a) The Contractor shall report to the Contracting Officer, promptly and in reasonable written detail, each notice or claim of patent or copyright infringement based on this Contract, once the Contractor is notified thereof.
- (b) In the event of any claim or suit against the Authority based on any alleged patent or copyright infringement arising out of this Contract or out of the use of any supplies furnished or services performed hereunder, the Contractor shall furnish to the Contracting Officer, all evidence and information in its possession pertaining to such suit or claim. Such evidence and information shall be furnished at the Contractor's expense since the Contractor has agreed to indemnify the Authority for such infringement claims.
- (c) This article shall be included in all subcontracts.

CHAPTER IX – ADDITIONAL COVENANTS/LEGAL REQUIREMENTS

1. NONDISCRIMINATION ASSURANCE- FTA

- (a) Nondiscrimination Assurance. In accordance with Title VI of the Civil Rights Act, as amended, 42. U.S.C. §2000 (d), section 303 of the Age Discrimination Act of 1975, as amended, 42 U.S.C. §6102, section 202 of the American with Disabilities Act of 1990, 42 U.S.C. §12132, D.C. law and Federal transit law at 49 U.S.C. §5332, the Contractor, sub-recipient, or subcontractor agrees that it will not discriminate against any employee or applicant for employment because of race, color, creed, religion, national origin, sex, age, sexual preference, gender identity and/or disability. In addition, the Contractor, sub-recipient, or subcontractor agrees to comply with applicable Federal implementing regulations and other regulations that FTA may issue.
- (b) *Equal Employment Opportunity*: The following equal employment opportunity requirements apply to this Contract.
 - (1) Race, Color, Creed, National Origin, Sex. In accordance with Title VII of the Civil Rights Act, as amended, 42. U.S.C. §2000(e), and Federal transit laws at 49 U.S.C. §5332, the Contractor agrees to comply with all applicable equal opportunity requirements of the U.S. Department of Labor (U.S. DOL) including, but not limited to "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor, " 41 C.F.R. [implementing Executive Order No. 11246, "Equal Part 60 et. seq., Employment Opportunity," as amended by Executive Order No. 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," 42 U.S.C. § 2000(e) 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 this The Contractor agrees to take affirmative action to ensure that Contract. 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. In addition, the Contractor agrees to comply with any implementing requirements that FTA may issue.
 - (2) 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, the Contractor agrees to refrain from discrimination against present and prospective employees for reason of age. In addition, the Contractor agrees to comply with any implementing requirements that FTA may issue.
 - (3) Disabilities. In accordance with section 102 of the Americans with Disabilities Act, as amended, 42 U.S.C. §12112, the Contractor 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, the Contractor agrees to comply with any implementing requirements that FTA may issue.

- (c) The Contractor also agrees to include all of these requirements in each subcontract financed, in whole or in part, with Federal assistance provided by FTA, modified only, if necessary, to identify the affected parties.
- (d) Failure by the Contractor, sub-recipient, or subcontractor to carry out these requirements is a material breach of this Contract, that may result in the termination or such other remedy as the Authority deems appropriate.

2. <u>CONTRACT WORK HOURS AND SAFETY STANDARDS ACT-OVERTIME</u> <u>COMPENSATION</u>

This Contract, to the extent that it is of a character specified in the Contract Work Hours and Safety Standards Act (40 U.S.C. §§ 327-333), is subject to the following provisions and to all other applicable provisions and exceptions of such Act and the regulations of the U.S. Secretary of Labor thereunder.

- (a) Overtime requirements. No Contractor or subcontractor contracting for any part of the Contract work that may involve the employment of laborers, mechanics, apprentices, trainees, watchmen, and guards shall require or permit any such employee in any workweek in which he or she is employed to work in excess of forty (40) hours in such work week on work subject to the provisions of the Contract Work Hours and Safety Standards Act unless such employee receives compensation at a rate not less than one and one-half (1 ½) times his or her basic rate of pay for all hours worked in excess of forty (40) hours in such work week.
- (b) Violation. Liability for Unpaid Wages-Liquidated damages. In the event of any violation of paragraph (a) the Contractor and any subcontractor responsible therefore shall be liable to any affected employee for his or her unpaid wages. In addition, such Contractor and subcontractor shall be liable to the Authority for liquidated damages. Liquidated damages shall be computed with respect to each individual laborer, mechanic, apprentice, trainee, watchman or guard employed in violation of paragraph (a) in the sum of \$10 for each calendar day on which such employee was required or permitted to be employed on such work in excess of his or her standard work week of forty (40) hours without payment of the overtime wages required by paragraph (a).
- (c) *Withholding for unpaid wages and liquidated damages.* The Contracting Officer may withhold from the Contractor, such sums as he or she determines to be necessary to satisfy any liabilities of such Contractor or subcontractor for unpaid wages and liquidated damages as provided in paragraph (b).
- (d) Subcontracts. The Contractor shall insert this article in all subcontracts at any tier. Contractor shall also require subcontractors to include this clause in any lower tier subcontracts. The Contractor shall be responsible for compliance by any and all subcontractors at every tier.
- (e) *Records.* The Contractor shall maintain payroll records containing the information specified in 29 C.F.R. § 516.2(a). Such records shall be preserved for three (3) years from the completion of this Contract.

3. WALSH-HEALEY PUBLIC CONTRACTS ACT

If this Contract is for materials, supplies, or equipment in an amount that may exceed \$10,000 and is subject to the Walsh-Healey Public Contracts Act, as amended (41 U.S.C. §§ 35-45) the following terms and conditions apply:

- (a) All stipulations required by the Act and regulations issued by the U.S. Secretary of Labor (41 C.F.R. Part 50) are incorporated by reference. These stipulations are subject to all applicable rulings and interpretations of the U.S. Secretary of Labor that are now, or may hereafter, be in effect.
- (b) All employees whose work relates to this Contract shall be paid not less than the minimum wage prescribed by the U.S. Secretary of Labor (41 C.F.R. § 50-202.2). Learners, student learners, apprentices, and certain handicapped workers may be employed at less than the prescribed minimum wage (41 C.F.R. § 50-202.3) to the same extent that such employment is permitted under Section 14 of the Fair Labor Standards Act (41 U.S.C. § 40).

4. DAVIS-BACON ACT- FTA

[NOT APPLICABLE]

5. <u>COPELAND ANTI-KICKBACK ACT – FTA</u>

[NOT APPLICABLE]

6. <u>CONVICT LABOR</u>

- (a) Except as provided in paragraph (b), the Contractor shall not employ in the performance of this Contract any person undergoing a sentence of imprisonment imposed by any court of the Federal Government, a State, the District of Columbia, Puerto Rico, the Northern Mariana Islands, American Samoa, Guam or the U.S. Virgin Islands.
- (b) The Contractor is not prohibited from employing persons:
 - (1) On parole or probation to work at paid employment during the term of their sentence;
 - (2) Who have been pardoned or who have served their terms; or

- (3) Confined for violation of the laws of the Federal Government, the states, the District of Columbia, Puerto Rico, the Northern Mariana Islands, American Samoa, Guam, or the U.S. Virgin Islands who are authorized to work at paid employment in the community under the laws of such jurisdiction, if—
 - (a) The worker is paid or is in an approved work or training program on a voluntary basis;
 - (b) Representatives of the local union's central bodies or similar labor union organizations have been consulted;
 - (c) Such paid employment will not result in the displacement of employed workers, or be applied in skills, crafts, or trades where there is a surplus of available gainful labor in the locality, or impair existing contracts or services;
 - (d) The rates of pay and other conditions of employment will not be less than those paid or provided for work of a similar nature in the locality where the work is being performed; and
 - (e) The Attorney General of the United States has certified that the workrelease laws or regulations of the jurisdiction involved are in conformity with the requirements of Executive Order 11755, as amended by Executive Orders 12608 and 12943.

7. COVENANT AGAINST CONTINGENT FEES

- (a) The Contractor warrants that no person or selling agency has been employed or retained to solicit or secure this Contract upon an agreement for a commission, percentage, brokerage or contingent fee, excepting bona fide employees or bona fide, established commercial or selling agencies maintained by the Contractor for the purpose of securing business. For breach of this warranty, the Authority shall have the right to terminate this Contract without liability or, in its discretion, to deduct from the Contract price, or otherwise recover, the full amount of such commission, percentage, brokerage, or contingent fee, if no fraud is suspected.
- (b) If fraud is suspected, the Authority's only remedy prior to final adjudication by a court of competent jurisdiction is to report the matter to WMATA's Office of Inspector General (OIG), the U.S. Department of Transportation's Office of Inspector General (DOT-OIG), the Offices of Inspectors General of any agency providing funding under this Contract and/or appropriate Federal, state and/or local law enforcement authorities.

8. <u>SEAT BELT USE POLICY</u>

The Contractor agrees to comply with terms of Executive Order No. 13043 "Increasing Seat Belt Use in the United States" and is encouraged to include these requirements in each subcontract awarded for work relating to this Contract.

9. <u>SENSITIVE SECURITY INFORMATION</u>

The Contractor must protect, and take measures to assure that its subcontractors at each tier protect, "sensitive information" made available during the course of administering an Authority contract or subcontract in accordance with 49 U.S.C. Section 40119(b) and implementing DOT regulations, "Protection of Sensitive Security Information," 49 CFR Part 15, and with 49 U.S.C. Section 114(s) and implementing Department of Homeland Security regulations, "Protection of Sensitive Security Information," 49 CFR Part 15, and with 49 U.S.C. Section 114(s) and implementing Department of Homeland Security regulations, "Protection of Sensitive Security Information," 49 CFR Part 1520.

10. LAWS AND REGULATIONS

The Contractor shall be responsible to comply with any applicable State of Maryland, Commonwealth of Virginia, District of Columbia, Federal and local laws and regulations governing the services and/or supplies to be provided under this Contract. Further, the Contractor shall be responsible to obtain, at its own cost and expense, any and all licenses/permits required to transact business in any political jurisdictions where work will be performed.

11. HAZARDOUS MATERIAL IDENTIFICATION AND MATERIAL SAFETY DATA

- (a) The Contractor agrees to submit a Material Safety Data Sheet (U.S. Department of Labor Form OSHA-20), as prescribed in Federal Standard No. 313B, for all hazardous materials five (5) days before delivery of the material, whether or not listed in Appendix A of the Standard. This obligation applies to all materials delivered under this Contract that involve exposure to hazardous materials or items containing these materials.
- (b) "Hazardous material," as used in this clause, is defined in Federal Standard No. 313B, in effect on the date of this Contract.
- (c) Neither the requirements of this clause nor the Authority's acts or omissions shall relieve the Contractor of any responsibility or liability for the safety of Authority's, personnel or property.
- (d) Nothing contained in this article shall relieve the Contractor from complying with applicable Federal, state, and local laws, codes, ordinances, and regulations (including the requirement to obtain licenses and permits) in connection with hazardous materials.

- (e) The Authority's rights in data furnished under this Contract regarding hazardous materials are as follows:
 - (1) To use, duplicate and disclose any data to which this clause is applicable. The purposes of this right are to (a) apprise personnel of the hazards that they may be exposed to in using, handling, packaging, transporting, or disposing of hazardous materials (b) obtain medical treatment for those affected by the materials; and (c) have others use, duplicate, and disclose the data for the Authority for these purposes.
 - (2) To use, duplicate, and disclose data furnished under this article in precedence over any other provision of this Contract providing for rights in data.
 - (3) The Authority is not precluded from using similar or identical data acquired from other sources.
 - (4) The data shall not be duplicated, disclosed, or released outside of the Authority, in whole or in part, for any acquisition or manufacturing purpose, if the following legend is marked on each piece of data to which this clause applies -

"This data furnished under this Contract shall not be used, duplicated, or disclosed for any acquisition or manufacturing purpose without the Contracting Officer's permission. This legend shall be marked on any reproduction of this data."

- (5) The Contractor shall not place any restrictive legend on any data that (i) the Contractor or any subcontractor previously delivered to the Authority without limitations; or (ii) should be delivered without limitations under the "Rights in Technical Data" clause.
- (6) The Contractor shall insert this article including this paragraph, with appropriate changes in the designation of the parties, in subcontracts at any tier (including purchase designations or purchase orders) under this Contract involving hazardous materials.

12. LIVING WAGE

[NOT APPLICABLE]

13. METRIC SYSTEM

To the extent the Federal Government directs, the Contractor agrees to use the metric system of measurement in its Contract activities, in accordance with the Metric Conversion Act, as amended by the Omnibus Trade and Competitiveness Act, 15 U.S.C. § 205 (a) *et. seq.*; Executive Order No. 12770, "Metric Usage in Federal Government Programs," 15 U.S.C. § 205(a) note; and applicable U.S. DOT or FTA regulations in accordance with applicable Federal directives. As practicable and feasible, the Contractor agrees to supply products and services with dimensions expressed in the metric system of measurement. Metric usage shall not be required to the extent that such use is impractical or is likely to cause significant inefficiencies or loss of markets to United States firms.

14. MANDATORY DISCLOSURE

The Contractor shall timely disclose, in writing, to WMATA's Office of the Inspector General (OIG), with a copy to the Contracting Officer, whenever, in connection with the award, performance, or closeout of this Contract or any subcontract hereunder, the Contractor has credible evidence that a principal, employee, agent, or subcontractor of the Contractor has committed—

- (a) A violation of Federal criminal law involving fraud, conflict of interest, bribery, or gratuity violations found in Title 18 of the United States Code; or
- (b) A violation of the civil False Claims Act (31 U.S.C. §§ 3729-3733).
 - (1) WMATA, to the extent permitted by law and regulation, will safeguard and treat information obtained pursuant to the Contractor's disclosure as confidential where the information has been marked "confidential" or "proprietary" by the company. To the extent permitted by the law and regulation, such information will not be released by WMATA to the public pursuant to a Public Access to Records (PARP) request. WMATA may transfer documents provided by the Contractor to any department or agency within the state, Federal or local government, if the information relates to matters within the organization's jurisdiction.
 - (2) If the violation relates to an order against a government-wide acquisition contract, a multi-agency contract, a multiple-award schedule contract such as the Federal Supply Schedule, or any other procurement instrument intended for use by multiple agencies, the Contractor shall notify the OIG of the ordering agency and the OIG of the agency responsible for the basic contract.

15. WHISTLEBLOWER PROTECTION – FEDERAL

- (a) The Contractor and its subcontractors shall encourage their employees and independent contractors to report information without fear of actual or threatened discrimination, retaliation or reprisal that they in good faith reasonably believe is evidence of gross mismanagement; gross misuse or waste of public resources or funds; fraud; violation of law; abuse of authority in connection with the conduct of WMATA operations or contracts; or a substantial and specific danger to health, security or safety. The Contractor and its subcontractors shall notify their employees that they may make reports under this paragraph to:
 - WMATA's Office of Inspector General (OIG), in person, in writing, through the OIG Hotline (888-234-2374) or email wmata-oig-hotline@verizon.net or by any other reasonable means;
 - (2) WMATA's Metro Transit Police Department (MTPD), in person, by telephone (202-962-2121) or by any other reasonable means, or to the OIG, if the information constitutes a potential violation of criminal law;
 - (3) WMATA's Chief Safety Officer, in person, in writing, through the SAFE Hotline (202-249-7233) or email safety@wmata.com, or by any other reasonable means; or
 - (4) Any other official, office or agency within WMATA or outside WMATA that the employee or independent contractor reasonably believes has the authority to act on the matter.
- (b) The Contractor, its employees, independent contractors and subcontractors shall cooperate with any inquiry or review by an authorized official of WMATA, or by the Federal government or any other governmental entity with jurisdiction over WMATA, regarding a matter that would constitute a report under paragraph (a) or a violation of this or any whistleblower provision of this Contract, and with any enforcement or judicial proceeding arising from such inquiry or review.
- (c) The Contractor and its subcontractors shall not interfere with or deny the right of any employee or independent contractor of either the Contractor or any of its subcontractors to make a report under paragraph (a). The Contractor and its subcontractors shall not recommend, take or threaten to take any action having a negative or adverse impact on any employee or independent contractor of either the Contractor or any of its subcontractors because he or she:
 - (1) Made or is perceived to have made a report under paragraph (a);
 - (2) Sought a remedy under applicable law after making a report under paragraph
 - (3) Participated in or cooperated with an inquiry or review by an authorized official of WMATA, or by the Federal government or any other governmental entity with jurisdiction over WMATA, regarding a matter that would constitute a report under paragraph (a) or a violation of this or any whistleblower provision of this Contract, or with an enforcement or judicial proceeding arising from such inquiry or review;

- (4) Refused to obey an order that would violate law; or
- (5) Refused to work or authorize work when a hazardous safety or security condition presents an imminent danger of death or serious injury, there was no reasonable alternative to refusal, there was not sufficient time to eliminate the danger in absence of refusal and the individual, where possible, notified the Contactor or subcontractor of the condition and of his or her intent not to perform or authorize work.
- (d) The Contractor shall include, or shall cause to be included, the substance of this clause, including this paragraph (d), in its subcontracts at all tiers.
- (e) The Contractor and its subcontractors shall comply with the National Transit Systems Security Act (NTSSA) 6 U.S.C. §1142, which prohibits discharging, demoting, suspending, reprimanding or in any other way discriminating against an employee as a reprisal for the employee lawfully and in good faith:
 - (1) Reporting a hazardous safety or security condition;
 - (2) Refusing to work when a hazardous safety or security condition presents an imminent danger of death or serious injury, there is no reasonable alternative to refusal, there is not sufficient time to eliminate the danger in absence of refusal and the individual, where possible, has notified the Contractor or subcontractor of the condition and of his or her intent to not perform work;
 - (3) Refusing to authorize the use of any safety or security related equipment, track or structures, if the individual is responsible for their inspection or repair and reasonably believes they are in a hazardous safety or security condition, there is no reasonable alternative to refusal, there is not sufficient time to eliminate the danger in absence of refusal and the individual, where possible, has notified the Contractor or subcontractor of the condition and of his or her intent not to authorize use of hazardous equipment or infrastructure unless corrected;
 - (4) Providing information for or directly assisting in an investigation of conduct that the individual reasonably believes to be in violation of Federal law regarding safety, security or fraud, waste or abuse of funds intended for safety or security;
 - (5) Refusing to violate or assist in violation of Federal public transportation safety or security law;
 - (6) Cooperating with a safety or security investigation by the U.S. Secretary of Transportation, U.S. Secretary of Homeland Security or the National Transportation Safety Board;
 - (7) Furnishing information to law enforcement agencies relating to an accident or incident resulting in damage to property, injury or death; or
 - (8) Filing a complaint under the NTSSA (6 U.S.C. §1142), or testifying regarding such complaint.

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- (f) The Contractor shall notify the Authority of any instance, related to this Contract, of a report under subparagraph (e)(1) or refusal under subparagraphs (e)(2), (3) or (5).
- (g) The enforcement, filing and investigation of complaints, and remedies under this clause shall be governed by the NTSSA (6 U.S.C. §1142), applicable Federal regulations and Federal law.
- (h) This clause shall be interpreted in accordance with the NTSSA (6 U.S.C. §1142). If any provision is found to be in conflict with the NTSSA, the NTSSA shall govern.
- (h) The Contractor shall include, or shall cause to be included, this clause, including this paragraph, in its subcontracts at all tiers.

16. WORKPLACE VIOLENCE/ZERO TOLERANCE

Pursuant to Metro Policy/Instruction 7.8.3, all Metro Contractors must: (1) establish zero tolerance for acts of workplace violence for their employees and those of subcontractors at any tier, and (2) not retaliate against any of their employees or independent contractors for cooperating with investigations.

17. <u>DRUG AND ALCOHOL TESTING (FOR SAFETY SENSITIVE FUNCTIONS ONLY) – FTA</u> [NOT APPLICABLE]

18. <u>EMPLOYMENT RESTRICTION WARRANTY</u>

- (a) The Contractor warrants that it will not offer employment to, solicit or discuss prospective employment with, or otherwise engage in substantive employment related discussions or communications with, any present or former Board member of the Authority who has been involved, directly or indirectly, in any matter of financial interest to the Contractor until at least two (2) years after the Board member has ceased involvement in the matter. The post-employment restriction on former Authority employees is one (1) year from the date of their last employment with WMATA. The Contractor shall not knowingly engage in communications of the nature described above with any immediate family member or member of the household of any Authority employee or Board member during the period when such employee or Board member is involved in any matter of financial interest to the Contractor.
- (b) If a former Board member or employee of the Authority is eventually hired, the Contractor shall ensure that the former Board member or employee is not involved in negotiating or otherwise dealing with the Authority on any particular matter over which he or she had responsibility during his or her tenure.
- (c) Should the Contractor fail to comply with the provisions hereof, and no fraud is suspected, the Contracting Officer shall have the right to withhold payment under this Contract in an amount not to exceed two percent (2%) of the total Contract amount as liquidated damages to the Authority, such withholding to be in addition to any other withholding or retainage under this Contract. Any dispute shall be settled in accordance with the "Disputes" clause of this Contract.

(d) If fraud is suspected, the Authority's only remedy prior to a final decision by a court of competent jurisdiction is to report the matter to WMATA's Office of Inspector General (OIG), the U.S. Department of Transportation's Office of Inspector General (DOT-OIG), the Offices of Inspectors General of any state or Federal agency providing funding under this Contract and/or appropriate Federal, state and/or local law enforcement authorities.

19. <u>GRATUITIES</u>

- (a) In connection with performance of this Contract, or any changes or modifications relative thereto, the giving of or offering to give gratuities (in the form of entertainment, gifts or otherwise) by the Contractor, or any agent, representative or other person deemed to be acting on behalf of the Contractor, or any supplier or subcontractor furnishing material to or performing work under this Contractor, to any Board member, employee or agent of the Authority; with a view toward securing this Contract or securing favorable treatment regarding this Contract is expressly forbidden. The terms of this "Gratuities" clause shall be strictly construed and enforced in the event of violations hereof.
- (b) Reported instances of the giving or offering to give gratuities within the context of this "Gratuities" clause will be investigated by the Authority's Board of Directors or its duly authorized representative. A preliminary investigation will be made to determine whether there is probable cause to suspect that a violation of this clause exists. If such probable cause exists, the Board of Directors, or its duly authorized representative, shall formally notify WMATA's Office of Inspector General (OIG), the U.S. Department of Transportation's Office of Inspector General (DOT-OIG), the Offices of Inspectors General of any state or Federal agency providing funding under this Contract and/or appropriate Federal, state and/or local law enforcement authorities.
- (c) The rights and remedies of the Authority provided in this clause shall not be exclusive and are in addition to any other rights and remedies provided under this Contract, at law or in equity.

20. OFFICIALS NOT TO BENEFIT

- (a) No member of or delegate to Congress, resident commissioner or member of a state or local public body shall be admitted to any share or part of this Contract, or to any benefit that may arise therefrom during his or her tenure or for two (2) years thereafter, unless his or her interest in the business entity that is awarded this Contract is placed in a blind trust in accordance with the rules and regulations of the U.S. Office of Government Ethics (OGE).
- (b) Enforcement of this clause shall be consistent with 18 U.S.C. §431.

21. ORGANIZATIONAL CONFLICTS OF INTEREST

- (a) An organizational conflict of interest (OCI) exists when the nature of the work to be performed under a proposed contract or a subcontract may, without some restriction on future activities result in an unfair competitive advantage to the Contractor or subcontractor; because of (1) unequal access to information, (2) biased ground rules or (3) impaired objectivity. An unequal access to information OCI may exist if in performing a Contract, a Contractor obtains access to non-public information that provides it with a competitive advantage in a later competition. A biased ground rules OCI may exist if the Contractor has a role in setting rules for a source selection in which it will compete. An impaired objectivity OCI may exist if, in performing a Contract, a Contractor is called upon to evaluate an offer from or performance by, itself or an affiliated entity.
- (b) In the event that the Contractor believes that it or any of its potential subcontractors may have an OCI, it shall notify the Contracting Officer, in writing, within five (5) working days after it becomes aware of the potential or actual OCI. The written notification shall identify the nature and circumstances of the perceived conflict and propose appropriate measures to eliminate or mitigate the OCI. The Contracting Officer will review the circumstances and the proposed mitigation plan and notify the Contractor stating whether: (1) no mitigation is required; (2) the conflict cannot be mitigated; or (3) the conflict can be mitigated and he or she accepts the proposed measures, or recommends additional measures.
- (c) The Contractor's failure to identify such perceived conflicts may result in the Contract being rescinded or terminated.
- (d) Should the Contractor identify or become aware of a conflict during the term of this Contract, including any extension thereof that it could not reasonably anticipate prior to award, it shall notify the Contracting Officer in accordance with paragraph (b), or request an exception to the restriction with supporting rationale. The Contracting Officer shall consider the Contractor's proposed measures to mitigate or eliminate the conflict, or the request for an exception.
- (e) If the proposed measures are not determined to be feasible or are otherwise not acceptable to the Contracting Officer, he or she may terminate the Contract. If the Contracting Officer does not grant a request for an exception, and the Contract is not terminated, the Contractor shall be notified in writing and be given ten (10) days from the date of the written notification to take all necessary actions to comply with this clause.
- (f) If the proposed measures are determined to be acceptable to the Contracting Officer, he or she may grant a specific exception to this restriction, when in the Contracting Officer's judgment, the exception will not create a conflict between the Contractor's duties and obligations under this Contract and the duties and obligations imposed on the Contractor under another contractual or other relationship.

- (g) If the Contractor fails to comply with the terms of this clause, and no fraud is suspected, the Contracting Officer, may withhold payments due under this Contract until such time as the Contractor is in compliance or, should the non-compliance remain uncorrected at the expiration of ten (10) days from the Contracting Officer's written notice as provided in paragraph (b), terminate the contract for default pursuant to this Contract.
- (h) If fraud is suspected, the Authority's only remedy prior to a final determination by a court of competent jurisdiction is to report the matter to WMATA's Office of Inspector General (OIG), the U.S. Department of Transportation's Office of Inspector General (DOT-OIG), the Offices of Inspectors General of any state or Federal agency providing funding under this Contract and/or appropriate Federal, state and/or local law enforcement authorities.
- (i) The Contractor, in performing this Contract, shall avoid any conduct that might result in or give the appearance of creating for Board members or employees of the Authority in their relationship with the Contractor, any conflicts of interest or favoritism and/or the appearance thereof and shall avoid any conduct that might result in a Board member, or employee failing to adhere to any Code of Ethics or standards of conduct adopted by the Authority's Board of Directors.
- (j) The Contracting Officer's determination under this clause shall be final and shall be considered a question of fact within the meaning of the "Disputes" article of this Contract.

22. CONTRACTOR PERSONNEL

- The Authority may direct the replacement of the Contractor's employees reasonably (a) deemed to be unsuitable by the Contracting Officer, or whose continued participation in the work is deemed contrary to the best interests of the Authority. Except in circumstances deemed exigent by the Contracting Officer, the reason for replacement will be discussed between the Contractor and the Authority before a replacement directive is issued. Upon receipt of a written replacement directive from the Authority specifying the date by which the replacement must occur, the Contractor shall proceed with the replacement and shall do so in a manner that minimizes, to the greatest extent practicable, any impact upon the Contract.
- (b) Contractor personnel required to work on WMATA's property must obtain a WMATA vendors' badge and successfully complete the mandatory safety training that must be renewed yearly. The Contractor must advise its affected personnel that, to obtain a vendor's badge, a signed waiver to perform a background check is required.

23. FALSE STATEMENTS, CLAIMS OR SUBMISSIONS

- (a) The Contractor acknowledges its responsibility to undertake its obligations under this publicly funded Contract with full integrity and, to take all reasonable steps to ensure that statements, claims and submissions made pursuant to this Contract are provided in good faith and with a reasonable belief as to their truthfulness, accuracy and completeness.
- (b) In the event that it is finally determined by a court of competent jurisdiction that any statement, claim, submission, or certification made by or on behalf of the Contractor pursuant to a material element of the Contract was knowingly false, fictitious or fraudulent, the Authority shall be entitled to recover from the Contractor, an amount equal to not more than three (3) times the monetary value of the benefit derived or sought to be derived by the Contractor through its false statement, claim or submission. For purposes hereof, an element of the Contract shall be deemed material if it impacted or could reasonably have been intended to impact the disposition of any claim, dispute, proposed or implemented change order, proposed pricing or schedule adjustment of any nature, or other substantive issue directly affecting the rights of the parties under the Contract.
- (c) The Authority's only remedy prior to a final determination by a court of competent jurisdiction is to report the matter to WMATA's Office of Inspector General (OIG), the U.S. Department of Transportation's Office of Inspector General (DOT-OIG), the Offices of Inspectors General of any state or Federal agency providing funding under this Contract and/or appropriate Federal, state and/or local law enforcement authorities.
- (d) The Authority's rights set forth in this article are in addition to any contractual, legal or equitable rights that may arise upon the Contractor's submission of a false claim or statement, including without limitation, the Authority's right to terminate the Contract for default once fraud is finally determined by a court of competent jurisdiction. The provisions of this clause shall not serve in any respect to limit, waive or modify any civil or criminal liability, of the Contractor or any of its officers, agents or employees that such conduct may precipitate.

CHAPTER X – MISCELLANEOUS ADDITIONAL PROVISIONS

1. FEDERAL, STATE, AND LOCAL TAXES

- (a) Except as may be otherwise provided in this Contract, the Contract price shall be deemed to include all applicable Federal, state and local taxes and duties.
- (b) If a statute, court decision, written ruling or regulation regarding any Federal excise tax or duty on the transactions or property covered by this Contract takes effect after the Contract date, and:
- (c) Results in the Contractor being required to pay or bear the burden of any such Federal excise tax or duty or rate increase that would not otherwise have been payable on such transactions or property, the Contract price shall be increased by the amount of such tax or duty or rate increase, if the Contractor warrants in writing that no amount for such newly imposed Federal obligation was included in the Contract price as a contingency reserve or otherwise; or
- (d) Results in the Contractor not being required to pay or bear the burden of, or in its obtaining a refund or drawback of, any Federal excise tax or duty that would otherwise have been payable on such transactions or property or that was the basis of an increase in the Contract price, the Contract price shall be decreased by the amount of the relief, refund, or drawback, or that amount shall be paid to the Authority, as the Contracting Officer directs. If the Contractor fails to follow the Contracting Officer's instructions, it will be required to pay or bear the burden of, any such Federal excise tax or duty through a decrease in the Contract price.
- (e) Paragraph (b) above shall not be applicable to social security taxes or to any other employment tax.
- (f) No adjustment of less than \$250 shall be made in the Contract price pursuant to paragraph (b).
- (g) As used in paragraph (b), the term "Contract date" means the date the Contract was executed by the Authority. As to additional services, supplies or construction procured by modification to this Contract, the term "Contract date" means the effective date of such modification.
- (h) The Contractor shall promptly notify the Contracting Officer of matters that may result in either an increase or decrease in the Contract price under this clause and shall take action as the Contracting Officer directs. The Authority shall be entitled to a reduction in the Contract price reflecting such amount and a refund of monies paid related to such taxes, plus applicable interest.

2. <u>PUBLIC COMMUNICATION</u>

The Contractor shall not issue communications to the media, place advertisements, nor publicize through any means the services, goods or construction that it is providing to WMATA under this Contract, without prior written consent of the Contracting Officer. The Contractor shall not publish, in print or online, any communications products such as newsletters, press releases, blogs or other communications without the Contracting Officer's prior, written consent. Approval of any such requests shall be at the Contracting Officer's sole discretion.

3. CHOICE OF LAW, CONSENT TO JURISDICTION AND VENUE

- (a) This Contract shall be deemed to be executed in the District of Columbia, regardless of the domicile of the Contractor and shall be governed by and construed in accordance with the laws of the District of Columbia except to the extent, if any, superseded by Federal law.
- (b) The parties agree that any and all claims asserted by or against the Authority arising hereunder or related hereto shall be heard and determined either in the courts of the United States located in the District of Columbia, the State of Maryland or the Commonwealth of Virginia or in the courts of the District of Columbia, State of Maryland or Commonwealth of Virginia that maintain jurisdiction over such claims and where venue properly resides.

4. <u>SEVERABILITY</u>

If the Contract contains any unlawful provisions, the same shall be deemed of no effect, and shall upon the application of either party be stricken from the Contract without affecting the binding force of the Contract as it shall remain after omitting such provision.

5. <u>SURVIVAL</u>

Any provision expressly set forth as surviving the expiration or termination of this Contract, shall be deemed to survive any such expiration or termination.

CHAPTER XI – ADDITIONAL FEDERAL PROVISIONS

1. **NOTIFICATION OF FEDERAL PARTICIPATION- FTA**

This project is being funded in whole or part with Federal funds.

2. ALL NECESSARY FEDERAL PROVISIONS DEEMED INCLUDED- FTA

It is the intent of the parties that each and every provision of law required to be inserted in this Contract should be and is hereby inserted herein.

3. ACCESS TO THIRD PARTY CONTRACT RECORDS- FTA

- The Contractor agrees to provide the Authority, the FTA Administrator, the U.S. (a) Comptroller General or any of their authorized representatives, access to any of the Contractor's books, documents, papers and records that are directly pertinent to this Contract for the purposes of making audits, examinations, excerpts and transcriptions. The Contractor also agrees, pursuant to 49 C.F.R. §633.17 to provide FTA Administrator or his or her authorized representatives including any Project Management Oversight (PMO) Contractor access to Contractor's 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) The Contractor agrees to permit any of the foregoing parties to reproduce by any means whatsoever or to copy excerpts and transcriptions as reasonably needed.
- (c) The Contractor agrees to maintain all books, records, accounts and reports required under this Contract for a period of not less than three (3) years after the date of termination or expiration of this Contract. In the event of litigation or settlement of claims arising from the performance of this Contract, the Contractor agrees to maintain such records until the Authority, the FTA Administrator, the U.S. Comptroller General, or any of their duly authorized representatives, have disposed of all such litigation, appeals, claims or exceptions related thereto. [See 49 C.F.R. § 18.39(i)(11)].

4. <u>AMERICANS WITH DISABILITIES ACT ACCESSIBILITY – FTA</u>

[NOT APPLICABLE]

- (a) The Contractor agrees that it will operate public transportation services in compliance with 42 U.S.C. § 12101 et seq.; DOT regulations, "Transportation Services for Individuals with Disabilities (ADA)" using facilities and equipment that comply with 49 C.F.R. Part 37; and Joint ATBCB/DOT regulations, "Americans with Disabilities (ADA) Accessibility Specifications for Transportation Vehicles," 36 C.F.R. Part 1192 and 49 C.F.R. Part 38. Private entities must comply with the requirements of 49 C.F.R. Part 37 applicable to public entities with which they contract to provide public transportation services.
- (b) Facilities to be used in public transportation service must comply with 42 U.S.C. § 12101 *et. seq.*; DOT regulations, "Transportation Services for Individuals with Disabilities (ADA)," 49 C.F.R. Part 37; and Joint ATBCB/DOT regulations, "Americans with Disabilities (ADA) Accessibility Specifications for Transportation Vehicles," 36 C.F.R. Part 1192 and 49 C.F.R. Part 38.

5. RIGHTS IN DATA AND COPYRIGHTS — FTA

- (a) The term "subject data" used in this article means recorded information, whether or not copyrighted, that is delivered or specified to be delivered under this Contract. The term includes graphic or pictorial delineation in media such as drawings or photographs; text in specifications or related performance or design-type documents; machine forms such as magnetic tape, or computer memory printouts; and information retained in computer memory. Examples include, but are not limited to: computer software, engineering drawings and associated lists; specifications, standards, process sheets, manuals, technical reports, catalog item identifications, and related information. The term "subject data" does not include financial reports, cost analyses, and similar information incidental to Contract administration.
- (b) The following restrictions apply to all subject data first produced in the performance of this contract:
 - (1) Except for its or WMATA's own internal use, the Contractor may not publish or reproduce subject data in whole or in part, or in any manner or form, nor may the Contractor authorize others to do so, without the written consent of the U.S. Government, until such time as the Government may have either released or approved the release of such data to the public. This restriction on publication, does not apply to agreements with academic institutions;

March 5, 2018

- In accordance with 49 C.F.R. § 18.34 and 49 C.F.R.§ 19.36, the Federal (2) Government reserves a royalty-free, non-exclusive and irrevocable license to reproduce, publish, or otherwise use, and to authorize others to use, the following subject data for its purposes:
 - (i) Any subject data developed under this contract whether or not a copyright has been obtained; and
 - (ii) Any rights of copyright to which the contractor purchases ownership with Federal assistance.
- (c) When the Federal Transit Administration (FTA) provides financial assistance for a planning, research, development, or a demonstration project, it is FTA's general intention to increase mass transportation knowledge, rather than limit the benefits to participants in the project. Therefore, unless FTA determines otherwise, the Contractor agrees that, in addition to the rights set forth in subsection (b)(2) of this article, FTA may make available to any FTA recipient, sub-recipient, third party contractor, or third party subcontractor, either FTA's license in the copyright to the subject data derived under this Contract or a copy of the subject data first produced under this Contract. If this Contract is not completed for any reason whatsoever, all data developed under this Contract shall become subject data as defined in subsection (a) and shall be delivered as the Federal Government may direct.
- Unless prohibited by state law, the Contractor agrees to indemnify, save, and hold (d) harmless WMATA and the Federal Government, their officers, agents, and employees acting within the scope of their official duties against any liability, including costs and expenses, resulting from the Contractor's willful or intentional violation of proprietary rights, copyrights, or right of privacy, arising out of the publication, translation, reproduction, delivery, use, or disposition of any data furnished under this Contract. The Contractor shall not be required to indemnify WMATA and the Federal Government for any such liability arising out of the wrongful acts of their employees or agents.
- (e) Nothing contained in this article shall imply a license to WMATA or the Federal Government under any patent or be construed as affecting the scope of any license or other right otherwise granted to WMATA or the Federal Government under any patent.
- (f) The requirements of paragraphs (b) and (c), do not apply to material furnished by the Authority to the Contractor and incorporated in the work carried out under the contract provided that the Contractor identifies the incorporated material at the time of delivery of the work.
- Any dispute arising under this article shall be subject to the "Disputes" article of this (g) Contract.
- Notwithstanding any other payment provision in this Contract, the Contracting Officer (h) may retain from payments due and owing the Contractor up to 10 percent (10 %) of the contract price until final delivery and acceptance of the subject data defined in this article and as required to be furnished by the Price Schedule or the Contract's specifications.

6. **PATENT RIGHTS- FTA**

[NOT APPLICABLE]

7. **BUY AMERICA ACT- FTA**

- (a) The Buy America Act requirements apply to the following types of contracts: construction contracts, the acquisition of goods or rolling stock valued at more than \$150,000.00³
- (b) The Contractor agrees to comply with 49 U.S.C. § 5323(j) and 49 C.F.R. Part 661, which provide that Federal funds may not be obligated unless steel, iron, and manufactured products used in FTA funded projects are produced in the United States, unless a waiver has been granted by FTA or the product is subject to a general waiver. General waivers are listed in 49 C.F.R. § 661.7, and include final assembly in the United States for fifteen (15) passenger vans and fifteen (15) passenger wagons produced by the Chrysler Corporation, and microcomputer equipment and software. Separate requirements for rolling stock are set out at 49 U.S.C. § 5323(j)(2)(C) and 49 C.F.R. § 661.11. Rolling stock must be assembled in the United States and have a sixty-five percent (65%) domestic content.
- Contractor is responsible for flowing down these requirements to subcontractors at (C) every tier. The dollar threshold only applies to the prime contract. All subcontracts thereunder are subject to the Buy America Act requirements.
- A bidder must submit to WMATA the appropriate Buy America Act certification with (d) all offers on FTA funded contracts, except those subject to a general waiver. Bids that are not accompanied by the appropriate Buy America Act certification must be rejected as nonresponsive. This requirement does not apply to lower tier subcontractors.

8. PRE-AWARD AND POST DELIVERY AUDIT REQUIREMENTS - FTA

The Contractor agrees to comply with 49 U.S.C. § 5323(I) and FTA's implementing regulations at 49 C.F.R. Part 663 and to surprit the following certifications:

n Atta and submit a (a) Buy America Act Requirements. The Can declaration certifying either compliance or noncompliance when the up America Act. If the offeror certifies compliance with the Buy America Act, it shall submit documentation that lists 1) component and subcomponent parts of the rolling stock to be purchased identified by manufacturer of the parts, their country of origin and cost; and 2) the location of the final assembly point for the rolling stock, including a description of the activities that will take place at the final assembly point and the cost of final assembly.

 $^{^{3}}$ If the federal grant that funds this procurement was issued prior to 12/2014, then this amount is \$100,000.00.

- (b) *Solicitation Specification Requirements*: The Contractor shall submit evidence that it will be capable of meeting the proposed specifications.
- (c) *Federal Motor Vehicle Safety Standards (FMVSS):* The Contractor shall submit 1) manufacturer's FMVSS self-certification sticker information that the vehicle complies with relevant FMVSS or 2) manufacturer's certified statement that the contracted vehicles will not be subject to FMVSS regulations.

9. CHARTER BUS REQUIREMENTS- FTA

[NOT APPLICABLE]

10. SCHOOL BUS REQUIREMENTS- FTA

[NOT APPLICABLE]

11. BUS TESTING- FTA

[NOT APPLICABLE]

12. CARGO PREFERENCE- FTA

The Contractor agrees:

- (a) To utilize privately owned United States flag commercial vessels to ship at least fifty percent (50%) of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, materials, or commodities pursuant to this Contract if such vessels are available at fair and reasonable rates for United States flag commercial vessels;
- (b) To furnish within twenty (20) working days following the date of loading for shipments originating within the United States, or within thirty (30) working days following the date of loading 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 in paragraph (a) above to WMATA (through the Contractor in the case of a subcontractor's bills-of-lading) and to the Office of Cargo Preference, Maritime Administration (MAR-590), 400 Seventh Street SW, Washington, DC 20590;
- (c) To include these requirements in all subcontracts issued pursuant to this Contract when the subcontract may involve the transport of equipment, material, or commodities by ocean liner.

13. CLEAN AIR ACT- FTA

- (a) The Contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. §§ 7401-7671. The Contractor agrees to report each violation to the Authority and understands and agrees that the Authority will, in turn, report each violation as required to FTA and the appropriate EPA Regional Office.
- (b) The Contractor will comply with U.S. EPA Regulations "Control of Air Pollution from Mobile Sources," 40 C.F.R. Part 85; "Control of Emissions from New and In-Use Highway Vehicles and Engines," 40 C.F.R. Part 86; "Fuel Economy and Greenhouse Gas Exhaust Emissions of Motor Vehicles," 40 C.F.R. Part 600, as well as any applicable State Implementation Plans (SIP), and EPA regulations "Conformity to State or Federal Implementation Plans of Transportation Plans, Programs and Projects Developed, Funded or Approved Under Title 23 U.S.C. or Federal Transit Laws" 40 C.F.R. Part 93, along with other applicable Federal regulations.
- (c) Flow-down requirement. The Contractor also agrees to include this article in each subcontract exceeding \$150,000 financed, in whole or in part, with Federal assistance provided by FTA.

14. <u>CLEAN WATER ACT- FTA</u>

- (a) The Contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Water Act, as amended, 33 U.S.C. §§1251-1377. The Contractor agrees to report each violation to the Authority and understands and agrees that the Authority will, in turn, report each violation as required to assure notification to FTA and the appropriate EPA Regional Office.
- (b) The Contractor will protect underground sources of drinking water in compliance with the Safe Drinking Water Act of 1974, as amended, 42 U.S.C. §§300 (f)-(j).
- (c) The Contractor will comply with the notice of violating facility provisions in section 508 of the Clean Water Act, as amended, 33 U.S.C.§ 1368.
- (d) The Contractor will facilitate compliance with Executive Order 11738, "Providing for Administration of the Clean Air Act and the Federal Water Pollution Control Act with Respect to Federal Contracts, Grants or Loans," 42 U.S.C. §7606 note.
- (e) Flow-down requirement. The Contractor also agrees to include this clause in each subcontract exceeding \$150,000 financed, in whole or in part, with Federal assistance provided by FTA.

15. <u>RECOVERED MATERIALS/ RECYCLED PRODUCTS- FTA</u>

- (a) The Contractor 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 C.F.R. Part 247, and Executive Order 12873, as they apply to the procurement of the items designated in Subpart B of 40 CFR Part 247.
- (b) Flow-down requirement. The Contractor also agrees to include these requirements in each subcontract financed, in whole or in part, with Federal assistance provided by FTA.

16. <u>RETAINAGE</u>

No Retainage. No provision of this Contract shall serve to deny Contractor's entitlement to full payment for properly performed work or suitably stored materials. No amounts shall be withheld from any payment request submitted by Contractor based on percentage of the work performed during the period of performance and no amounts shall be assigned to the line items, other than as assigned by Contractor in its payment requests.

17. ENERGY CONSERVATION- FTA

- (a) The Contractor agrees to comply with mandatory standards and policies relating to the energy efficiency which are contained in the applicable state energy conservation plan issued in compliance with the National Energy Policy and Conservation Act, as amended, 42 U.S.C. § 6321, *et. seq.*
- (b) The Contractor agrees to perform an energy assessment for any building constructed, reconstructed or modified with FTA funds as required under FTA regulations, "Requirements for Energy Assessments." 49 C.F.R. Part 622.
- (c) The Contractor must include this clause in all subcontracts and sub-agreements at every tier.

18. CHANGES TO FEDERAL REQUIREMENTS- FTA

- (a) Contractor 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 Agreement (Form FTA MA (22) dated October 1, 2015) between the Authority and FTA, as they may be amended or promulgated during the term of this Contract. Contractor's failure to so comply shall constitute a material breach of this Contract.
- (b) Flow-down requirement. The Contractor agrees to include this Article in each subcontract financed in whole or in part with Federal Assistance provided by FTA. It is further agreed that the Article shall not be modified, except to identify the subcontractor who will be subject to its provisions.

19. FLY AMERICA REQUIREMENTS- FTA

- (a) The Contractor agrees to comply with 49 U. S. C. § 40118 (the "Fly America" Act) in accordance with the General Services Administration's regulations at 41 C.F.R. § 301-10, which provide that recipients and sub-recipients of Federal funds and their contractors are required to use U. S. Flag 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. If a foreign air carrier was used, the Contractor shall submit an appropriate certification or memorandum adequately explaining why service by a U. S. flag carrier was not available or why it was necessary to use a foreign air carrier and shall provide a certificate of compliance with the Fly America requirements.
- (b) Flow-down requirement. The Contractor agrees to include the requirements of this article in all subcontracts that may involve international air transportation.

20. PAYMENT DEDUCTIONS - NONCOMPLIANCE WITH DBE REQUIREMENTS- FTA

- (a) For Federally funded contracts that exceed \$150,000 and to which the Disadvantage Business Enterprise (DBE) Requirements (Appendix B) apply, the failure to perform in accordance with requirements of Appendix B may result in a partial or full suspension of payment, including progress payments, if applicable.
- (b) If the Contractor is found to be in noncompliance with the DBE requirements of Appendix B, the progress of the work shall also be deemed to be unsatisfactory, and an amount equal to the DBE participation in the Contract shall be retained from payment (or progress payments, if any) made to the Contractor.
- (c) If the contract value is over \$150,000, the prime contractor will be responsible for submitting a monthly report of the status of its DBE subcontractors as outlined in Appendix B to the Contracting Officer.
- (d) If the Contractor fails to submit the required monthly DBE reports, the Contracting Officer may suspend payment (or progress payments) until such time as the monthly reports are submitted and accepted by the Authority.

 WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

 Contract No.:
 FQ18050
 SUPPLY AND SERVICE CONTRACT (IDIQ)

21. GOVERNMENT-WIDE DEBARMENT OR SUSPENSION- FTA

- (a) The Contractor is bound by its certification contained in its bid that neither the Contractor its principals, or affiliates, are excluded or disqualified, from Federal contracting. The certification is a material representation of fact, relied upon by the Authority in entering into this Contract. If it is later determined that the Contractor knowingly rendered an erroneous certification, in addition to remedies available to the Authority, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment. The Contractor agrees to comply with the requirements of 2 C.F.R, part 180, subpart C as adopted and supplemented by U.S. DOT regulations at 2 C.F.R, part 1200 "Nonprocurement Suspension and Debarment," including any amendments thereto, Executive Orders Nos. 12549 and 12689 "Debarment and Suspension" 31 U.S.C. § 6101 note, and other applicable Federal laws, regulations or guidance regarding participation with debarred or suspended contractors throughout the term of this Contract.
- (b) Flow-down requirement. The Contractor agrees to include this article in all subcontracts at all tiers under this Contract requiring lower tier contractors to comply with Federal suspension and debarment requirements, and review the System for Award Management (SAM) at <u>www.sam.gov</u> in order to comply with U.S. DOT regulations at 2 C.F.R, Part 1200 prior to awarding any subcontract under this Contract.

22. INCORPORATION OF FEDERAL TRANSIT ADMINISTRATION (FTA) TERMS

- (a) The preceding provisions include, in part, certain standard terms and conditions required by the U.S. Department of Transportation (DOT), whether or not expressly set forth in other Contract provisions. All Contractual provisions required by DOT, as set forth in FTA Circular 4220.1F and FTA Master Agreement (23) October 1, 2016 or any revision thereto, are hereby incorporated by reference. Anything to the contrary herein notwithstanding, all DOT or FTA mandated terms shall be deemed to control in the event of a conflict with other provisions contained in this Contract. The Contractor shall not perform any act, fail to perform any act, or refuse to comply with any of the Authority's requests that would cause the Authority to be in violation of the FTA terms and conditions.
- (b) Flow-down requirement. The Contractor agrees to include this 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 the provisions.

23. NO FEDERAL GOVERNMENT OBLIGATIONS TO THIRD PARTIES- FTA

- (a) The Authority and the Contractor acknowledge and agree that, notwithstanding any concurrence by the Federal Government in or approval of the solicitation or award of this Contract, absent the express written consent by the Federal Government, it is not a party to this Contract and shall not be subject to any obligations or liabilities to the Authority, Contractor, or any other party (whether or not a party to that contract) pertaining to any matter resulting from this Contract.
- (b) Flow-down requirement. The Contractor agrees to include this 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.

24. FALSE STATEMENTS OR CLAIMS CIVIL AND CRIMINAL FRAUD- FTA

- (a) The Contractor acknowledges that the provisions of the Program Fraud Civil Remedies Act of 1986, as amended, 31 U. S. C. § 3801 *e.t seq.* and U. S. DOT Regulations, "Program Fraud Civil Remedies," 49 C.F. R. Part 31, apply to its actions pertaining to this Contract. Upon execution of this Contract, the Contractor certifies and affirms the truthfulness and accuracy of any statement it has made, it makes, it may make, or causes to be made, pertaining to this Contract or FTA assisted project for which this Contract is being performed. In addition to other penalties that may be applicable, the Contractor 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 the Contractor to the extent that it deems appropriate.
- (b) The Contractor 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 the Contractor, to the extent the Federal Government deems appropriate.
- (c) Flow-down requirement. The Contractor agrees to include this 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 the provisions.

25. LOBBYING- FTA

- (a) The Contractor agrees that it will not use Federal funds to influence any officer or employee of a Federal agency, member of Congress or an employee of a member of Congress or an officer or employee of Congress on matters that involve this Contract or the underlying grant or agreement, including any award, extension or modification.
- (b) Contractor agrees that it will comply with 31 U.S.C. § 1352, as amended, U.S. DOT regulations "New Restrictions on Lobbying" 49 C.F.R, Part 20, to the extent consistent with 31 U.S.C. § 1352, as amended and other applicable Federal laws, regulations and guidance prohibiting the use of Federal funds for any activity concerning legislation or appropriations designed to influence the U.S. Congress or a state legislature unless an exception exists in current Federal law.
- (c) Flow-down requirement. The Contractor agrees to include these requirements in all subcontracts at all tiers under this Contract.

26. <u>NATIONAL INTELLIGENT TRANSPORTATION SYSTEMS ARCHITECTURE AND</u> <u>STANDARDS-FTA</u>

[NOT APPLICABLE]

27. CONTRACTS INVOLVING FEDERAL PRIVACY ACT REQUIREMENTS- FTA

The following requirements apply to the Contractor and its employees that administer any system of records on behalf of the Federal Government under any contract:

- (a) The Contractor agrees to comply with, and assures the compliance of its employees with, the information restrictions and other applicable requirements of the Privacy Act of 1974, 5 U.S.C. § 552 (a). Among other things, the Contractor agrees to obtain the express consent of the Federal Government before the Contractor or its employees operate a system of records on behalf of the Federal Government. The Contractor understands that the requirements of the Privacy Act, including the civil and criminal penalties for violation of that Act, apply to those individuals involved, and that failure to comply with the terms of the Privacy Act may result in termination of the underlying contract.
- (b) The Contractor also agrees to include these requirements in each subcontract involving the administration of any system of records on behalf of the Federal government financed, in whole or in part, with Federal assistance provided by FTA.

28. PROGRESS PAYMENTS [NOT APPLICABLE]

29. <u>BONDING FOR CONSTRUCTION PROJECTS EXCEEDING \$150,000 – FTA</u> [NOT APPLICABLE]

- 30. BONDING REQUIREMENTS- GENERAL [NOT APPLICABLE]
- 31. <u>SEISMIC SAFETY FTA</u> [NOT APPLICABLE]

CHAPTER XII-WMATA POLICIES

1. <u>SAFETY REQUIREMENTS</u>

- The Contractor shall be responsible for ensuring compliance with the most stringent (a) provisions of the applicable statutes and regulations of the District of Columbia, State of Maryland, Commonwealth of Virginia or political subdivision where the work is being performed, as well as the METRO Construction Safety and Environmental Manual (1984, as amended) issued by the Authority, and the U.S. Department of Labor OSHA standards pertaining to the safe performance of the work. In the absence of a specific construction industry standard, the Contractor is required to comply with either an established OSHA General Industry Standard, National Institute for Occupational Safety and Health (NIOSH) guidelines, American Conference of Governmental Industrial Hygienists (ACGIH) guidelines, American National Standards Institute (ANSI) guidelines, the WMATA System Safety Program Plan, the WMATA Construction Safety and Environmental Manual, or the Metrorail Safety Rules and Procedures Handbook. For contracts where work will be performed on, or will interface with the Metrorail System, the Contractor shall also comply with the publication entitled "Metrorail Safety Rules and Procedures Handbook." In the event of a conflict between these guidelines and applicable Federal, State or local health and safety laws, regulations or standards, the more stringent standard shall apply. Further, the Contractor shall ensure that all methods of performing the work do not involve danger to the personnel working at the site, the public and private property, whether or not these methods are cited or indicated in the Contract. The Contractor shall immediately provide to the Contracting Officer, a copy of all citations and/or warnings of safety violations received from any Federal, State or local jurisdiction or agency thereof, and/or all notifications of safety violations from insurance companies. The Contractor shall also provide to the Contracting Officer, copies of any and all subpoenas, complaints or other documents relating to any law suit alleging safety violations.
- (b) The Contractor shall employ and assign a full-time Safety Superintendent for Contracts involving "safety sensitive" functions (See Combined Glossary attached hereto for a definition). [NOT APPLICABLE]
- (c) The Contractor shall provide, at the site of the work, a first aid kit which shall be fully equipped to meet the needs of the anticipated work force.
- (d) The Contractor shall follow all appropriate RAIL Operational Rules, Operational Administrative Procedures (OAPs), Standard Operational Procedures (SOPs) and General and Special Orders while on the operational railroad and all Start-Up Rules and Manager's Notices when in declared start-up areas.

2. PRE-EMPLOYMENT CRIMINAL BACKGROUND CHECK REQUIREMENT

[NOT APPLICABLE]

3. WORKPLACE VIOLENCE/ZERO TOLERANCE

Pursuant to Metro Policy/Instruction 7.8.3, all Metro Contractors and subcontractors at any tier must: (1) establish zero tolerance for acts of workplace violence for their employees and independent contractors, and (2) not retaliate against any of their employees or independent contractors for cooperating with investigations.



MID-ATLANTIC COOPERATIVE RIDER CLAUSE

The Mid-Atlantic Purchasing Team (MAPT) is the agreement between the Metropolitan Washington Council of Governments ("MWCOG") and the Baltimore Metropolitan Council ("BMC") to aggregate the public entity and non-profit purchasing volumes in the Maryland, Virginia and Washington, D.C. region ("region").

Format

A lead agency format is used to accomplish this work. The Lead Agency in this procurement has included this MAPT Cooperative Rider Clause in this solicitation indicating its willingness to allow other public entities to participate pursuant to the following Terms and Conditions:

- 1. Terms
 - 1.1 Participating entities, through their use of the Cooperative Rider Clause, agree to the terms and conditions of the resulting contract to the extent that they can be reasonably applied to the participating entity.
 - **1.2** Participating entities may also negotiate additional terms and conditions specific to their local requirements upon mutual agreement between the parties.
- 2. Other Conditions Contract and Reporting
 - 2.1 The contract resulting from this solicitation shall be governed by and "construed in accordance with the laws of the State/jurisdiction in which the participating entity officially is located;
 - 2.2 To provide to MWCOG and/or BMC contract usage reporting information, including but not limited to quantity, unit pricing and total volume of sales by entity, as well reporting other participating entities added on the contract, on demand and without further approval of contract participants;
 - 2.3 Contract obligations rest solely with the participating entities only;
 - 2.4 Significant changes in total contract value may result in further negotiations of contract pricing with the lead agency and participating entities.

In pricing and other conditions, vendors are urged to consider the broad reach and appeal of MAPT with public and non-profit entities in this region.

A list of the participating members of the Mid-Atlantic Purchasing Team can be found at the following web links <u>www.mwcog.org/purchasing-and-bids/cooperative-purchasing/member-links/</u> and <u>http://www.baltometro.org/our-work/cooperative-purchasing/brcpc-representatives</u>

APPENDIX A

TECHNICAL SPECIFICATIONS

SCOPE OF WORK

TECHNICAL SPECIFICATIONS

SCOPE OF WORK

This procurement shall provide The Authority the necessary materials to systematically repair or replace Traction Power system, Automatic Train Control (ATC) system, Communication system and/or other electrical systems.

The Authority is <u>self-performing the installation</u> of multiple cable in and around the rail system. This Indefinite Delivery/Indefinite Quantity (IDIQ) contract is for the "supply only" of the required cable types.

Cable must meet the specification requirements and quality assurance standards for all cable furnished. Vendor shall provide a submittal for each cable listed on Unit Price Schedule for review and approval by the Authority.

1. Delivery and Handling

Please also see Chapter III (9. F.O.B. Destination)

The Vendor shall perform deliver/handle all of the following:

- 1.1 Deliver to WMATA on a flatbed truck to a WMATA warehouse location.
- 1.2 Shall closely coordinate with the Authority with respect to scheduling of cable deliveries, as the Authority has limited secure and dry storage facilities.
- 1.3 Shall provide tracking numbers for all shipments.
- 1.4 Shall contact WMATA 48 hours in advance of any delivery.
- 1.5 Shall provide packing slips for all shipments, in which every packing slip shall contain the following:
 - WMATA Purchase Order (PO) number
 - Project Name
 - Each reel shall be marked by painted stencil

(paper marker on the reel is not acceptable);

Each Reel Delivered – Shall be itemized		
List Shall consist all of the following		
Contract Number	Unique Reel Identification Number	
The date manufactured	Lot number	
Amount of feet on the reel		

- Each cable shall be marked "WMATA" in addition to the same information as marked on each reel.
- Each cable type (strand count) and cable length.

i.e. 127 stands shielded or non-shielded, 427 shielded or non-shielded, 1000kcmi or 1500kcmil.

• Reference to the specific report covering the test completed on the lot to be delivered.

1.6 Fiber Optic

1.6 (a) A copy of the certified test report(s) to be shipped with cable and a copy of the certified test report(s) must be sent to the COTR 48 hours prior to any delivery.

The COTR shall provide the contractor with notification to deliver the cable after receipt of the certified test report(s) for all cable reels in the lot to be delivered.

- 1.6(b) In addition, the wire shall have a label which is laminated or metal tag secured to the wire such that it will not come off during shipment. The label shall contain the same information as marked on the reel. The marking on the wire itself shall remain as specified herein.
- 1.6(c) The end of the wire shall have a boot securely fastened to each end such that it provides protection for the wire ends water, environmental, weather and would be used by WMATA as an indication that no cable has been use off of the reel.
- 1.6(d) Corrugated Steel Armor Fiber Optic Cable, vendor shall label each reel of fiber optic cable in semi-permanent manner, on both sides of reel with the following (also listed above in 1.5).

Each Reel Delivered – Shall be itemized List Shall consist all of the following

- Unique Reel Identification Number Provided by the Authority, after contract award, to facilitate tracking of on-reel and all subsequent testing.
- Fiber count of the cable (for example: 288 strand)
- Extract jacket length of cable on the reel as shipped.
- Beginning and end jacket footage marker numbers.
- 1.6(e) Each label shall be a durable placard or label able to withstand water, snow, ice, wind, and normal shipping and installation handling.
- 1.6(f) Each cable reel shall have a nominal 800 It length for 1500 kcmil and 1000 it for 1000 kcmil and ATC and other Power cables +1-5%.
- 1.6(g) The reel size shall not exceed 60" diameter for all cable types.
- 1.6(h) Each reel of fiber optic cable delivered under this contract shall conform to the following size and weight restrictions: Each reel of cable shipped shall be no more than seven foot four inches in diameter (88 inches), five feet in width (60 inches), and weigh no more than 7,500 pounds in weight when fully loaded with cable and protective lagging.
- 1.6(j) Each reel of 288 strand fiber optic cable shall contain a single continuous length of cable, with a minimum length of 15,000 feet. Each reel of 24 strand fiber optic cable shall contain a single continuous length of cable with a minimum lengthy of 30,000 feet.

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WMTA is not responsible for loss or damage to cable reels and/or any materials referenced in the Price Schedule Sheet, prior to delivery and acceptance at the delivery point designated by WMATA.

2. Return of Material

The vendor shall process all requests for replacement or defective parts within a two week time frame.

3. Deliverables

Please also see Chapter III (10. Quality Assurance/Quality Control)

The Vendor shall provide all documents and test files as described in special provisions. Vendor shall also provide Quality Control or Quality Assurance documentation (such as test results, certifications, etc.) from the material manufacturer(s) where applicable.

4. **Performance and Acceptance Criteria**

Unless otherwise specified, all material(s) shall be new and delivered to the Authority in original manufacturer packaging with the manufacturer's part number displayed on the outside of the packaging.

Materials furnished by vendor shall conform to the specifications of this agreement, be of good quality and free of faults and defects, and be in accordance with the requirements of all applicable government authorities.

Cables <u>"must"</u> meet the specification requirements and quality assurance standards for all cable furnished. Vendor shall provide shop drawings and testing reports for each part listed on Unit Material shipped to WMATA shall be inspected prior to acceptance by WMATA.

5. Technical Specifications

All material shown on the Unit Price schedule (UPS) is the Authority's preferred solution.

All references to "installation" are only as an example of WMATA's installation process. All installation components of technical specifications have been strike-through as installation of the cable is **NOT IN CONTRACT** (N.I.C).

All materials shall meet the technical requirements detailed in this section (APPENDIX A).

All fiber optic cable delivered under this contract shall be certified as NFPA-130 2014 compliant and comply with the Low Smoke, Zero Halogen (LSZH) requirements. Submit appropriate cut sheets and sample for all cabling.

6. Performance Schedules

If requested by the Authority, then vendor shall initiate a project kick-off meeting within 10 day of Notice to Proceed (NTP).

Deliveries shall start within 30 days of contract NTP or as agreed to between vendor and Authority.

7. Delivery Location

<u>WMTA #390</u> 6901 Distribution Drive Beltsville, MD 20705

Contractor shall not automatically ship supplies/materials unless (as indicated above deliver/handling) the PO, Project name, itemized listed and cable type/cable length, are all indicated.

Earlier deliveries may be coordinated and accepted by sending an email request to: <u>snhicks@wmata.com</u>

- Advance notice of a minimum of 24 hours is required before delivery.
- Preferred delivery time is 10:00 AM; acceptable between 7:00 AM to 12:00 Noon.
- Delivery trailer must be open sided to allow access with a forklift.
- Each delivery shall be no more than 10 reels of cable per day.
- Contractor shall provide copies of all delivery receipts to the COTR within 48 hours of a cable delivery.

8. First Article Inspection

Please also see Terms & Conditions, Chapter III (First Article Inspection)

(a) For the First Article Testing, the contractor shall deliver one (1) reel each as follows:

UPS Item		<u>One (1) Reel</u>	<u>CLASS</u>	
1	1000	Lineal foot +/-5% reel of 1000 kcmil	D	(127) Shielded Cable
3	800	Lineal foot +/5% of the 1500 kcmil	D	(169) Non-shielded

UPS Item	<u>One (1) Reel</u>		
53	5000 Lineal foot +/-5% reel of 2C #14 WZ Cable		
N/A	and one (1) additional reel of cable as directed by the Authority (type to be determined).		

UPS Item		<u>One (1) Reel</u>	
12	1000	Lineal foot +/-5% reel of 12 AWG	Single-conductor Cable
	and one (1) additional reel of cable as directed by the Authority (type to be determined).		

The Contractor shall notify the Authority Representative within 30 calendar days when initial production of the First Article is scheduled to begin. The Authority reserves the right to inspect the Contractor's manufacturing facility for first article acceptance. The Characteristics that the first article must meet and the testing requirements are specified elsewhere in this contract. Whether or not, the Authority Representative elects to visit the manufacturing facility for first article acceptance, the Contractor shall sufficiently document the first article acceptance including all test reports and submit a certified report to the Authority Representative along with the cable reels noted above for Authority testing and physical inspection. The Authority will complete physical inspections of the reel, cable packaging, and shipping documentation as outlined herein. Any cable produced before the requirements of the contract are met for first article acceptance shall be at the sole risk of the Contractor.

- (b) Should an Authority Representative visit the manufacturing facility for first article acceptance, the Authority Representative shall promptly notify Contractor of the conditional approval, approval, or disapproval of the first article which shall be confirmed in writing. The notice of conditional approval or approval shall not relieve the Contractor from complying with all requirements of the specifications and all other terms and conditions of this contract. A notice of conditional approval shall state any further action required of the Contractor. A notice of disapproval shall cite the reasons for the disapproval.
- (c) Within 10 days after the Authority receives the first article, the Contracting Officer shall notify the Contractor, in writing, of the conditional approval, approval, or disapproval of the first article. The notice of conditional approval or approval shall not relieve the Contractor from complying with all requirements of the specifications and all other terms and conditions of this contract. A notice of conditional approval shall state any further action required of the Contractor. A notice of disapproval shall cite the reasons for the disapproval.
- (d) If the first article is disapproved, the Contractor, upon Authority request, shall submit an additional first article for testing. After each request, the Contractor shall make any necessary changes, modifications, or repairs to the first article or select another first article for testing. All costs related to these tests are to be borne by the Contractor, including any and all costs for additional test following a disapproval. The Contractor shall furnish any additional first article to the Authority under the terms and conditions and within the time specified by the Authority. The Authority shall act on this first article within the time limit specified in paragraph (b) above. The Authority reserves the right to require an equitable adjustment of the contract price for any extension of the delivery schedule or for any additional costs to the Authority related to these tests.
- (e) If the Contractor fails to deliver any first article within the <u>120 calendar days</u> of contract award or the Contracting Officer disapproves any first article, the Contractor shall be deemed to have failed to make delivery within the meaning of the Defaults clause of this contract.

Fiber Optic Cable, the first delivery item no. 64 and #65 (Corrugated Steel Fiber Optic Cable 24 and 288 Fiber Single Mode) <u>must be delivered within 45 calendar days</u> after first delivery.

- (f) Unless otherwise provided in the contract, the Contractor-
 - (1) May deliver the approved first article as a part of the contract quantity, provided it meets all contract requirements for acceptance and was not consumed or destroyed in testing; and
 - (2) Shall remove and dispose of any first article from the Authority test facility at the Contractor's expense.
- (g) If the Authority does not act within the time specified above, the Contracting Officer shall, upon timely written request from the Contractor, equitably adjust under the Changes clause of this contract the delivery or performance dates and/or the contract price, and any other contractual term affected by the delay.
- (h) The Contractor is responsible for providing operating and maintenance instructions, spare parts support, and repair of the first article during any first article test.
- (i) Before first article approval, the acquisition of materials or components for, or the commencement of production of, the balance of the contract quantity is at the sole risk of the Contractor. Before first article approval, the costs thereof shall not be allocable to this contract for (1) progress payments, or (2) termination settlements if the contract is terminated for the convenience of the Authority.
- (j) The COTR and/or other Authority representative(s) will inspect the first article (preproduction sample) against the specification and shop drawings as well as test its fit in the field. A written report will be forwarded to the contractor in accordance with (b) above.

SECTION 16128

WIRE AND CABLE FOR TRACTION POWER

PART 1 - GENERAL

1.01 SUMMARY

- A. This section specifies furnishing, installing and testing wire and cable.
- B. Compensation for work specified in this section will be made in the following manner and in accordance with the Unit Price Schedule:
 - 1. Wire and Cable Materials: Lump Sum.
 - 2. Installation: Lump Sum.

C. Related sections include:

	SECTION	Description	
1.	16051B	Scope of work	Traction Power
2.	16052	Basic Materials and Methods	Traction Power
3.	16260	Uninterruptible Power System (Static)	
4.	16261	Transformer-Rectifier Units	Traction Power
5.	16294	Contact Rail Heating System	Traction Power
6.	16322	High Voltage AC Switchgear (34.5kv)	Traction Power
7.	16341	Metal-Enclosed DC Switchgear	Traction Power
8.	16441	Drainage and Negative Switchboard	Traction Power
9.	16451	Substation Busways	Traction Power

1.02 REFERENCES

- A. Codes, Regulations, Reference Standards and Specifications:
 - 1. Codes and regulations of the jurisdictional authorities.
 - 2. NEC.
 - 3. ICEA: S-66-524, S-68-516, S-19-81, T-33 655.
 - 4. IEEE: 383
 - 5. NEMA: WC7, WC8.
 - 6. ASTM: B3, B8, B33, D471, B173, E662.
 - 7. UL: 44, 224, 1581, 1569, 1685
 - 8. NFPA 130 and 502

1.03 SUBMITTALS

- A. Submit the following for approval in accordance with the Special Conditions and with the additional requirements as specified for each:
 - 1. Shop Drawings: Submit shop drawings for each type of cable in accordance the requirements of Div. 01
 - 2. Samples: Specified smoke-density test sample will become property of the Authority.
 - 3. Certification:
 - a. Certified flame retardancy test reports and data for tests performed not more than 36 months prior to submittal, for materials which are identical to those of cable furnished.
 - b. Submit smoke-density test reports and data from tests performed not more than 36 months prior to the submittal for materials which are identical to those of the furnished cable.
 - c. Certified test reports demonstrating that cable complies with specified requirements and those of referenced ICEA and NEMA Standards.
 - Certificates from manufacturers verifying that products conform to specified requirements. Include certificate with submittal of shop drawings and with each cable shipment.

1.04 QUALITY ASSURANCE

- A. Qualifications: Select a manufacturer who is regularly engaged in production of similar wire and cable, particularly suitable for the harsh environment of Railway/ Transit industry operation in USA.
- B. For Codes, Regulations, Reference Standards and Specifications, refer to Article 1.02.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Mark each single-conductor cable and each multiple-conductor cable to show UL label, size, voltage, manufacturer and number of conductors or phases in accordance with NEC requirements.
- B. Ship each unit securely packaged and labeled for safe handling and shipment.
- C. Store products in a dry and secure facility.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. General Requirements for all Single-Conductor and Multiple-Conductor Cable:
 - 1. Type and size: Type I cable having low smoke generating characteristics.
 - 2. Conductors: Type I cable having low smoke generating characteristics.
 - a. ASTM B3 or ASTM B8 annealed copper.
 - b. Size 10 AWG and smaller: Solid or Class B or Class C stranded.
 - c. Size 8 AWG and larger: Class B stranded, unless otherwise specified.
 - d. Other constructions as specified.
 - 3. Standards: Except as modified, wires and cable complying with the following standards:
 - a. Cross-linked polyethylene (XLPE) insulated cable: ICEA S-66-524, NEMA WC7.
 - b. Other cable: ICEA S-68-516, NEMA WC8.
 - 4. Nonmetallic jacket for single-conductor cable and individual conductors of multiple-conductor cable and as overall covering on multiple-conductor cable:
 - a. Cross-linked polyethylene (XPLE) or cross-linked polyolefin unless otherwise specified.
 - Cross-linked polyolefin complying with the following physical requirements. Properties tested in accordance with Part 6 of ICEA S-68-516, NEMA WC8 if ethylene-propylene-rubber (EPR) insulation is used, or with Part 6 of ICEA S-66-524, NEMA WC7 if cross-linked polyethylene insulation is used. Jacket material free of PVC and PVC-based compounds.
 - a. Tensile strength, minimum pounds per square inch: 1,800.
 - b. Elongation at rupture, minimum percent: 150.
 - c. Aging requirement: After 168 hours in air oven test at 100C, plus or minus 1 degree C:
 - 1) Tensile strength, minimum percentage of unaged value: 100.
 - 2) Elongation at rupture, minimum percentage of unaged value: 80.

- d. Oil immersion: 18 hours at 121degree C, plus or minus one degree C, ASTM D471, Table 1, No. 2 oil:
 - 1) Tensile strength, minimum percentage of unaged value: 80.
 - 2) Elongation at rupture, minimum percentage of unaged value: 80.
- e. Jacket materials other than cross-linked polyolefin complying with ICEAS-68-516, NEMA WC8. Jacket material free of PVC and PVC-based compounds.
- 6. Flame retardancy: Single-conductor and multiple-conductor cable demonstrating flame retardancy in accordance with IEEE-1202/FT4.
 - a. Single-conductor cable and individual conductors of multiple-conductor cable passing vertical flame test. Cable size for testing: 14 AWG.
 - b. Single-conductor cable, Size 1/0 AWG and larger, passing vertical tray flame test, using ribbon gas burner in accordance with UL 44. Cable size for testing: 1/0 AWG.
 - Multiple-conductor cable passing vertical tray flame test, using ribbon gas burner. Cable size for testing: 7/C or 9/C with 12 AWG or 14 AWG conductors.
- 7. Applied Voltage testing:
 - a. Single-conductor cable and individual conductors of multiple-conductor cable to be given applied ac voltage dielectric strength test, i.e., six-hour water immersion test.
 - b. For single conductors of multiple-conductor cable, conduct tests prior to assembly as multiple-conductor cable
 - c. Test procedures:
 - Cross Linked Polyethylene-insulated conductors: In accordance with paragraphs 6.14.1, 6.14.2, 6.14.5, and 3.5.2 of ICEA S-66-524.
 - 2) EPR- insulated conductors: In accordance with paragraphs 3.5.2, 6.27.1 and 6.27.2 of ICEA S068-516.

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- B. Smoke generation: Single-and-multiple-conductor cable jacket materials demonstrating low-smoke generation when tested in accordance with ASTM E662 by independent, nationally recognized testing agency.
 - 1. Conduct tests on specimens of overall jacket material for multiple-conductor cable and of jacket material for single-conductor cable.
 - 2. Prepare slab specimens for each material .100 inch, plus-or-minus .005-inch thick, identical to those of finished cables and meeting minimum physical requirements specified.
 - 3. Prior to testing, submit six-inch square portion of each specimen. Tag sample with manufacture's jacket or insulation identification code or number.
 - 4. Test values for cross-linked polyolefin not to exceed the following:
 - a. Flaming mode:
 - Uncorrected maximum specific optical density during first four minutes of test: 150.
 - Uncorrected maximum specific optical density for entire 20-minute test: 300.
 - b. Non flaming mode:
 - Uncorrected maximum specific optical density during first four minutes of test: 150.
 - Uncorrected maximum specific optical density for entire 20-minute test: 300.
 - 3) Other conductors: In accordance with paragraphs 3.5.2, 6.27.1 and 6.27.2 of ICEA S-68-516.
- C. 15 or 35 kV Single-Conductor Cable:
 - 1. Rated voltage: As marked on the cable.
 - 2. Conductor: As specified and with an extruded semi-conducting strand screen.
 - Insulation: Ethylene-propylene rubber, 133 percent insulation level, with an extruded semi-conducting insulation screen.
 - 4. Shield: Copper tape, minimum thickness 2.5 mils continuously applied over the cable with overlap of at-least 25% of tape width.
 - 5. Jacket: Overall nonmetallic jacket of Chlorosulfanated polyethylene or crosslinked polyolefin.

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- D. 2000-Volt Single-Conductor Cable:
 - 1. Rated voltage: 2000 volts.
 - 2. Conductor:
 - a. Extra-flexible, 1000/1500 KCMIL cable, Class G stranded.
 - b. Standard duty, 1000/1500 KCMIL cable, Class D stranded.
 - c. 6 AWG cable for surge arrester grounding.
 - d. 8 AWG for Heat tape
 - 3. Insulation: Ethylene-propylene rubber, ICEA Type II, 90 degree C, suitable for dry and wet locations.
 - 4. Jacket: Overall nonmetallic, cross-linked polyolefin. jacket of T-33-655 thermoset type II
 - 5. UL labeling: Type RHW-2.
 - 6. Additional requirements:
 - a. Insulation power factor: Two percent maximum.
 - Bond jacked to insulation to prevent moisture pockets. Minimum peel strength of the jacket from insulation: Four pounds per inch width for cross-linked polyolefin, and 10 pound per inch for heavy-duty neoprene.
- E. 2000-Volt, Aluminum-Sheathed Multiple-Conductor Cable for Polarity Reference for Tie Breaker Stations:
 - 1. Individual conductors:
 - a. Rated voltage: 2000 volts.
 - b. Conductor Size: 6 AWG, Class B stranded.
 - c. Number of conductors: As shown.
 - d. Insulated with ethylene-propylene-rubber, with nonmetallic jacket.
 - e. UL-listed as Type RHW-2 or XHHW-2.
 - f. Insulation power factor: Two percent maximum.
 - g. Bond jacket to insulation to prevent moisture pockets. Minimum peel strength of the jacket from insulation: Four pounds per inch width for Chlorosulfanated polyethylene or cross-linked polyolefin and 10 pound per inch for heavy-duty neoprene.

- 2. Conductors assembled with non-wicking, flame-retardant filler to form cable of circular cross section.
- 3. Metallic-sheath:
 - a. Continuous corrugated sheath in accordance with ICEA S-19-81, Table 4-26A or UL 1569.
- 4. Jacket: Overall nonmetallic jacket of T-33-655 thermoset type II or cross-linked polyolefin.
- 5. Cable UL-listed: Type MC, suitable for wet and dry locations.
- 6. Color coding:
 - a. Individual conductors shall be black. 600-Volt, Single-Conductor Cable:
- F. 600-Volt, Single-Conductor Cable:
 - 1. Rated voltage: 600 volts.
 - Insulated with jacketed ethylene-propylene-rubber with nonmetallic jacket ULlabeled Type RHW or unjacketed filled cross-linked polyethylene, UL-labeled Type XHHW-2 or RHW-2.
 - 3. Color coding: In accordance with paragraphs 200-6, 200-7 and 210-5 of the NEC.
- G. 600-Volt, Nonmetallic Sheathed Multiple-Conductor Cable:
 - 1. Individual conductors:
 - a. Rated voltage: 600 volts.
 - b. Number of conductors: As shown.
 - c. Construction: Complying with one of the following:
 - 1) Insulated with ethylene-propylene-rubber, with nonmetallic jacket.
 - 2) Insulated with composite compound of ethylene-propylene-rubber and polyethylene, UL Class EPCV, without outer jacket.
 - 3) Insulated with filled cross-linked polyethylene without outer jacket.
 - d. Phase and neutral conductors: Individually insulated.
 - e. Neutral conductors: Same size as phase conductors.
 - f. Insulated ground conductors: Sized in accordance with the NEC, unless otherwise shown.
 - g. UL-listed as Type RHW-2 or XHHW-2.

- 2. Conductors assembled with non-wicking, flame-retardant filler to form cable of circular cross section.
- 3. Multiple-conductor cable provided with overall nonmetallic jacket of T-33-655 thermoset type II or cross-linked polyolefin.
- 4. Cable UL-listed as follows:
 - a. Nonmetallic-sheathed cable: Type TC, suitable for wet and dry locations.
- 5. Color coding:
 - a. Power cables: In accordance4 with paragraph 200-6, 200-7 and 210-5 of the NEC.
 - b. Control cables: In accordance with ICEA S-66-524, Table K-2.
- H. 600-Volt, Aluminum-Sheathed Multiple-Conductor Cable (ALS).
 - a. Individual conductors:
 - a. Rated voltage: 600 volts.
 - b. Number of conductors: As shown.
 - c. Construction: Complying with one of the following:
 - 1) Insulated with ethylene-propylene-rubber, with nonmetallic jacket.
 - 2) Insulated with composite compound of ethylene-propylene-rubber and polyethylene, UL. Class EPCV, without outer jacket.
 - 3) Insulated with filled cross-linked polyethylene without outer jacket.
 - d. Phase and neutral conductors: Individually insulated.
 - e. Neutral conductors: Same size as phase conductors.
 - f. Insulated ground conductors: Sized in accordance with the NEC, unless otherwise shown.
 - g. UL-listed as Type RHW-2 or XHHW-2.
 - b. Conductors assembled with non-wicking, flame-retardant filler to form cable of circular cross section.
 - a. Metallic-sheath: Provide continuous corrugated sheath in accordance with ICEA S-19-81, Table 4-26A.
 - c. Multiple-conductor cables provided with overall non-metallic jacket of T-33-655 thermoset type II or cross-linked polyolefin.

- d. Cable UL-listed as follows:
 - a. Metallic-sheathed cable: Type MC, suitable for wet and dry locations.
- e. Color coding:
 - a. In accordance with ICEA S-66-524, Table K-2.
 - b. Power cables: In accordance with ICEA S-66-524, Table K-1.
- I. Instrumentation Cable: 2/C, twisted pairs:
 - 1. Individual conductors:
 - a. Rated voltage: 600 volts.
 - b. Number of conductors: As shown.
 - c. Construction: Insulated with polyethylene insulation.
 - 2. Conductors twisted and covered with a tinned copper braided shield; Class B stranded.
 - 3. Provided with overall jacket.
- J. Bare Conductor: ASTM B3, annealed copper conductor; 8 AWG and larger, Class B stranded.
- K. Medium Voltage Cable Terminations:
 - 1. Except as otherwise specified, heat shrinkable tubing kit type, with grounding accessory kits, in accordance with the characteristics of the medium voltage cable shall be furnished.
 - a. Shrinkable tubing kits to be pre-stretched shrinkable tubing and shall contain all necessary components to reinstate cable insulation, metallic shielding/grounding system and overall jacket.

- L. Cable Pulling Calculations:
 - The Contractor shall perform pulling calculations in accordance with the cable manufacturer's recommendations, and these specifications. The calculations shall be made by an Electrical Engineer registered in the State of Maryland, or State of Virginia (depending on the location), and District of Columbia, depending on the location and bear the seal and signature of the engineer who is responsible for the calculations. Calculations shall be made for all conductors including DC power cable, 15kV cable, and multi conductor control cable when installed in conduit under the following conditions:
 - a. The conduit run exceeds 100 feet vertically;
 - b. The conduit run exceeds 300 feet horizontally; and
 - c. The conduit run contains a total of over 180 degrees of bend.
 - 2. The Contractor shall also provide calculations for any additional run under any condition when requested by the Engineer. The calculations shall establish that the Contractor's cable installation can be implemented without damage to any wire or cable.
 - 3. For pulling calculations, consideration shall be given to the following parameters fill, coefficient of friction, clearance configuration, jam ratio of the cables and conduit, weight correction factor, bend radii, training of cables on entering and existing the conduits, maximum allowable tension, sidewall load, the method of attaching the conductors to the pulling equipment, and weight of the cables. These factors shall be calculated for each pull as required. The contractor shall not exceed the maximum allowable values of sidewall pressure, pulling strain on conductors or sheath, limits of pulling device, and pulling tension.

- 4. In general, the Contractor shall not exceed the following guidelines:
 - a. The maximum pulling strain on the cable with a pulling eye attached to the conductors is a function of the conductor area as follows:
 TM = 0.008 x n x CM., where TM = Maximum tension (lbs),
 n = number of conductors, CM = area of each conductor circular miles.
 - b. When a basket-weave grip is used in lieu of a pulling eye, the maximum tension shall not exceed the value calculated for the pulling eye method or 1000 lbs per grip, whichever is less.
 - c. The sidewall pressure loads shall not exceed 300 lb. /ft. of bend radius, or the Wire and Cable Manufacturer's recommendation, whichever is less.
 - d. The jam ratio shall not fall between 2.8 and 3.2.
 - e. The coefficient of the friction for the cables with lubrication shall be taken to be 0.5.
- 5. Cable pulling calculations shall be submitted to the Engineer for approval. Cable shall not be installed until the contractor receives approval from the Engineer for the pulling calculations and cable installation.

PART 3 EXECUTION N.I.C

3.01 NSTALLATION



- A. Install wires and cable as indicated. Install all wiring continuous, without splices, between terminations, except as otherwise noted.
- B. Install single-conductor cable in conduit or cable tray as shown. Install UL Type TC multiple-conductor cable in cable trays. Install UL Type MC multiple-conductor cable and ground cable on channel inserts, cable trays or racks, using straps and fasteners as specified in Section 16052 (Basic Materials and Methods). Install UL Type MC multiple-conductor cable in conduit where shown or required. On walls or ceilings, fasten cable directly to channel inserts, or use expansion bolt anchors to attach to concrete and toggle bolts to attach to concrete masonry walls.
- C. Use nylon straps to bundle and secure wire and cable located in panelboards, cabinets, switchboards, and switchgear and control panels.
- D. Minimum bending radius 12 times outer diameter of cable. Where shown, use shorter bending radius as permitted by NEC, Appendix H of ICEA S-66-524, NEMA WC7 and cable manufacturer.
- E. To facilitate pulling cable, use UL-listed lubricant recommended by cable manufacturer.
- F. Use polyethylene or other suitable nonmetallic rope for pulling cable.
 Attach to cable by means of either woven basket grips or pulling eyes attached directly to the conductors.
- G. In damp and dusty indoor locations, manholes and outdoor locations, seal cable at conduit termination using duct sealing compound.
- H. Support cable installed in manholes at each invert location with cable brackets, racks and insulators specified in Section 16052 (Basic Materials and Methods).
 Provide brackets of suitable length with one insulator for each cable.

- Support traction power cable installed in vertical risers with nonmetallic cable grip support at top of riser and with nonmetallic or aluminum multiple segment wedging plug type cable support at intermediate pull box provided as specified in Section 16052B (Basic Materials and Methods)
- J. Where shown or necessary, install cable seal fitting specified in Section 16052B to prevent entry of water into electrical facilities. Where approved, use seal compound specified in Section 16052B (Basic Materials and Methods).
- K. Terminate medium voltage cable, using the specified termination kits, in accordance with the manufacturer's recommendations.
- L. The splicing of power and control cables is not permitted in duct banks, cable troughs or cable trenches. However, if permitted by the Engineer, make watertight splices as approved.
- M. The Contractor shall hook up 1000 KCMIL traction power cables at switchgear end and trackside (negative and positive rails) when directed by the Engineer.
- N. All 1000 KCMIL cables shall be secured at every rung on the cable tray with tie wraps.
- O. Identify cable terminations, feeders, power and control circuits using the following:
 - 1. Cable Tags: Stainless steel tags punched with conduit or cable number as shown.
 - 2. Wire Labels: Sleeve-type, heat shrinkable, flame retardant Raychem TMS product line, Type XPE or equal and conforming to UL 224. Wire identification same as corresponding terminal block identification unless otherwise shown. The labels on 1000 KCMIL cable shall be clear, heat shrinkable with 1/2" height yellow lettering stamped on inside. The labels shall have reference of substation or tie breaker station breaker Supervisory control ID number and cable sequence in the branch of the feeder (e.g. BRK. 32-A) at both ends.
 - 3. Attach tags to cable with slip-free plastic lacing or nylon bundling straps. Use designation shown.

"EXAMPLE"

3.02 FIELD QUALITY CONTROL

- A. Furnish equipment required to perform tests. Prior to insulation and high potential tests, disconnect instruments and equipment which might be damaged during such tests.
 Conduct tests in presence of the Engineer. Schedule all tests through the Engineer and provide a minimum 48 hours' notice.
- B. Submit test procedure for approval and perform approved tests. Do not perform tests without approved test procedure. Schedule all tests through the Engineer. Tests include but not limited to the following:
 - 1. 600-volt non-metallic sheathed multiple-conductor cable:
 - a. Test continuity of cable conductors using ohmmeter.
 - b. Proof-test insulation resistance to ground and between insulated conductors for minimum of one minute using 1000-volt megger.
 Insulation resistance: one megohm minimum, corrected to 15.6 C.
 Testing procedures shall be as follows:
 - Disconnect all wires of the cable under test at both ends and tape the far end of the wire under test with insulating tape of 600-volt class. Connect the bare end of the wire under test to the positive terminal of 1000-volt megger.
 - 2) Connect the negative terminal of 1000-volt megger to the nearest available ground terminal.
 - Measure the insulation resistance of the wire under test by cranking the megger.
 - c. When cable shows insulation resistance of less than one megohm, perform high potential test at 80 percent of factory dc test voltage or as recommended by cable manufacturer. A gradual decrease of leakage current with time indicates an *acceptable cable installation*.



- 2. 600-volt aluminum sheathed multiple-conductor cable:
 - a. Test continuity of each conductor using ohmmeter.
 - b. Disconnect the cable under test at both ends. Proof-test insulation resistance between each conductor and the metal sheath. While conducting the test, all conductors of the cable and the metallic sheath other than that under test shall be grounded. Insulation resistance shall be measured with a 1000-volt megger for minimum of one minute between the wire under test and ground. Insulation resistance: one megohm minimum, corrected to 15.6 degree C
 - c. When cable shows insulation resistance of less than one megohm, perform high potential test at 80 percent of factory dc test voltage or as recommended by cable manufacturer. A gradual decrease of leakage current with time indicates an acceptable cable installation.
- 3. 600-volt single-conductor cable:
 - a. Test continuity of conductors using ohmmeter.
 - b. Disconnect cable under test at both ends. Proof-test insulation resistance between each cable and the conduit in which the cable runs. While conducting the test, all other cables installed in the same conduit with the cable under test shall be connected to ground at one end. Insulation resistance shall be measured with a 1000-volt megger for minimum of one minute between the cable under test and the ground. Insulation resistance:

One megohm minimum corrected to 15.6 degree C.

c. When cable shows insulation resistance of less than one megohm, perform high potential test at 80 percent of factory dc test voltage or as recommended by cable manufacturer. A gradual decrease of leakage current with time indicates an acceptable cable installation.



- 4. 2000-volt single-conductor cable:
 - a. Test continuity of conductors using ohmmeter.
 - b. Proof-test insulation resistance to ground of the cable under test for a minimum of one minute using a 2500-volt three-terminal megger.
 Insulation resistance: 500 megohms, minimum, corrected to 15.6 degree
 C. Testing shall be done prior to termination of the cables at the two ends.
 Terminal lugs shall be installed prior to cable testing. Testing procedure shall be as follows:
 - Proof-test the system insulation resistance to ground of the cable under test using step-voltage testing method.
 - Insulation resistance: 500 megohms, corrected to 15.6 degree C. Testing shall be done after all cables have been installed and lugged.
 - 3) Isolate all cables at trackside and in the switchgear.
 - Secure each cable under test and connect the positive test lead of the megger to one end of the cable under test. Connect the megger ground lead to the station ground busbar.
 - 5) Apply a 1000-volt dc test voltage to the cable for one minute and record the end test reading on the data sheet.
 - 6) If the megger reading is greater than or equal to 500 megohms, proceed with testing the next cable in the test plan. If the test value is lower than 500 megohms, proceed with the step-voltage test as described below.
 - 7) Step-voltage test:
 - a) Examine and clean cable termination for presence of moisture or contamination.
 - b) Make a second megger test at 1000 volts dc for one minute and record end test reading on data sheet. If reading is less than 500 megohms, proceed with step (c) below, otherwise record new test reading on data sheet with comments depicting corrective action and proceed with testing next cable in the test plan.

- c) Increase the megger test voltage in increments of 500 volts starting at 1500 volts dc up to 2500 volts dc and perform one minute insulation resistance measurement tests.
 Record end test readings on data sheet for each incremental test.
- d) Compare insulation test readings at all levels of test voltage. A decrease of insulation resistance from the 1000 volts dc test voltage to the 2500 volts dc test voltage indicates the cable insulation has incipient weakness and the cable shall be replaced at no cost to the Authority.
- 8) Repeat the above procedures for all the positive and negative traction power cables.
- 5. 2000-volt aluminum-sheathed multiple-conductor cable:
 - a. Test continuity of each conductor using ohmmeter.
 - b. Disconnect the cable under test at both ends. Proof test insulation resistance between each conductor and the metal sheath. While conducting the test, all conductors of the cable and the metallic sheath other than that under test shall be grounded. Insulation resistance shall be measured with a 2500-volt megger for minimum of one minute. Insulation resistance:

500 megohms minimum corrected to 15.6 degree C.

c. When cable shows insulation resistance less than 500 megohms, perform high potential test at 80 percent of factory test voltage or as recommended by cable manufacturer. A gradual decrease of leakage current with time indicates an acceptable cable installation.



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- 6. 15-kV & 35-KV single-conductor cable:
 - a. Test continuity of conductors using ohmmeter.
 - b. Proof-test insulation resistance between conductor and the metallic shield. While conducting the test, the metal shield shall be tied to ground. Insulation resistance shall be measured with a 2500-volt megger for minimum of one minute.

Insulation resistance: 500 megohm minimum corrected to 15.6 degree C.

- c. When cable shows insulation resistance less than 500 megohms, perform high potential test at 80 percent of factory test voltage or as recommended by cable manufacturer. A gradual decrease of leakage current with time indicates an acceptable cable installation.
- d. Submit certified test reports within 10 days after completion of test.

END OF SECTION

SECTION 16129

2000 VOLT SHIELDED & NON-SHIELDED CABLE FOR TRACTION POWER

(CABLE PROCUREMENT ONLY)

PART 1 – GENERAL

1.01 SCOPE

This contract is for the purchase of 1000 Kcmil and 1500 Kcmil traction power cable.

1.02 SUMMARY

This section specifies furnishing shielded and non-shielded, low-smoke, halogenfree, low toxicity, and single conductor 2000V cable, with standard and "extra-flexible" stranding.

1.03 REFERENCES

Pertinent provisions of the latest edition of the following listed Codes, Regulations, Standards and Specifications shall apply to the work of this Section, except as modified herein. In instances of conflict between the codes, standard and specifications, local codes and referenced standards shall take precedence.

- 1. Latest codes and regulations of the jurisdictional authorities.
- 2. NEC, NESC.C2.
- 3. ICEA: S-95-658, S-96-659, S-93-639, T-26-465, T-27-581, T-28-562, T-33-655.
- 4. IEEE: 1202/FT4.
- 5. NEMA: WC53, WC54, WC70, WC71, WC74.
- 6. ASTM: B3, B8, B173, D412, D471, D572, D573, E662.
- 7. UL: 1072, 1581, 1685
- 8. MIL: C-24643
- 9. NFPA 130

1.04 SUBMITTALS

Submit the following for approval in accordance with the Special Conditions and

with the additional requirements as specified herein:

- A. Shop Drawings: Submit shop drawings for each type of cable.
- B. Samples: Specified flame retardancy and smoke-density test samples will become property of the Authority.
- C. Certification
 - 1. Certified flame retardancy test reports and data for tests performed not more than 36 months prior to submittal, for cable identical to those being furnished.
 - 2. Submit smoke-density test reports and data from tests performed not more than 36 months prior to the submittal for cable that are identical to those being furnished.
 - 3. Certified test reports demonstrating that cable complies with specified requirements and those of referenced ICEA and NEMA Standards.
 - Certificates from manufacturer and the Underwriters Laboratories Inc. (UL Listing) verifying that products conform to specified requirements. Include certificates with submittal of shop drawings and with each cable shipment.

1.05 QUALITY ASSURANCE

- A. Qualifications: Select a manufacturer who is regularly engaged in production of similar wire and cable, particularly for Railway or Transit industry application in USA. The manufacturer must have, in place, a Quality Control system, in accordance with ISO 9001 or 9002 and shall be ISO Certified at the time of offering the product.
- B. For Codes, Regulations, Reference Standards and Specifications, refer to Article 1.02.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Mark each single-conductor cable to show UL Listing, size, voltage, manufacturer, etc. in accordance with NEC, ICEA/NEMA and UL requirements.
- B. Ship each unit securely packaged and labeled for safe handling and shipment.
- C. Store products in a dry and secure facility.

PART 2 – PRODUCTS

2.01 MATERIALS

- A. General Requirements for single-conductor shielded and Non-shielded cable:
 - 1. Type and rating: Type II, low smoke, halogen free, low toxicity 2000 Volt jacketed cable.
 - 2. Conductors:
 - 2.a In accordance with ASTM and ICEA standards
 - 2.b 1000kcmil, 127 strand, shielded and non-shielded, Class D, tinned copper
 - 2.c 1000kcmil, 427 strand, shielded and non-shielded, Class G, tinned copper
 - 2.d 1500kcmil, 169 strand, shielded and non-shielded, Class D, tinned copper.
 - 2.e 1500kcmil, 427 strand, non-shielded, Class G, tinned copper.
 - 2.f 1500kcmil, 703 strand, non-shielded, Class H, tinned copper.
 - 2.g Other constructions, as specified or shown on the contract drawings.
 - 2.h Cable suitable for dry and wet locations and hostile environmental conditions associated with underground heavy rail transit systems.
 - 3. Standards: Except as modified, cable shall comply with the Article 1.02.
 - 4. Conductor insulation: Low smoke, halogen free, low toxicity Ethylene-Propylene Rubber (EPR), ICEA Type II, and have the following properties:
 - 4.a The low smoke, halogen free, low toxicity Ethylene Propylene Rubber (EPR) insulation shall be capable of withstanding operating copper conductor temperature of 90°C continuous, 130°C emergency overload for standard prescribed periods and 250°C for short circuits. The insulation shall be highly moisture resistant, shall be free-stripping and leave the surface of the conductor clean. An opaque Mylar separator may be used between the conductor and the insulation to ease stripping. Any additional tapes (e.g., flame-retardant fiberglass over the tinned copper tape, etc.) deemed necessary by the manufacturer shall be clearly noted.

- 4.b Insulation Thickness:
 - *4.b.(1)* Nominal thickness of the EPR insulation wall over the conductor: 90 mils (0.090 inches) for 1000 Kcmil and

115 mils (0.115 inches) for 1500 Kcmil cables

4.b.(2) Nominal thickness of the supplemental EPR insulation wall over the shield:80 mils (0.080 inches) for 1000 Kcmil and

1500 Kcmil shielded cables

- *4.b.(3)* The minimum point thickness for both layers of insulation shall not be less than 90% of the nominal thickness.
- *4.c* The EPR insulation will have the following physical and electrical characteristics when tested in strict accordance with Article 1.02 standards:
 - *4.c.(1)* Tensile strength (minimum): 1200 PSI.
 - *4.c.(2)* Elongation (minimum): 150 percent.
 - 4.c.(3) Tensile stress at 100 percent elongation (minimum): 500 PSI.
 - 4.c.(4) When air oven tested for 168 hours at $121^{\circ}C \pm 1^{\circ}C$
 - a) Tensile strength: 75 percent
 - b) Elongation: 75 percent.
 - 4.c.(5) When Hot Creep tested after conditioning at $150^{\circ}C \pm 2^{\circ}C$
 - a) Elongation (maximum): 50 percent
 - b) Set (maximum): 5 percent.
 - 4.c.(6) Electrical properties after water immersion at $75^{\circ}C \pm 1^{\circ}C$
 - a) Permittivity after 24 hours (maximum): 6.0
 - b) One to 14 days immersion (maximum increase in capacitance): 5 percent
 - c) Seven to 14 days immersion (maximum increase in capacitance): 3 percent
 - d) Stability factor after 4 days (maximum): 1.0,

- OR -Stability factor difference (maximum) 1 - 14 days: 0.5

- *4.c.(7)* Insulation resistance constant at 15.6°C (minimum): 10,000 meg/1000 feet.
- 5. Shield:
 - a) The shield shall consist of a continuous layer of tin-coated copper tape at least 5 mils (0.005 inches) thick. The tape shall be a minimum width of 0.75 inches and be applied with an overlap of at least 0.25 inches or 25 % of its width whichever is greater.
 - b) The tape shall be free from burrs and shall be applied in such a manner that electrical and mechanical continuity will not be distorted or disrupted during normal installation bending. Joints in tapes shall be made electrically continuous by welding, soldering or brazing. Butted tapes joints shall not be permitted. Apply supplemental EPR insulation over copper shield before the cable is extruded with the non- metallic Jacket.
- 6. Nonmetallic jacket for single-conductor cable:

Cross-linked polyolefin (XLPO) Thermoset Type II complying with the following physical requirements. Nominal wall thickness shall be 0.095 inches, minimum thickness at any point 0.080 inches. Properties tested in accordance with ASTM, ICEA, UL, IEEE and MIL specifications, refer to Article 1.02. Jacket material shall be low-smoke, halogen-free, low toxicity, fire retardant. Bond jacket to insulation to prevent moisture pockets between the jacket and insulation. The minimum peel strength of the jacket from insulation shall be four (4) pounds per inch width.

- 6.(1) Tensile strength, minimum pounds per square inch: 1,600.
- 6.(2) Elongation at rupture, minimum percent: 150.
- 6.(3) Aging requirement: After 168 hours in air oven test at $121^{\circ}C \pm 1^{\circ}C$:
 - a) Tensile strength, minimum percentage of unaged value: 85.
 - b) Elongation at rupture, minimum percentage of unaged value: 75.
- 6.(4) When Hot Creep tested after conditioning at $150^{\circ}C \pm 2^{\circ}C$:
 - a) Elongation (maximum): 100 percent
 - b) Set (maximum): 10 percent.
- 6.(5) Cold Bend Temperature: minus 25°C.
- 6.(6) Gravimetric Method Water Absorption (maximum): 50 mg/in².

- 6.(7) When oil immersion tested for 18 hours at $121^{\circ}C \pm 1^{\circ}C$:
 - a) Tensile strength: 50 percent
 - b) Elongation: 50 percent.
- 6.(8) Smoke density, 100 mil slab:
 - a) Flaming mode:

Uncorrected maximum specific optical density during first four minutes of test Ds4: 50

Uncorrected maximum specific optical density for entire 20minute test,

Dm: 250

b) Non-flaming mode:

Uncorrected maximum specific optical density during first four minutes of test, Ds4: 50

Uncorrected maximum specific optical density for entire 20minute test, Dm: 350

- 7. The completed cable (including insulation and jacket) will be tested in accordance with ASTM, UL and MIL standards by an independent, nationally recognized testing agency. The combustion requirements and characteristics are:
 - 7.(a) Acid gas equivalent (maximum): 2 percent
 - 7.(b) Halogen content: 0.2 percent

7.(c) Smoke density, 100 mil slab:

Prepare 100 mil (0.100 inches), plus-or-minus 0.005 inches, thick slab specimens for each material identical to those of finished cables and meeting minimum physical requirements specified. Prior to testing, submit six-inch square portion of each specimen. Tag sample with manufacture's jacket or insulation identification code or number.

7.(c) 1 Flaming mode:

Uncorrected maximum specific optical density during first four minutes of test Ds4: 50 Uncorrected maximum specific optical density for entire 20minute test, Dm: 250

7.(c) 2 Non-flaming mode:

Uncorrected maximum specific optical density during first four minutes of test,

Ds4: 50

- 7.(d) Uncorrected maximum specific optical density for entire 20minute test, Dm: 350 Flame retardancy: All 2000-volt shielded power cables shall be flame-retardant and shall pass the vertical tray flame test as described in the IEEE – 1202/FT4, ICEA S-95-658, T-30-520 and UL-1581, 1685. Cable size for testing shall be a minimum 250 kcmil.
- 8. Applied Voltage testing:
 - 8.(a) All 2000-volt shielded cable to be given applied AC voltage dielectric strength test, i.e., six-hour water-immersion test.
 - *8.(b)* Test procedures:

Conductor shall be immersed in water for a minimum of six hours before test. Shielded cables shall be tested from conductor to shield, and tested from shield to water at 11.0 kV AC. Test in accordance with methods outlined in appropriate sections of ICEA, NEMA and UL standards.

END OF SECTION

SECTION 26 05 19

WIRE, CABLE AND BUSWAYS FOR PASSENGER RAIL SYSTEMS

PART 1 – GENERAL

1.01 DESCRIPTION

- A. This section specifies work pertaining to wire, cable and busways. Requirements for single-conductor cable and for multiple-conductor cable as stated except as otherwise specified.
- B. Related Work Specified Elsewhere:
 - 1. Wire connection accessories: Section 26 05 29
 - 2. Raceways, boxes and cabinets: Section 26 05 33

C. Definitions:

1. Cable: Cable having low smoke zero halogen "LSZH" characteristics.

1.02 QUALITY ASSURANCE

- A. Qualifications: Select a manufacturer experienced in production of similar wire and cable, particularly to Railway or Transit industry.
- B. Manufacturer shall maintain an ISO 9001: 2008 (or more recent) edition.
- D. Codes, Regulations, Reference Standards and Specifications:
 - 1. NFPA 70 / NEC 2014 Edition
 - 2. NFPA 262
 - 3. ASTM E 119
 - 4. NFPA 130 2014
 - 5. ICEA S-95-658, S-93-639, S-97-682, T-33-655.
 - 6. IEEE 1202
 - 7. NEMA BU1
 - 8. UL 44, 62, 857, 1072, 1581 VW-1
- E. Source Quality Control:
 - 1. Wire, cable and busways: Listed or labeled per UL or ITS directory.

1.03 SUBMITTALS

- A. Submit the following for approval in accordance with the General Requirements and with the additional requirements as specified for each:
 - 1. Product Data.
 - 2. Certification Documents, to be provided upon request:
 - a. Flame test reports / Smoke-density test reports
 - b. Certified test reports per the applicable ICEA requirements
 - c. Certificate of compliance from manufacturers verifying that products wire and cable conform to specified requirements.

1.04 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Mark each single-conductor cable, each multiple-conductor cable and each busway to show UL Type, Listing/certifications, size, voltage, manufacturer and number of conductors or phases in accordance with NEC requirements.
- B. Ship each unit securely packaged and labeled for safe handling and shipment.
- C. Store products in a dry and secure facility.

PART 2 – PRODUCTS

2.01 PRODUCTS AND MATERIALS

- A. General Requirements for Single-Conductor and Multiple-Conductor Cable:
 - 1. Type and size: As shown.
 - 2. Rated voltage: As shown.
 - 3. Conductors:
 - a. Bare or tinned annealed copper in accordance with ASTM B3, B8, B33, B496
 - b. Size 10 AWG and smaller: Solid or Stranded (Class B or C)
 - c. Size 8 AWG and larger: Stranded (Class B or C)
 - 4. Standards: Except as modified, wires and cable complying with the following standards:
 - a. NFPA 130 (2014) requirements as noted in section 1.5.
 - b. Applicable ICEA Standards based on cable type: S-95-658, S-93-639, S-97-682.

- 5. Non-metallic jacket for single-conductor cable and an overall covering of a multi-conductor cable.
 - Low smoke zero halogen polyolefin complying with the physical requirements of the applicable ICEA standards.
 PVC and PVC-based compounds are strictly prohibited.
 - b. Jacket materials other than cross-linked polyolefin complying with the relevant ICEA standards may be used only with express written approval from engineering.
- 6. Flame Performance: Single-conductor and multiple-conductor cable tested by an independent agency demonstrating flame retardant characteristics in accordance with the following:
 - a. 600V Single-conductor cables and individual conductors of 600V multiple-conductor cable passing vertical wire flame test in accordance with UL1581 VW-1 or UL1685 Method 2. Cable size for testing to UL 1581: 14AWG.
 - b. Single-conductor cable, size 1/0 AWG and larger, passing vertical tray flame test, using ribbon gas burner in accordance with IEEE 1202. Cable size for testing: 1/0 AWG.
 - c. Multiple conductor cable passing vertical tray flame test using ribbon gas burner in accordance with IEEE 383 or IEEE 1202. Cable size for testing: 9/C 12 AWG.
- 7. Low Smoke Zero Halogen Characteristics:
 - a. All low smoke zero halogen materials shall meet the requirements of ICEA T-33-655
 - b. Cables, which are UL listed "LSHF", in accordance with UL 2885 are preferred.
- 8. Wire and cable constructions intended for used in power circuits to emergency lighting and other critical applications shall be listed as being resistant to the spread of fire and have a minimum 1-hour fire-resistive rating in accordance with ANSI/UL 2196 and shall also have reduced smoke emissions by complying with NFPA 130 and NFPA 262. These cables shall be installed in accordance with the specified methods in which they were listed with UL including conduit size/type and other installation design characteristics.
- 9. Applied voltage testing:
 - a. Single-conductor cable and individual conductors of multipleconductor cable shall be tested using the applied AC voltage dielectric-strength test.

- B. Single-Conductor Cable:
 - 1. Insulated with ethylene-propylene-rubber with a low smoke zero halogen polyolefin jacket. UL listed as Type RHH/RHW-2/USE-2.
 - 2. Insulated with a composite of low smoke zero halogen polyolefin insulation and low smoke zero halogen polyolefin jacket. UL listed as Type RHH/RHW-2/USE-2
- C. Multiple-Conductor Cable:
 - 1. Individual conductors:
 - a. Number of conductors: As required.
 - b. Construction: Complying with one of the following:
 - 1) Insulated with ethylene-propylene-rubber or a low smoke zero halogen polyolefin, with or without non-metallic jacket.
 - 2) Insulated with composite compound of ethylenepropylene-rubber and polyethylene, without outer jacket.
 - 3) Insulated with filled cross-linked polyethylene without jacket.
 - c. Phase and neutral conductors: Individually insulated.
 - d. Bare or tinned uninsulated ground conductors: Sized in accordance with the NEC, unless otherwise shown.
 - e. UL Listed as Type RHW-2 or XHHW-2.
 - 2. Conductors assembled with non-wicking, flame-retardant filler as required to form a cable of circular cross section.
 - 3. Metallic sheath:
 - a. When specified, provide one of the following:
 - 1) Size 1 AWG and larger:
 - a. Interlocked aluminum-tape armor.
 - b. Continuous corrugated and welded aluminum armor.
 - 2) Size 2 AWG and smaller: As specified for 1 AWG and larger or continuous smooth aluminum sheath.
 - b. Metallic covering not required for multiple-conductor TC cable with overall non-metallic jacket when installed in cable tray.

- 4. Multiple-conductor cable provided with overall non-metallic jacket as specified.
- 5. Cable UL-listed as follows:
 - a. Non-metallic-sheathed cable: Type TC-ER-LS, suitable for wet and dry locations.
 - b. Metallic-sheathed cable: Type MC, suitable for wet and dry locations.
- 6. Color coding:
 - a. Power cables: ICEA Method 4
 - b. Control cables: ICEA Method E-2
- D. Fixture Wire: UL 62, with the following additional requirements:
 - 1. Type: SF-2 silicone-rubber insulated or as necessary to suit temperature rating of lighting fixture, minimum 90 degrees Celsius.
 - 2. Conductor: Stranded copper conductor 16AWG or larger as required.
- E. Bare Conductors: ASTM B3 or B8, annealed copper conductor; 8AWG and larger, Class B stranded, unless otherwise shown or specified.
- F. Medium Voltage Single-Conductor Cable:
 - 1. Rated voltage: 15-kV.
 - 2. Conductor: As specified and with an extruded semi-conducting strand screen.
 - 3. Insulation: Ethylene-propylene rubber, 133 percent insulation level, with an extruded semi-conducting insulation screen.
 - 4. Shield: Copper tape, nominal thickness 5 mils, with a nominal 25% overlap.
 - 5. Jacket: Overall flame retardant low smoke zero halogen polyolefin in accordance with UL standard 1072 and ICEA T-33-655.
- G. Medium Voltage Cable Terminations:
 - 1. Except as otherwise specified, heat shrinkable tubing kit type, with grounding accessory kits, in accordance with the characteristics of the medium voltage cable shall be furnished.
 - Shrinkable tubing kits to be pre-stretched shrinkable tubing and shall contain all necessary components to reinstate cable insulation, metallic shielding/grounding system and overall jacket.

- H. Busway (Bus-duct) and Fittings:
 - 1. NFPA 130: Conduits, raceways, ducts, boxes, cabinets, and equipment enclosures shall be constructed of noncombustible materials in accordance with the requirements of ASTM E 136.
 - 2. UL 857, NEMA BU1.
 - 3. Totally enclosed, three-phase, four-wire feeder busway system, as required, with necessary fittings, hanging devices, accessories and provision for flange bolting over circuit breaker.
 - 4. Continuous current rating:
 - a. Secondary tie duct for use in combined substation: Sized in accordance with ANSI C37.20.1, C37.20.2, C37.20.3, and NEC.
 - 5. Voltage rating: 480/277 Volts.
 - 6. Busway system braced to withstand minimum short-circuit current of 65,000 amperes symmetrical but not less than the highest short-circuit current available upstream and downstream of the busway system, unless otherwise shown and based on the short circuit study.
 - 7. Maximum allowable temperature rise in busway at continuous full load above maximum ambient temperature of 40 degrees Celsius: 55 degrees Celsius.
 - 8. Housing: Non-ventilated, fabricated from galvanized sheet steel or aluminum. If aluminum is used, the thickness shall be modified to provide equivalent strength and deflection to that of steel. Removable gasketed cover provided at transformer connection for maintenance and test. Hardware galvanized or cadmium-plated.
 - 9. Joints:
 - a. Single-bolt pressure joint designed for optimum electrical contact and mechanical strength.
 - b. To permit safe testing of its tightness without de-energizing systems.
 - c. To permit removal of duct sections without disturbing adjacent pieces.
 - d. To permit making up joint from one side when busway is installed against wall or ceiling.

- 10. Busbars: Fabricated from 98-percent-conductivity copper and insulated over entire length except at joints and contact surface. Joints and contact surfaces tin-plated or silver-plated. Neutral bar same size as phase bar. Ground bar half size of phase bar.
- 11. Entire busway system polarized.
- 12. Expansion fittings provided where necessary.
- 13. Flexible connections, braided or laminated, provided for connecting bus conductor to transformer terminals.
- 14. Finish: Light-gray enamel, ANSI Z55.1, Color 61; minimum dry-film thickness, two mils.
- I. Variable Frequency Controller (VFC) Cable:
 - 1. Comply with UL 1277, UL 1685, ICEA S-95-658, and NFPA 70 for 2000V Type TC-ER cable.
 - 2. Individual phases shall be UL listed 2000V RHH/RHW-2 with crosslinked polyethylene insulation.
 - 3. Phases shall be cables with 3 symmetrically placed ground wires and an overall 5 mil copper tape shield with a 50% overlap.
 - 4. Overall jacket shall be a low smoke zero halogen polyolefin. Jacket material free of PVC and PVC based compounds. Cable shall be UL listed as 2000V Type TC-ER.
 - 5. Comply with UL requirements for cables in direct burial Class I and II, Division 2 hazardous location applications.

PART 3 - EXECUTION N.I.C

3.01 \ INSTALLATION



- Install type cable as specified.
- B. Install single-conductor cable in conduit, underfloor duct or wire-way. Install UL Type TC multiple-conductor cable in cable trays only. Install UL Type MC multiple-conductor cable and ground cable on channel inserts, cable trays, racks, trench or trough using straps and fasteners as specified in Section 26 05 33. Install UL Type MC multiple-conductor cable in conduit where shown or required. On walls or ceilings, fasten cable and bus duct directly to channel inserts, or use expansion-bolt anchors to attach to concrete and toggle bolts to attach to concrete masonry unit walls. Splice cable only when unavoidable.
- C. Install motor feeders, service connections and extensions in accordance with reference codes. Install motor feeder in 18-inch minimum length liquid-tight flexible conduit at motor conduit box.
- D. Use nylon straps to bundle and secure wire and cable located in panelboards, cabinets, switchboards, motor control centers and switchgear.
- E. Minimum bending radius 12 times outer diameter of cable. Where shown, use shorter bending radius as permitted by NEC, ICEA S-95-658, S-96-659, S-93-639, S-94-649, S-97-682, and S-105-692, and cable manufacturer.
- F. To facilitate pulling cable, use listed per UL or ITS directory lubricant recommended by cable manufacturer.
- G. In damp and dusty indoor locations, manholes and outdoor locations, seal cable at conduit termination using duct-sealing compound.
- H. Where shown or necessary, install cable-seal fitting specified in Section 26 05 33 to prevent entry of water into electrical facilities. Where approved, use seal compound specified in Specification Section 26 05 33.
- I. Use polyethylene or other suitable nonmetallic rope for polling cable.
 - Attach to cable by means of either woven basket grips of pulling eyes attached directly to the conductors.
- J. Terminate medium voltage cable, using the specified termination kits, in accordance with the manufacturer's recommendations.
- K. The splicing of power and control cables is not permitted in ductbanks, cable troughs or cable trenches. However, if permitted by WMATA, make watertight splices as approved.

3.02 IDENTIFICATION

Identify cable terminations, feeders and power circuits using non-metallic fiberboard tags or plastic labels. Attach tags to cable with slip-free plastic lacing or nylon bundling straps. Use designation shown.

3.03 FIELD QUALITY CONTROL

- A. Engage a qualified testing and inspection agency to ensure that the work is in conformance with applicable specifications and perform tests required by these specifications:
- B. Submit test procedures in accordance with the Contract documents for approval and perform approved tests. Do not perform tests without approved test procedure. Furnish the equipment, personnel to perform the following tests:
 - 1. 600V AC power Single-conductor cable and multiple-conductor cable:
 - a. Test continuity of cable conductors using ohmmeter.
 - b. Proof-test insulation resistance to ground and between insulated conductors for minimum of one minute using 1,000-Volt megger. Insulation resistance: 200,000 ohms minimum.
 - c. When cable shows unsteady insulation resistance of less than 200,000 ohms, perform high-potential test at 80 percent of factory AC test voltage or as recommended by cable manufacturer.
 - 2. 15kV Medium Voltage Cable: Single-conductor cable:
 - a. Test continuity of conductors using ohmmeter.
 - b. Test circuit integrity using a dc hi-potential test in accordance with IEEE 400.1.
 - c. Submit certified test reports within 30 days after completion of test.
 - 3. Busway:
 - a. Clean contact surfaces before making connections. For bolted connections, apply torque recommended by manufacturer.
 - b. Test resistance of busway connections. Resistance not to exceed value recommended by manufacturer.
 - c. Test insulation resistance to ground and between insulated busbars for minimum of one minute using 1,000-Volt megger. Insulation resistance: One-mega-ohm minimum. When busway shows insulation resistance of less than onemega-ohm minimum, perform high-potential test.

- L. Prior to insulation and high-potential tests, disconnect instruments and equipment which might be damaged during such tests. Conduct tests in accordance with the Contract Documents.
- M. Submit certified test reports.

END OF SECTION

SECTION 32 42 49

ATC SIGNAL WIRE AND CABLE

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. This section includes the requirements for the design, manufacturing, supply, installation, documentation, performance and testing of electrical wire and cable used in WMATA wayside ATC Systems.
- B. This section includes, but is not limited to, the requirements of the following:
 - 1. Internal Signal Wire and Cable used in Train Control Rooms (TCRs), Wayside cases, and inside train control equipment modules and housings.
 - 2. External Signal Wire and Cable exterior to the TCRs and signal equipment housings, which include:
 - a. Signal Cables;
 - b. Control and Indication Cables; and
 - c. Negative Propulsion Return Cables.

1.2 RELATED SECTIONS

A. Related work specified elsewhere shall include, but not be limited to, the following Sections:

	Section	Automatic Train Control (ATC)
1.	34 42 15	Basic ATC Equipment Requirements
2.	34 42 21	ATC Power Distribution Systems
3.	34 42 22	ATC Lightning/Surge Protection and Grounding Systems
4.	34 42 25	ATC Data Transmission System
5.	34 42 48	ATC Plug Connections
6.	34 42 56	ATC - Interlocking Control Panels - Hardwired
7.	34 42 61	ATC - Audio Frequency Track and Loop Circuit Layouts
	34 42 62	ATC - Impedance Bond Layouts
-	34 42 63	ATC - Power Frequency Track Circuit Layouts
	34 42 64	ATC - Track Switch Operating Layouts
	34 42 65	ATC - Track Bonding Layouts
	34 42 67	ATC - Marker Coil Layouts
	34 42 68	ATC - LED Signal Layouts
	34 42 69	ATC – Snowmelter Elements
	34 42 70	ATC – Snowmelter Control Cases
	34 42 71	ATC - Racks and Cable Trays
	34 42 73	ATC - Conduit
	34 42 77	ATC - Tagging and Marking
19.	34 42 78	ATC - Miscellaneous Components and
		Materials
20.	34 42 96	ATC - Technical Appendix

1.3 SUBMITTALS

- A. The Contractor shall submit the following in accordance with the Contract Documents to the Project Manager for approval:
 - 1. Results of Certified Test reports which include all tests conducted on finished Internal Wire and Cable as specified herein and Parts 10.3.14 and 10.3.24 of the AREMA C&S Manual.
 - 2. Test reports of cable tests conducted in the field in accordance with approved testing procedures for all External Wire and Cable with a Pass/Fail criteria and status.
 - 3. For internal wire and cable, technical data in accordance with the requirements herein and Parts 10.3.14 and 10.3.24 of the AREMA C&S Manual.
 - 4. Detailed product data, samples, shop drawings, data sheets, and specifications, including, but not limited to the following:
 - a. Qualification samples in accordance with Section 1.04 below.
 - b. Shop drawings showing the method and materials for external wire and cable support in manholes, pull chambers, and on tunnel walls, as applicable.
 - c. A program for maintaining and assuring the mechanical and electrical integrity of all external cables during pulls into pipe or conduit.
 - d. Manufacturer's recommended pulling tension for each type of cable to be used, for both cable grip and core hitch methods. The formula(s) for determining the multi-cable pull calculations shall also be included. This information shall be submitted prior to any cable pull.
 - e. Pre-printed data sheets for all external cables which shall include samples of the following:
 - 1) Certified Test Report;
 - 2) Inspection Sheet for Wire and Cable;
 - 3) Physical Test Report; and
 - 4) Quality Assurance Traceability Schematic
 - f. A certified list of each external cable manufacturer's railway/rapid transit signal installations for the past ten years and proof of the same.
 - g. Each external cable manufacturer's (and, where applicable, each insulation and/or jacket material manufacturer's) Quality Assurance Program and proof of tenure.
 - h. Test procedures for Wire and Cable and all insulating material

- 5. Pull Sheets shall be submitted to the Project Manager, at least one week prior to each cable pull. Pull Sheets shall include, but not limited to, the following:
 - a. Date of proposed pull;
 - b. Cable nomenclature(s);
 - c. Cable type(s);
 - d. Cable routing;
 - e. Recommended pulling method;
 - f. Maximum recommended pulling tension as determined by the type of cable and pulling method, or, for multi-cable pulls, by calculation using the applicable formula(s).
 - g. Room for recording the date of the actual pull, the maximum pull tension experienced during the pull, and any other pertinent information concerning the pull
- 6. Approved Pull Sheets shall be returned to the Contractor prior to the proposed pull. The Contractor shall record the date of the actual pull, the actual method used, the maximum tension experienced during the pull, and other pertinent information, and resubmit the Pull Sheet(s) to the Project Manager.

1.4 QUALIFICATION OF SIGNAL WIRE AND CABLE

A. Each manufacturer shall provide full technical data which demonstrates their (and, where applicable, the cable insulation manufacturer's) compliance with the requirements of this

Section and Section 7 of ICEA S-95-658 for each specified wire and cable type to be provided.

- B. Each manufacturer (and, where applicable, the insulation and/or jacket insulation material manufacturer) shall conduct the required qualification or prototype testing which demonstrates compliance with the requirements of these Specifications and Section 7 of ICEA S-95-658 for each specified wire and cable type to be provided.
- C. All qualification test data shall be submitted in accordance with Section 1.07 below.
- D. Internal Wire & Cable to be used for qualification shall be a minimum of 20 AWG 0-600V and 12 AWG rated 0-2000V
- E. The cable manufacturer shall submit samples of each type of wire and cable to WMATA for evaluation.

1.5 MANUFACTURER QUALIFICATION FOR ALL WIRE AND CABLE

- A. All cable manufacturers supplying wire or cable for this Contract must be approved by the WMATA Project Manager. The Contractor shall provide all of the data necessary for the demonstrations and tests required by the designated Project Manager. Approval shall be based on the following criteria:
 - 1. Past Performance and Experience
 - a. The cable manufacturer must have at least ten years of successful experience in supplying cable to the railway/rapid transit industry for use as vital circuit signal control cable.
 - 2. Quality Assurance Program
 - a. The manufacturer of cables and, where applicable, the cable insulation and/or jacket insulation material manufacturer(s), shall have an established Quality Assurance Program which meets ISO-9001 requirements and have been continuously in effect for at least seven years. Efficient methods of production, test, and product evaluation shall be used, but prime concern shall be focused on the necessary formal quality requirements to ensure that cable failure cannot be attributed to actions or lack of actions by the manufacturer.
 - b. If the cable manufacturer has proprietary cable insulation material formulations which are compounded and prepared at another, non-owned facility, this facility shall be subject to the same Quality Assurance Program procedures, systems, and requirements that have been approved for the cable manufacturer's use in its own facilities, and shall be subject to audit by WMATA.
- B. Approval of a manufacturer or vendor may be withdrawn if any of the following conditions exist:
 - 1. Performance in meeting test requirements or field experience indicates that the specifications herein listed or other contract requirements have not been met.
 - 2. The manufacturer, without prior notification to the purchaser, changes a design or material.

1.6 QUALITY ASSURANCE FOR SIGNAL WIRE AND CABLE

A. <u>GENERAL</u>

- 1. The manufacturer shall be responsible for the performance of all testing and production inspection requirements, to assure that their product continues to meet the parameters specified herein.
- 2. The manufacturer is required to certify compliance with this specification for each production run. A certificate of compliance must be submitted with each shipment. Any changes made that affect the material, physical properties or electrical characteristics will require requalification.
- 3. WMATA reserves the right to place quality assurance representatives in the wire and cable manufacturer's facility to ensure conformance to the specification requirements in any phase of manufacturing, inspection and testing.
- 4. All wire and cable which does not comply with this specification is subject to rejection. It shall be the manufacturer's responsibility to collect all rejected wire or cable for disposal, even if it has been shipped to the site.
- 5. Test Reports shall be submitted in accordance with Section 1.07.
- 6. The Contractor shall monitor the manufacture of the insulation and jacket material(s) and the wire and cable to ensure that the approved Quality Assurance Program is being followed and that the wire and cable are being manufactured in accordance with these Specifications and the approved submittals.
- 7. Each finished batch of wire and cable shall be traceable to the test data on file for each step in its manufacturing process.
- 8. Production tests shall be conducted as per Section 6 of ICEA S-95-658. However, the tests which must be conducted during manufacturing on 100% of the wire and cable shall include, but not be limited to, the following:
 - a. Individual insulated conductors, prior to cabling, shall be either AC or DC water tank tested.
 - b. Voltage tests required for each reel of finished wire or cable after application to the shipping reel shall be either the AC Voltage test or the DC Voltage test.
 - c. DC Resistance
 - d. Insulation resistance
 - e. Shield continuity
- 9. Voltage tests shall be conducted in accordance with Section 2.2 of ICEA T-27- 581.
- B. WMATA reserves the right to witness any or all of the above tests and shall be notified 60 calendar days in advance of each of the above tests.
- C. The Contractor shall prepare and certify a report for each of the above tests, to include all pertinent facts concerning the conditions and results of that test, plus the backup information required.

1.7 TEST AND INSPECTION REPORTS

- A. All Certified Test Reports shall include, but not limited to, the following information:
 - 1. Report number;
 - 2. Date and location of test;
 - 3. Description of test and test conditions;
 - 4. Complete cable or wire description identifying the following:
 - a. Wire/Cable Size;
 - b. Voltage;
 - c. Temperature Ratings;
 - d. Manufacturer;
 - e. Trade name and generic name;
 - 5. Lot, batch, and/or reel identification number;
 - 6. Quantitative test results;
 - 7. Summary of test results;
 - 8. Information on the components of the cable tested to include batch numbers and physical and electrical properties; and
 - 9. Traceability data.
- B. Submit the following signed and completed documents along with each Certified Test Report:
 - 1. An Inspection Sheet for Wire and Cable.
 - 2. A Physical Test Report
- C. Inspection Sheets are required to be signed and completed prior to the shipment of any wire and cable to WMATA. The Inspection Sheets shall include, but not limited to, the following information:
 - 1. Cable manufacturer, address and contact information;
 - 2. Cable drum number, length, and test certificate number;
 - 3. Drum constriction, strapping and markings;
 - 4. Month and year of cable manufacture;
 - 5. Length of cable on the reel;
 - 6. Roll direction;
 - 7. Cable is clearly marked with size and listing information;
 - 8. Conductor resistance test results;
 - 9. Insulation resistance test results; and
 - 10. Signed confirmation from manufacturer that the manufactured cable meets the requirements of this section.

PART 2 - PRODUCTS

2.1 GENERAL

- A. All internal and external wire and cables shall be vermin proof.
- B. All internal and external wires and cables shall be capable of a 40-year average service life.
- C. The boundary between external and internal wire and cable shall be the entrance rack located in each TCR. All wire and cable exiting the TCR shall be classified as external cable.

2.2 NFPA 130

- A. All wire and cable shall meet the requirements of the latest revision of NFPA 130, Standard for Fixed Guideway Transit and Passenger Rail Systems.
- B. In the event of conflicts between NFPA 130 and this specification, the more stringent requirement shall take precedence.

2.3 INTERNAL WIRE AND CABLE

- A. All internal wire and cable shall meet the requirements of the following standard including but not limited to, material, wire construction, insulation thickness, identification, performance, packaging and color coding:
 - 1. AREMA C&S Manual Part 10.3.14, Recommended Design Criteria for Ethylene Tetrafluoroethylene Copolymer (ETFE) Insulated Signal Wire and Cable
 - 2. AREMA C&S Manual Part 10.3.24, Recommended Design Criteria for Ethylene Tetrafluoroethylene Copolymer (ETFE) Insulation and Jacketing for Wire and Cable
- B. Solid conductors shall be soft annealed copper, coated in accordance with Type I wire as specified in Part 10.3.14 and Part 10.3.24 of the AREMA C&S Manual.

2.4 EXTERNAL WIRE AND CABLE

A. GENERAL

- 1. All external cable furnished shall be of rugged construction.
- 2. All external cable shall be suitable for use in the environment encountered in the WMATA Rail and Rapid Transit System and shall be certified for continuous operation at 90 degrees Celsius in wet or dry locations, whether in trays, troughs or conduits above or below ground, exposed runs, or direct buried.
- 3. Except for cables described in section 2.06, all insulation and jacketing compounds offered on this Contract by the cable manufacturer shall be formulated, applied, and, where applicable, vulcanized by the cable manufacturer in its own facilities. If the cable manufacturer does not normally compound and otherwise prepare insulating material in its own plant, it is acceptable for the cable manufacturer to have its proprietary formulations compounded and prepared at another non-owned facility which complies with the manufacturing and end product quality requirements specified herein.
- 4. All conductors, insulation, direct current resistance and jackets shall be in accordance with ICEA S-95-658, ASTM B8 and ASTM B33 and the requirements specified herein.

B. INSULATION REQUIREMENTS

- 1. All External Wire and Cable insulation shall meet the physical property requirements as per ICEA S-95-658 Section 3, in addition to the requirements specified herein.
- 2. The insulation of external signal cables shall be either Grade E-1 or E-2 ethylene propylene rubber as per ICEA S-95-658.
- 3. The insulation of negative propulsion return cables shall be Grade E-2 ethylene propylene rubber as per ICEA S-95-658.
- 4. The insulation or insulation system of external wire and cable shall fit tightly to the conductor and shall be free-stripping. Insulation thickness shall be in accordance ICEA S-95-658.
- 5. Grade E-1 and E-2 insulation as defined in ICEA S-95-658 shall also include the following requirements:
 - a. Material: Rubber-like
 - b. Vulcanized during Construction
 - c. Chlorine content, maximum % by weight: Zero

C. CONDUCTOR REQUIREMENTS

- 1. Conductor resistance shall be in accordance with ICEA S-95-658.
- 2. Signal conductors shall be soft annealed copper as per ASTM B33 and stranded as per ASTM B8, and shall also meet the following requirements:
 - a. Coating shall be of continuous tin alloy (vital signal cable only)
 - b. Stranding:
 - Conductors less than 14AWG shall be in accordance with ASTM B8, Class B
 - 2) Conductors 14AWG to 00 shall be in accordance with ASTM B8, Class C
- 3. Negative Propulsion Return Conductors shall be soft annealed copper as per ASTM B33 and stranded in accordance with ASTM B8 and shall meet one of the following requirements:
 - a. Extra-flexible, 1000 KCMIL Ropelay cable, Class G Stranded (427 strands)
 - b. Standard 1000 KCMIL Ropelay cable, Class D stranded (127 strands)
 - c. 500 KCMIL Ropelay, Class G Stranded (259 strands) or better

D. JACKET REQUIREMENTS

- 1. Material rubber-like, thermosetting, low smoke, non-halogenated, cross-linked polyolefin, vulcanized during construction in accordance with ICEA S-95-658
- 2. Outer jacket:

a.

- a. Vulcanized during construction
- b. Oxygen index minimum as per ASTM D2863.
- 3. Cable Jacket Specification
 - Chlorine content,
 - 1) Maximum % by weight 0.2
 - b. The following physical properties shall be in accordance with ICEA S-95- 658
 - 1) Tensile strength,
 - 2) Tensile stress
 - 3) Physical properties after aging
- 4. Surface resistivity shall be a minimum of 100 megaohms

E. NEGATIVE PROPULSION RETURN CABLES

- 1. Insulation requirements shall be in accordance with the following:
 - a. Jacket:
 - 1) Overall non-metallic jacket thermoset, chlorosulfonated polyethylene or cross-linked polyolefin.
 - 2) Jacket materials other than cross-linked polyolefin shall comply with ICEA S-95-658.
 - 3) Insulation Power Factor: 2% maximum.
 - 4) Jacket shall be bonded to the insulation to prevent moisture pockets resulting in a minimum peel strength of the jacket from insulation of 4 pounds/inch of width
 - b. UL labeling: Type RHW-2.

2.5 ASSEMBLY OF MULTICONDUCTOR SIGNAL CABLE

A. INDIVIDUAL EXTERNAL WIRE CONDUCTORS

1. All single conductor external cables shall fulfil the insulation and jacket requirements of this specification.

B. MULTICONDUCTOR SIGNAL CABLE

- 1. The term "multiconductor signal cable" shall be interpreted as meaning any multiconductor cable applied in circuits, either vital or non-vital, the function of which has a direct effect upon the operation of trains or the ability of the system or subsystems to implement control upon the trains.
- 2. All multiconductor external signal cable shall be assembled from conductors which meet the requirements of Section 2.04C Conductors.
- 3. Multiconductor external signal cables shall have 2, 5, 7, 9, 12, 14, 19, 27, or 37 conductors.
- 4. Multiconductor external signal cables containing more than two conductors shall contain 20-percent spare conductors or two spare conductors, whichever is greater. Local distribution cable shall contain ten percent spare conductors or one spare conductor, whichever is greater, except that two conductor local distribution cables (such as track circuit leads) will not require spare conductors.
- 5. Multiconductor external cable shall be made by assembling individual or twisted pairs of insulated conductors into a tight cylindrical form. Individual or twisted pairs in a cable having more than two wires shall be assembled helically and with adjacent layers wound in opposite directions.

- 6. Twisted pairs shall consist of two individually insulated conductors cabled with a length of lay as short as good construction will permit, but not longer than ten inches. Where more than one twisted pair is included, the length of lay of adjacent pairs shall differ by a minimum of one-half inch. Twisted pairs shall not be provided in combination with individual wires in the same cable. Interstices shall be filled with moisture-resistant fillers.
- 7. A marker tape printed with sequential footages at one foot intervals shall be placed with the core. In addition to the footages this marker tape shall display, at intervals of no more than 30 inches, the name of the cable manufacturer and the year in which the cable was manufactured.
- 8. The complete core assembly shall be wrapped with flame-retardant core tape or tapes with a 12.5-percent minimum lap. As an option, the core assembly shall be encased in an extruded, flame-retardant, moisture resistant, elastomeric cushion layer of the following thickness:

Core Diameter Thickness			
(inches)	(mils)		
0-1.50	47		
1.501 & larger	62		

- 9. When an extruded rubber cushion layer is used, a pull cord shall be included beneath the cushion layer to provide for efficient stripping of this layer. This cord shall be compatible with all other components of the cable.
- 10. The taped cable core shall be covered with suitable bedding tape(s) when flat metal armor tape is used or with an inner jacket when corrugated metal armor tape is used.
- 11. Multiconductor cables of eight (8) or more conductors shall have a 0.005-inch thick bronze (or a 0.007-inch thick copper alloy 194) corrugated or flat tape armor which shall be helically applied and with a minimum 20% overlap. An overall separator tape shall be applied over the armor tape to protect the armor from attack by the overall jacket material.
- 12. The core, with or without armor, shall be covered with an outer jacket having a nominal thickness in accordance with ICEA S-95-658, Table 4-5. When corrugated tape armor is used, the inner jacket or bedding tape shall be of sufficient thickness and so formulated to completely fill the voids on the underside of the corrugated metal tape. Cable jacketing material shall conform to the cable jacket specification contained herein.

- C. Cable Identification and Conductor Markings
 - 1. All external and internal wire and cables shall have the following information imprinted on the surface of the outer jacket at intervals of not more than three feet:
 - a. Manufacturer's name
 - b. Number of conductors
 - c. Size of conductors
 - d. Voltage rating
 - 2. Individual conductors of multiconductor signal cables shall be imprinted at intervals of not more than six inches with the conductor identification. The identification shall be in the form of a number printed in both numeral form and English.
 - 3. The cable and conductor markings shall be of a color which contrasts with the material on which it is imprinted and shall be of sufficient size to be easily recognized. The markings shall be permanent.

2.6 CONTROL AND INDICATION CABLE

- A. Control and indication cable for non-vital circuits
 - 1. Control and Indication cable applied in non-vital circuits, i.e., circuits the functions of which do not control or affect the ability to control operation of trains, shall conform to the following requirements:
 - a. Minimum conductor size 19 AWG
 - b. Chlorine content of insulation, maximum percent by weight 0.2
 - c. Inner jacket PE or LS TPPO
 - d. Outer jacket LS TPPO as per ICEA S-73-532 section 7.1.6
 - e. Chlorine content of jacketing materials, maximum percent by weight 0.2
 - 2. Multiconductor Special Control and Indication cables permitted under this contract shall have twisted pairs as required for the application.

B. DISTRIBUTED COMPUTER INTERCONNECTION CABLE (CAT5e/CAT 6)

- 1. Cable to be used to provide communications between microprocessor based equipment used in the Automatic Train Control System shall be fiber optic cable or industry standard networking cable and shall be:
 - a. Shielded twisted pair or shielded multiple twisted pair
 - b. Have an overall jacket that is Low Smoke Zero Halogen
 - c. Compliant with TIA/EIA 568.
- 2. All cables shall be suitable for the environment in which they are to be installed

C. FIBER OPTIC CABLE

1. Fiber Optic Cables and shall meet the requirements as specified in Section 32 42 50 – ATC - Fiber Optic Cable.



PART 3 - EXECUTION

- All conductors shall be sized per the National Electrical Code, but shall not be less than the minimum conductor sizes specified herein.
- B. Conductors shall be sized in such a manner that voltage drop at the farthest load does not exceed 3 percent during peak load conditions, except for switch machine cable power wiring as listed in section 3.07C.1.g.
- C. Wires and cables shall be installed in a neat, workmanlike manner. Cables in trays or in troughs shall be laid therein. Cables shall be installed with a minimum amount of cross-over in the trays and troughs and shall be in accordance with the cable manufacturer's recommended bending radii. All exposed wires and cables entering or leaving equipment racks or housings shall be protected from abrasion.
- D. Nylon straps shall be provided and installed for bundling and cabling of conductors where two or more single conductors of the same circuit are exposed in cable trays or cable troughs. Straps shall be installed approximately every five feet along the cable run. Wires of multiconductor cables exposed by the stripping of the cable jacket for terminations shall be trained in a neat, workmanlike manner and tied approximately every three inches with nylon straps.
- E. There shall be no point-to-point redundancy of wires for increased current capacity.
- F. Single conductor No. 14 wire shall be used for interconnecting switch machines and junction boxes, signal junction boxes and lamp compartments, and interconnecting other miscellaneous internal equipment.
- G. The smallest size wire the Contractor shall use for power cross termination and power wiring shall be No. 14 AWG. If No. 14 does not satisfy the load current requirements, the wire shall be increased in size according to the load requirements, at no additional cost to WMATA.
- H. Unless approved by the Project Manager in writing, there shall be no deviations to conductor sizes specified herein.
- I. Multiconductor external signal cables containing more than two conductors shall contain 20 percent spare conductors or two spare conductors, whichever is greater.
- J. Local distribution cable shall contain ten percent spare conductors or one spare conductor, whichever is greater, except that two conductor local distribution cables (such as track circuit leads) will not require spare conductors.

3.2 DELIVERY, STORAGE AND HANDLING

- A. Shipping, storage and handling of internal and external wire and cable shall be in accordance with the recommendations contained in Part 10.4.1 of the AREMA C&S Manual, the applicable cable manufacturer's recommendations, and as further specified herein.
- B. Cables shall be reeled in such a manner that both ends are accessible for testing on the reel. The Contractor shall ship each unit securely packaged and labeled for safe handling and shipment.
- C. Mark each single-conductor cable and each multiple-conductor cable to show UL label, size, voltage, manufacturer and number of conductors in accordance with NEC requirements.
- D. The Contractor shall store the cables in a dry and secure facility.
- E. During storage and handling prior to final conductor termination, cable ends shall be sealed to prevent the entrance of moisture.

3.3 MODULE WIRING

- A. Module wiring shall be accomplished with solderless connections.
- B. Minimum wire size shall be No. 22 AWG for stranded wire and No. 24 AWG for solid wire.

3.4 INTRA-RACK WIRING

- A. Allrack wiring shall be accomplished with solderless connections.
- B. Wire used for rack wiring shall be stranded wire, minimum size No. 20 AWG, or multiconductor cables as specified herein. Where wires of a multiconductor cable are used for intra-rack wiring, any unused conductors shall be folded back and taped.
- C. Rack wiring shall be neatly tied into compact bundles. The main bundles and branches shall be secured to the racks in a manner which shall preclude physical damage due to pressure or abrasion and prevent the wire weight from being supported by the wire terminations, connections, or plug connectors. The arrangement of the wire bundles and cables shall be such that they do not interfere with visual inspection, troubleshooting, or repair of the rack mounted equipment.



3.5 RACK-TO-RACK WIRING

Rack-to-rack wiring shall be accomplished with solderless connections using multiconductor cables as specified herein, or single conductors tied into bundles to form unjacketed multiconductor cables.

- B. Unjacketed multiconductor cables shall consist of individual conductors of size 14 AWG or larger wire and shall have a maximum tie spacing of six inches.
- C. All rack-to-rack wiring shall be routed via the overhead cable trays, with one foot of slack between the cable tray and each rack to which the cable is connected.
- D. Cables shall not be pulled into the cable trays, but shall be laid loosely and neatly in the trays with a minimum of crosses.
- E. Cable connections to all racks except the entrance racks shall be via plug connections, pre-terminated serial cable or CAT5e/CAT6 cable. Cable connections to the entrance racks may be made in the same manner as field wiring.

3.6 HIGH VOLTAGE WIRING

A. Internal wire used in circuits directly connected to the rails and internal wire used in circuits which operate at voltages in excess of 600 volts shall meet the requirements of this Section for 601 to 2500 volt service.

3.7 EXTERNAL CABLE APPLICATION

A. The Contractor shall be responsible for the sizing of all conductors greater than the minimum size specified, due to the application of the design or due to voltage losses caused by long cable runs. Where special cable configurations and/or conductor sizes larger than the minimum sizes specified herein are necessary to meet the specified operating conditions of the system, the Contractor shall provide same at no additional cost

to WMATA. Increases in required conductor size shall be in accordance with the National Electrical Code.

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- B. If the Contractor's Train Control System requires the use of shielded cable, the Contractor shall provide the required shielded cables, and all additional related terminating required to provide single-point grounding of the shield at no additional cost to WMATA. The shielded cable supplied shall meet all requirements of these cable specifications and the shield shall be grounded as specified in Section 34 44 22, Lightning/Surge Protection and Grounding Systems. Armor tape shall not be considered as a substitute for a shield. Each electrically contiguous segment of armor tape shall be grounded at only one point.
- C. The Contractor shall furnish and install the amounts of specified types of external cable necessary to provide a complete ATC System. The various types of cable and their applications shall include, but not be limited to, the following:
 - 1. GROUP I SIGNAL CABLES
 - a. Audio Frequency Track Circuits
 - An individual twisted pair cable, minimum size 16 AWG, shall be furnished and installed between the terminating point in the TCR and the associated trackside junction box for each impedance bond, track circuit bridging receiver unit, speed command transmission loop, or other track loop device.
 - 2) When these devices are located more than 4000 feet from the TCR, the minimum wire size shall be No. 14 AWG. This twisted pair shall not be part of a multiple twisted-pair cable between the TCR and a wayside distribution box.
 - 3) Individual twisted pairs for audio frequency track detection signals of the same track circuit (i.e. transmitter and receiver bond lines) shall be separated by at least two inches for any parallel length exceeding 700 feet. A grounded metal separator may be substituted for the two inch separation in cable troughs.
 - 4) Track cable leads for impedance bonds and speed command devices shall always terminate in an adjacent wayside junction box and then continue as specified to the track circuit or speed transmission device.
 - 5) In direct fixation construction, where the cable is installed in conduit between the junction box and impedance bond or speed command device, a continuation of twisted pair No. 14 or No. 16 AWG shall be used.

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- 6) In ballast construction, the cable between junction box and impedance bond and/or speed command device shall consist of No. 14 or No. 16 twisted pair cable (as applicable), installed inside cable protection of the type specified in Section 34 42 61, Audio Frequency Track and Loop Circuit Layouts, or in conduit along the edge of the crosstie. All cables and conduits shall be routed or protected in such a way to not constitute a tripping hazard.
- 7) The individual cables between a terminating receiver wayside junction box and the running rails shall be 1000-volt class cable, minimum size No. 6 AWG.
- The Contractor shall furnish and install one spare 8) twisted pair cable, identical to that specified for AF track circuit devices, along each main track between successive Train Control Rooms. The spare cable for each track between consecutive TCRs shall be terminated in both TCRs and shall be intermediately terminated in wayside unction boxes associated with AF track and speed command devices for that track. Wherever feasible, the spare cable shall be provided a service loop at each intermediate junction box without actually entering the junction box. At locations where the service loop is not feasible the spare cable shall be terminated in the junction box and the slider straps left in the open position.
- 9) Maximum allowable mutual capacitance shall be 0.095µF/Mile.
- 10) Nominal characteristic impedance shall be:
 - a) At 2kHz: 180 ohms +/- 20%
 - b) At 10kHz: 125 ohms +/- 20%
- 11) Cable to cable crosstalk attenuation for two lengths of cable from the same production run, laying side by side with cable jackets in direct contact with one another over their entire length shall exceed -90dB per 1000 feet for all frequencies between 2kHz and 10kHz



- b. \ Speed Command Loops
 - A single conductor, size 10 AWG cable shall be installed adjacent to the running rails in a loop configuration, as shown on the Contract Drawings, to provide for the transmission of speed commands through interlockings, as required. The loops so formed shall be transposed, as required, to minimize coupling to the rails.
 - 2) The No. 10 AWG cable used for speed command loops in interlockings shall have 600 volt insulation and be encased in suitably sized cable protection. See Section 34 42 61, Audio Frequency Track and Loop Circuit Layouts.
 - 3) Where the No. 10 AWG loop wires serve as leads between the track loop itself, and:
 - a) an adjacent wayside junction box; or
 - b) an impedance-matching transformer
 - c) they shall be twisted a minimum of 3 turns per foot to minimize induction radiation and interference.
 - Speed Command Loop control wires from the Train Control Room to a wayside junction box shall be twisted pair, minimum size 14 AWG, with one cable used for each speed command loop.
- c. Power Frequency Track Circuits
 - One-thousand-volt-class single conductor cable shall be furnished and installed for 60-Hz track circuits. The only exception is that, in areas of high concentration of 60-Hz track leads, these circuits may be accumulated into a dedicated 1000-volt-class multiconductor cable between the TCR and the wayside distribution junction box.
 - 2) Cable for the feed end of each 60-Hz track circuit shall be minimum size No. 10 AWG.
 - Cable for the relay end of such track circuits shall be minimum size No. 14 AWG from the TCR to the wayside junction box.
 - 4) Feed end track circuit leads extending more than 400 feet and relay end track circuit leads extending more than 1000 feet shall be increased in conductor size to compensate for the additional cable length resistance losses.



5) The cables between the wayside junction box and the running rail connections shall be single conductor, size 10 AWG, 1000 volt class, for both direct fixation and ballast construction.

- 6) Cable used for 60-Hz track circuit signal rail jumpers in crossovers shall be single conductor size 6 AWG, 1000-volt class, as shown on the Contract Drawings. The long signal-rail jumper used to connect the two "halves" of the signal rail in a diamond or universal crossover 60-Hz track circuit shall be installed in suitably sized cable protection, See Section 34 42 73 Conduit.
- d. Line Circuit Cable
 - 1) The Contractor shall furnish and install at least one 27 conductor with a minimum size of 14 AWG cable if required, for line circuits between consecutive TCRs for the route segment included in this Contract, and between the first TCR for the route segment included in this Contract and the TCRs at the tie-in locations with the existing ATC System.
- e. Controlled Signals
 - A seven conductor, size 14 AWG cable shall be furnished and installed between each controlled signal and its associated Train Control Room or wayside distribution box. See Section 32 48 68, LED Signal Layouts.

f. Switch Machines

- 1) The cables to be furnished and installed between each switch junction box and the TCR (or an interlocking distribution junction box) shall be a single seven conductor (minimum size 14 AWG) for control and indication and a single five conductor (minimum size 10 AWG) for operation, or one composite cable (made up of three or more, minimum size 10 AWG conductors) for operation, plus eight or more (minimum size 14 AWG) conductors for control, indication and spares.
- 2) The minimum size of the conductors for operation shall be increased to size 8 AWG if the distance from the switch junction box (or interlocking distribution junction box) to the TCR is more than 400 ft., and shall be increased to size 6 AWG if this distance exceeds 1000 ft. See Section 34 42 64, Track Switch Operating Layouts.

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g. \ Marker Signals

1)

A five conductor, size 14 AWG cable shall be furnished and installed between each marker signal and its associated Train Control Room or wayside distribution box. See Section 34 42 68, LED Signal Layouts.

- h. Route Selection Pushbuttons
 - A seven or twelve conductor, size 14 AWG cable, as required, shall be furnished and installed between each route selection pushbutton and its associated wayside junction box or distribution box, or the TCR. See Section 34 42 66, Wayside Pushbutton Layouts.
- i. Snowmelter Control and Indication
 - A twelve (12) conductor, size 14 AWG cable shall be furnished and installed between the TCR and each snowmelter control case for control and indication purposes, and for energization of the SM case heaters. See Section 34 42 70, Snowmelter Control Cases.
 - Snowmelter Energy Supply
 - The Contractor shall furnish and install a single conductor, No. 1/0 AWG (minimum size), 2000-voltclass underground cable between the propulsion power contact rail and the snowmelter control case via the Contact Rail Fuse Box.
- k. Snowmelter Heating Elements
 - 1) The Contractor shall furnish and install:
 - a) A single conductor, size 6 AWG, 2000-voltclass underground cable between the snowmelter control housing and each switch point snowmelter heating element controlled from that housing, and;
 - b) A single conductor, size 10 AWG, 2000-voltclass underground cable between the snowmelter control housing and each Ballast (Crib) heater unit controlled from that housing.
 - Maximum length for each of these cables shall be 75 feet unless otherwise authorized in writing by the Project Manager. See Section 34 42 69 -Snowmelter Elements, and the Contract Drawings.



A's Installation	2)	ATC Equipment in neighboring TCRs
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a.

1)

- 3. GROUP III NEGATIVE PROPULSION RETURN CABLE
 - a. Cable furnished and installed for the connection between impedance bond center taps (or shunt-bar center taps) and substation return or tiebreaker station return bus bars or moles shall be single conductor, 1000 KCMIL Class D (127 strand).

See Section 34 42 65, Track Bonding Layouts.

b. Cable furnished and installed for negative return cross bonding and switch bonding, and for connection between the impedance bonds and the running rails, shall be single conductor, extraflexible,

1000 KCMIL, Class G (427 strand) or better.

- c. An alternative shall be pairs of single conductor, 500 KCMIL, Class G (259 strand) or better Ropelay with 2000-volt-class insulation.
- d. Cable furnished and installed for negative-return, compression-bolted or mechanical bushing insert rail-web bonding shall be single conductor, 500 KCMIL, Class G (259 strand) or better Ropelay with 2000-volt-class insulation. See Section 34 42 65, Track Bonding Layouts.





Next Train Sign Control Cable

The Contractor shall furnish and install a five conductor, minimum size 14 AWG cable from the TCR to the applicable AC Service Room in each Terminal Station. The routing for each of these cables shall be as previously approved by the designated Project Manager.

2. GROUP II - CONTROL AND INDICATION CABLE

1) ATC equipment in each TCR Equipment in Communications Room

The Contractor shall furnish Control and Indication Cable

(including Distributed Computer Interconnection Cable or Fiber Optic Oable) as required for installation between:

3.8 **CABLE INSTALLATION**

1.

A.

General

The installation of wire and cable shall conform to Part 10.4.30 and Part 10.4.1 (Wires & Cables) of the AREMA C&S Manual except as modified herein.

- 2. The Contractor shall notify the Project Manager at least 24 hours prior to installing cables.
- 3. The Contractor shall provide sufficient slack in cable conductors at all terminating posts to enable three reterminations of the conductor due to broken eyelets without reservicing or repotheading the cable. In types of installation where the cable cannot be constrained, sufficient cable slack shall be provided to prevent damage to the cable due to vibration.
 - Cable splices will not be allowed as a normal installation practice for non-vital circuits, and will not be permitted for cables carrying vital circuits. Cables carrying vital circuits over long distances, such as the wayside TCR-to-TCR cables, shall be terminated in wayside junction boxes in lieu of being spliced. Intermediate junction boxes shall not be installed prior to approval of their construction, configuration and location by the Project Manager. Upon written request, and only under extreme circumstances and because of installation hardship, will the use of cable splicing in certain on-vital cable runs be considered, all subject to the designated Project Manager's prior approval.
- 5. All cable entrance openings in equipment enclosures, manholes and junction boxes shall be sealed with either a compression type fitting or pliable sealing compound after the cable is in place. Sealing compound shall be used to seal the area around cable where the cable emerges from the end of a conduit, pipe or duct bank. The Contractor shall install conduit sealing bushings in the ends of all unused Train Control conduits to prevent fluids or gases in the conduits from entering the enclosure. A suitable lubricating medium (Cable Pulling Lubricant), as specified in Section 34 42 73, shall be used when pulling cables into conduit, pipe, or duct bank.
- 6. Where cable transfers from trays or troughs to conduit the ends of the conduit shall, for guidance, be fitted with plastic end belts to prevent damage to the cable.
- 7. Wherever multiple conductor cables are terminated the outer sheath of the cable shall be carefully removed to the point of cable entrance. At the end of the cable sheath or covering, two layers of plastic electrical tape shall be applied. As an alternative, the Contractor shall apply a heat shrink sleeve to the end of the cable sheath.



Buried Installation B-

Horizontal runs of buried cable greater than 15 feet shall be installed in PVC conduit per the requirements of this Section. a. NOT IN CONTRACT "EXAMPLE" of WMATA's Installation Process b.

neatly, but loosely on this sand bed, with a minimum of cable crossings. The cable shall then be covered with a minimum of four inches of sand before backfilling. Loam or clay, free of lumps, stones or other debris, may be substituted for sand only with the prior written approval of the Project Manager. Backfill shall be compacted to not less than 95 percent of the maximum dry density of the respective materials as in accordance with determined by AASHTO Test Designation T-99.

Cable shall be buried to a uniform depth of not less than 30

inches. A bed of sand at least four inches thick shall be provided in the bottom of the trench. The cable shall be laid

Cable passing under tracks or under ballast, or within track right-of-way shall normally be installed in conduit provided by Track right-of- way is defined as an others. area encompassing the ties and rail and extending two feet beyond the ends of each tie. When no conduit has been provided in such an area, the Contractor shall furnish Schedule 80 PVC conduit for this pulpose and shall bury this conduit not less than 30 inches below the ties. See Section 34 42 73, Conduit

- In all areas beyond the right-of-way area where cables cannot c. be buried to a uniform depth of 30 inches, the Contractor shall, at no additional cost to WMATA, either install surface trench or install the cable in concrete encased Schedule 80 PVC to the maximum uniform depth allowable by field conditions. At transition areas between buried and non-buried installation, the cable shall be protected by Schedule 80 PVC. Horizontal runs of PVC buried at or greater than a depth of 30 inches will not require concrete encasement.
- Where cable leaves the ground at other than buildings, or in d. foundations or pedestal mounted junction boxes, it shall be protected by Schedule 80 PVC conduit.
- The cables used as track leads between the rail connections e. and the wayside junction box shall be protected by vertical bootlegs of heavy duty, two-ply, fiber reinforced, one-inch I.D. neoprene hose where they pass through the ballast and the subgrade. Cable not extending beyond the far rail shall be placed in Schedule 80 PVC conduit which shall be clamped to the side of the crosstie as shown on the Contract Drawings.
- Cable shall be installed in epoxy-coated rigid steel conduit f. wherever the cable passes under pavement or roadway. This pipe shall extend two feet beyond the edges of the \setminus pavement.

- g. The Contractor shall be responsible for all shoring required to prevent undermining and cave-ins during cable burying operations and shall also be responsible for any damages or lost time resulting from inadequate shoring. Any trench over 3 feet deep shall be shored.
- h. Where a buried cable enters a conduit, pipe, pedestal, or concrete foundation, for an equipment case, junction box, or other piece of Train Control equipment in which the cable is to be terminated, or bootlegs for track circuit or snowmelter connections, a five foot slack coil of that cable shall be installed in a trench below the point of entrance.
- i. Cable carrying 600 volts or more shall not be installed in the same trench as signal or other low voltage cable without prior written consent of the Project Manager.
- j. If signal, communication or track circuit cables, due to installation hardship, must be installed in the same trench as, or are required to cross cable carrying current at 600 or more volts, these low voltage cables shall be installed so that the distance between them and the high voltage cables shall not be less than 30 inches for all the cables. Where the high and low voltage cable cross or diverge, the area between the two types of cable shall be filled with sand to a distance of two feet along each type of cable from the point of their nearest proximity.
- k. Locate, dig and backfill the cable trench with a minimum of disturbance to the right-of-way. The Contractor shall reestablish and/or repair any portion of the right-of-way and/or drainage system that may be disturbed by the cable burying operations. Excess spoils shall be evenly distributed along the right-of-way if digging operations are at the subgrade level and ballast has not yet been installed. If ballast has been installed, care shall be taken to cover the ballast during digging operations in order to keep the ballast clear of spoils. In the latter case, excess spoils shall be removed from the property and disposed of at no additional cost to WMATA.
- I. Install cable marking tape at a depth of six inches while backfilling each cable trench.



C. Non-Buried Installation

a.

2

Direct Fixation in Tunnel Areas

Train control cables shall be installed along the tunnel walls in an organized fashion within the area allotted to them. Cable crosses shall be kept to a minimum. The topmost cable(s) shall be assigned for through runs with local cable(s) below them to facilitate cable branching into the wayside equipment in an orderly manner. Where the Contractor has more cable than will fit in the allocated area, the Contractor shall furnish and install additional approved cable mounting devices at no additional cost to WMATA. Cable runs along tunnel walls shall not interfere with access to grab bars located on the tunnel walls at access points to the safety walk.

- b. Channel inserts will have been provided by others for the Contractor's use, mounted on approximately four foot centers in the tunnel walls. The Contractor shall furnish and install fastenings or mounting devices to secure the cables to the channel inserts. These fasteners shall be properly sized to the cable, or shall be adjustable to the proper size to support the cable without undue compression. Prior to cable installation the Contractor shall clear and remove any foreign material from the channel inserts where necessary. Where channel inserts are missing, the Contractor shall provide a substitute device which performs the same function and is acceptable to the Project Manager. Any additional work and materials involved with the installation of the substitute device shall be provided at no additional cost to the Authority.
- c. Sufficient slack shall be provided in the cable between fasteners to allow for expansion and contraction of the cable without damage to the cable or the fasteners.
- 2. Installation in Trays, Troughs or Surface Trench
 - a. Cable installed in trays, troughs or surface trench shall be laid therein and not pulled into place. Cables installed in trays, troughs and surface trench shall have a minimum amount of crossover and shall not be pulled tightly around bends.



- 3. Installation in Conduit or Pipe
 - Remove any foreign material from conduits by using an appropriate mandrel. The Contractor shall then clear or swab dry each conduit or pipe before installing cable therein. It shall be the Contractor's responsibility to prove existing conduits prior to use. The Contractor shall maintain the conduits and/or pipe in a clean and dry condition during the installation process up to and including the time each conduit or pipe is sealed as specified, at no additional cost to the Authority.
 - b. The Contractor shall have an approved Pull Sheet in his possession for each cable pull executed, and shall record thereon the date of the pull, the method used, the maximum pull tension experienced for each applicable pull, and other pertinent data. The Contractor shall resubmit a copy of each completed Pull Sheet to the designated Contract Administrator within one week of the pull. See Part 1.08 G of this Section.
 - Conduct cable pulls in accordance with the cable manufacturer's recommendations. In the absence of any specific recommendations, the Contractor shall use an such approved wire cable grip extending not less than 18 inches back from the end of the cable when pulling cable. The clutch on the pulling device shall be set to slip at 50 percent of the weight per 1000 feet of the cable to be pulled or at the manufacturer's maximum force rating, whichever is less. The equipment used for pulling cable shall be equipped with a dynamometer which shall indicate the pulling force in pounds. An approved cable pulling lubricant, as specified in Section 16978, shall be applied to the cable when installing cable in conduit or pipe.
 - d. Cables shall not cross one another when they are pulled into a conduit or pipe and care shall be taken not to have the conductors pulled tight or kinked in conduit fittings or boxes. All cables to be installed in a given conduit or pipe shall be pulled and installed simultaneously.
 - e. Furnish and install potheads and filling compound where cables enter or leave conduit or pipe. The potheads and filling compounds shall be as specified in Section 34 42 78, Miscellaneous Train Control Components and Materials, and shall be applied in conformance with the manufacturer's instructions.
 - f. Local cable runs from wayside equipment in direct fixation to the trackside junction boxes shall be installed in embedded conduit which has been provided by others. Where embedded conduit is not provided by others for this purpose, the Contractor shall chip and grout the required conduit in place below the structure surface. In doing this work, the Contractor shall not cut any concrete reinforcing bars without the prior written approval of the WMATA Project Manager.



- 4. Installation in Manholes and Pull Chambers
 - a.` Furnish and install clamps or other cable restraining hardware in manholes or other areas where support is needed for cables entering or leaving conduit or pipe or passing through the manhole. Apply an identification tag to each TC cable in every manhole.
 - Suffigient slack shall be provided in each cable so that the bending radius of each cable shall not be less than 20 times the diameter of the cable. Where the specified minimum bending radii of cables do not allow strapping or clamping to channel inserts, the Contractor shall furnish and install approved matchole racks with insulators to support the cables.
 - All mounting and fastening materials used for this C. application by the Contractor shall be stainless steel, as specified in Section 34 42 15, Basic Equipment Requirements. Use of anodized aluminum channel is unacceptable in manholes and pull chambers.
 - Cables shall be installed in a manner which will prevent their d. injury by persons and equipment entering and exiting the manholes via ladders or other climbing devices.
 - Install and support cable in manholes and pull chambers in e. accordance with the approved version of drawings he has submitted for this work.
- 5. **Special Installation Requirements**
 - Provide sufficient slack in all cable installation runs to prevent a. damage to the cable or its terminations due to expansion or contraction.
 - Provide appropriate special protection for cables in areas b. where the cables are unavoidably exposed to hazardous conditions such as vibration or sharp corners on equipment. The Contractor shall be responsible for replacing, at no additional cost to the Authority, any cable he has installed which is subsequently damaged as a result of his failure to provide such special protection.

END OF SECTION

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of WMATA's Installation Pr

b.

Technical Requirements

Fiber Optic Cables

Fiber Optic Cables: Single Mode Fiber, Single Jacket, Single Corrugated Steel Armor 288 strand and 24 strand versions meeting the following specifications:

1. General Specifications

General Specifications required for both 24 strand and 288 strand cables:

- Single Mode ITU G.657.A1 compliant bend insensitive fiber
- Indoor/ Outdoor Plant rated
- Certified LSZH (Low Smoke Zero Halogen)
- Certified NFPA 130 (2014) compliant
- Stranded Loose tube configuration, twelve fibers per buffer tube
- Gel-free or some form of 'easy clean' gel is acceptable
- Corrugated steel crush resistant armor
- Certified compliant with standards GR-20, EIA/TIA *598*, ICEA S-87-640, UL 1666, UL 1685
- UL listed OFCR-LS
- LSZH Flame-Resistant outer jacket, Orange in color

2. Optical Specifications

Optical Specifications required for both 24 strand and 288 stand cables:

- Fiber Type: Single Mode, Bend Insensitive, ITU G.657.A1 compliant
- Fiber Core Diameter: 8.3 microns
- Modal Field Diameter: 9.2 +/- 4 microns
- Maximum Attenuation : 0.35 dB/km @ 1310 nm, 0.25 dB/km @ 1550 nm
- Cutoff wavelength:< 1260 nm

3. Cable Strength / Environmental Specifications

Mechanical and Environmental Specifications required for both 24 strand and 288 strand cables:

- Compressive Strength : Incidental Compressive Load: 220 N/cm (125 lbf/in) minimum
- Compressive Strength: Long Term Load: 110 N/cm (63 lbf/in) minimum
 - Tensile Loading: Installation: 600 lb (2700 N) minimum
 - Tensile Loading: Long Term: 200 lb (890 N) minimum
 - Temperature Operating:
 - Storage/
 - Installation:

4. Cable Construction

Cable Construction Specifications required for both 24 stand and 288 strand cables:

- Central Strength Member
- Stranded Loose tube configuration, twelve fibers per buffer tube
- 288 strand cable: 24 buffer tubes of 12 fiber strands each
- 24 strand cable : 2 buffer tubes of 12 fiber strands each
- Buffer tubes helically stranded around central strength member
- Fiber colors and buffer tube colors as per TIA/EIA-598
- Buffer Tube Jacket Material: Riser Rated Low Smoke Zero Halogen Polyolefin
- Gel-free or some form of 'easy clean' gel is acceptable
- Filler rods or tubes as may be necessary (24 fiber cable only)
- Water blocking tape
- Core is Helically Wrapped with Dielectric Water-Blocking Strength Members
- Ripcords: minimum of two
- Corrugated steel crush resistant armor
- LSZH Flame-Resistant outer jacket, Orange in color
- Outer jacket print as detailed in Section 5

5. Jacket Print Sample

Outer Jacket Print shall include at a minimum:

<manufacturer > WAS OPTICAL CABLE ITU.G.657.A1 SM xxxF <manufact u rer's model number> TYPE OFCR-LS UL1666 NFPA 130 (2014) MM/YY fffff FEET

where xxx is number of fibers (24 or 288) MM/YY is month and year of manufacture fffff is sequential footage marker, every two feet

APPENDIX A-1

SPECIAL PROVISIONS

SPECIAL PROVISIONS

1. <u>PERIOD OF PERFORMANCE</u>

- **a.** The period of performance is Five (5) calendar Years commencing on the date of award.
- b. The first delivery order of 6,000 lineal feet of Price Schedule Sheet, Item No. 3 (Class D -169) Non-Shielded, 1500 kcmil cable must be delivered within 120 calendar days after award. Refer to First Article, section 8 for additional information.
- c. The first delivery order 6,000 lineal feet of Price Schedule Sheet, Item No. 1 (Class D - 127) Shielded, 1000 kcmil cable must be delivered within 120 calendar days after award. Refer to First Article, section 8 for additional information.
- d. The first delivery order of 5,000 lineal feet of Price Schedule sheet Item No. 53 (2C #14 WZ) cable must be delivered within 120 calendar days after award. Refer to First Article, section 8 for additional information.
- **e.** After the initial lineal foot order above, each subsequent order shall be delivered within 120 calendar days after receipt of order.
- f. The first delivery order of 50,000, lineal feet each of Price Schedule Sheet, Item No. 64 and 65 (Corrugated Steel Fiber Optic Cable 144 and 288 Fiber Single Mode) must be delivered within 60 calendar days after award.

The second delivery of 150,000 lineal feet each of No. 64 and 65 (Corrugated Steel Fiber Optic Cable 144 and 288 Fiber Single Mode) must be delivered within 45 calendar days after first delivery. Refer to First Article, for additional information.

 g. The first delivery order of 30,000, lineal feet each of Price Schedule Sheet, Item No. 66 and 67 (Corrugated Steel Fiber Optic Cable 72 and 24 Fiber Single Mode) must be delivered within 60 calendar days after award.
 The second delivery of 130,000 lineal feet each of No. 66 and 67 (Corrugated Steel

Fiber Optic Cable 72 and 24 Fiber Single Mode) must be delivered within 45 calendar days after first delivery. Refer to First Article, for additional information.

h. After the initial lineal foot order above, each subsequent order of Corrugated Steel Fiber Optic cable shall be delivered within 60 calendar days after receipt of order.

2. PRICING

- **a.** Prices on the Price Schedule Sheets submitted must include all associated costs, including but not limited to, delivery, freight, travel, markups, overhead, and profit.
- **b.** The Unit Prices on Price Schedule Sheet shall be subject to two price escalation types for the cost of materials: Copper Prices and Non Copper Component Prices.
- c. Price Escalation All price adjustments will be calculated by the Authority.
- **d.** The Copper Price baseline adjustment will be based upon the Wall Street Journal (WSJ) copper price per pound as of the date of advertisement, March 5, 2018. Thereafter, this adjustment will apply to each delivery order. The current WSJ cash pricing can be found here http://online.wsj.com/mdc/public/page/2_3023-cashprices.html?mod=topnav_2_3012 (See Example 1)
- e. The Non Copper price component adjustments will be based upon the component value as of one year prior to the date of advertisement, March 5, 2018.

Thereafter, this adjustment will apply to each delivery order. The adjustment will be based on the United States Department of Labor, Bureau of Labor Statistic Producer Price Index Industry, Data Series Id: PCUOMFG--OMFG – Industry: Total manufacturing industries, Product: Total manufacturing industries. The current Producer Price Index can be found here

https://data.bls.gov/timeseries/PCUOMFG--OMFG--?data_tool=XGtable_

(See Example 1)

3. PAYMENT TERMS

Please also see Chapter V (Invoices/Payments/Deductions; Billing & Payment)

- a. Discounts for prompt payment will not be considered in the evaluation of offers. However, any offered discount will form a part of the award, and will be taken if payment is made within the discount period indicated in the offer by the Offeror.
- b. Payments will be made upon delivery, inspection and satisfactory acceptance of equipment and receipt of a proper invoice.
- c. Partial payments are authorized.

4. POINT OF CONTACT

All inquiries are to be directed to:

Contract Administrator

WMATA/PRMT 600 Fifth Street N. W. Washington, D.C. 20001 mdRodriguez@wmata.com Tel. (202) 962-2456

COTR

WMATA – Project Coordinator -Power 8100 Professional Place, Suite #206 Hyattsville, MD 20785 <u>snhicks@wmata.com</u> Tel. (301) 955-5048

5. ORDERING

Please also see Chapter I Terms & Conditions (6. Ordering)

- (a) Oral orders will be followed up by a written communication.
- (b) Orders will include the following information:
 - (1) Date of the order;
 - (2) Contract number and an order number;
 - (3) Item number, description, quantity, and unit price;
 - (4) Adjusted price based on market data (if applicable);
 - (5) Delivery or performance date;
 - (6) Place of delivery or performance;
 - (7) Packaging, packing, and shipping instructions (if any);
 - (8) Accounting and appropriations data; and
 - (9) Any other pertinent information.

Example 1

Copper Price Adjustment Calculator (1000kcmil ONLY): Contract #FQXXXX Advertise Date 12/4/2017

Copper Price based on WSJ:	Order Date
Date of Previous Copper Close Price from WSJ:	February 7, 2018

Bid Price by type: Type 1 - Class D (127) Shielded \$19.00 Type 4 - Class D (127) Non-Shielded \$20.00 Type 2 - Class G (427) Shielded \$25.65 Type 5 - Class G (427) Non-Shielded \$15.22

WSJ price per contract:
Copper weight per foot per specifications (1000kcmil):
Current Copper Price (Previous):

Price adjustment per foot	
Fixed Price per Contract:	\$3.0655
WSJ Previous:	\$3.1775
Difference:	\$0.1120

Copper Cost per Lineal Foot Adjustment:

Actual Copper Weight per specification:	\$3.0990
Difference (multiplied):	\$0.1120
Adjustment Required:	\$0.35

Quantity and Type of Cable, this order:

Type 1 - Class D (127) Shielded	
Type 4 - Class D (127) Non-Shielded	10,0
Type 2 - Class G (427) Shielded	
Type 5 - Class G (427) Non-Shielded	

Non-Copper Components Price Adjustments Calculator (1000kcmil only): Contract #FQXXXX Advertise Date 12/4/2017 Section 2.e

Copper weight per foot per specifications:

Section 2.d WSJ price per contract:

Section 2.e

Cooper Price per Lineal Foot

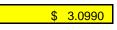
Bid Price by type as awarded:

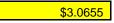
Type 1 - Class D (127) Shielded

0 000

\$3.0655 3.0990

\$3.1775







(Copper Weight X WSJ Price Per Contract= New Copper Price Per LF)

\$19.00

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY SUPPLY AND SERVICE CONTRACT (IDIQ) Contract No.: FQ18050 Dec. 22, 2017

Type 4 - Class D (127) Non-Shielded	
Type 2 - Class G (427) Shielded	
Type 5 - Class G (427) Non-Shielded	

\$20.00
\$25.65
\$15.22

Section 2.e

Non-Copper Components Base Price

Non-Copper Components Price Adjustments Type 1

Non-Copper Components Price Adjustments Type 4

Non-Copper Components Price Adjustments Type 2

Non-Copper Components Price Adjustments Type 5

Section 2.e

PCUOMFG--OMFG Index (12-2016) (month advertise date- previous year)

PCUOMFG--OMFG Index (8-2017) (most recent month that does not have a P index)

Change Index

Percentage Change

Non-Copper Components Base Price Escalation Type 1

Non-Copper Components Base Price Escalation Type 4 Non-Copper Components Base Price Escalation Type 2 Non-Copper Components Base Price Escalation Type 5

|--|

Type 1 - Class D (127) Shielded	\$19.58	
		(Bid Price + New Copper Cost Per LF+PPI Change
		Percentage= New Price)
Type 4 - Class D (127) Non-Shielded	\$20.60	\$20.00+.35+.26=20.60
Type 2 - Class G (427) Shielded	\$26.39	
Type 5 - Class G (427) Non-Shielded	\$15.71	
Order #1 Information:		
Type 1 - Class D (127) Shielded	\$0.00	
Type 4 - Class D (127) Non-Shielded	\$206,040.21	
Type 2 - Class G (427) Shielded	\$0.00	
Type 5 - Class G (427) Non-Shielded	\$0.00	
		_
TOTAL:	\$206,040.21	

(12/2016 Index - 8/2017 Index = Change Index) (Change Index/12/2016 Index= Percentage Change)

Non-Copper Components Price Adjustment Type 4 x Percentage Change= Non **Copper Component Price** Escalation

\$9.50	
	(Bid price - New Copper Price Per LF= Non-Copper Component Price Adjustment
\$10.50	Type 4)
\$16.15	

\$5.72

183.9

188.4

2.45%

\$0.23

\$0.26 \$0.40

\$0.14

4.5

APPENDIX B

ATTACHMENT A

NOTICE OF REQUIREMENTS FOR DISADVANTAGED BUSINESS ENTERPRISE (DBE)

May 2015

~Applies only if proposal price is \$500,000 or more for a construction contract or \$150,000 or more for a supply and service contract.

~APPENDIX B~

DISADVANTAGED BUSINESS ENTERPRISE (DBE)

1. DISADVANTAGED BUSINESS ENTERPRISE (DBE) REQUIREMENT:

A. The DBE requirements of the Authority's DBE Program Plan apply to this contract. Accordingly, the Contractor shall carry out the requirements of the Authority's DBE Program Plan and this Appendix in the award and administration of this U.S. Department of Transportation (US DOT) assisted contract.

2. POLICY:

A. It is the policy of the Authority (WMATA), the Federal Transit Administration (FTA) and the US DOT that Disadvantaged Business Enterprises (DBEs) shall compete fairly to receive and participate in performing federally assisted contracts, including contracts and subcontracts at any tier. It is further the policy of the Authority, the FTA and the US DOT that its prime contractors establish procedures to ensure the timely payment of amounts due pursuant to the terms of their subcontracts. The Contractor hereby agrees to carry out this policy in the award and administration of subcontracts to the fullest extent possible consistent with efficient Contract performance.

3. CONTRACT GOAL:

- A. If the bidder is not a DBE, the bidder agrees that the DBE goal for this Contract shall be met by subcontractors or by joint ventures with DBEs. The goal set forth for this Contract is <u>1</u>% of the final Contract price, including amendment and modification. The amount of DBE participation will be determined by the dollar value of the work performed and/or supplies furnished by DBE firms as compared to the total value of all work performed and/or supplies furnished under this Contract. The Contractor shall have met this goal if the Contractor's DBE participation meets or exceeds this goal.
- B. In cases where work is added to the Contract by modification such that additional DBE participation is necessary to meet this goal, the Contractor shall increase the participation of one or more firms listed on the "Schedule of DBE Participation" or submit additional DBE certified firms to meet the goal. In cases where work is deleted from the Contract, the goal shall be applicable to the new Contract amount. The Contractor shall be permitted to meet the goal by revising its DBE participation, provided, however, that the revision shall not result in DBE participation that is less than the original goal.

4. DEFINITIONS:

- A. **Appendix B.** The Notice of Requirements for Disadvantaged Business Enterprise, which when attached to a solicitation, implements the DBE requirements of the Authority's DBE Program Plan in the award and administration of federally funded Authority contracts.
- B. Certified DBE. means a for-profit small business concern (a) that is at least fifty one percent (51%) owned by one or more individuals who are both socially and economically disadvantaged or, in the case of a corporation, in which fifty one percent (51%) of the stock is owned by one or more such individuals; (b) whose management and daily business operations are controlled by one or more of the socially and economically disadvantaged individuals who own it; and (c) whose eligibility is evidenced by a current WMATA Certification letter, a D.C. Department of Transportation Certification letter, or a certification letter issued by the Metropolitan Washington Unified Certification Program (MWUCP).
- C. **Contractor.** One who participates, through a contract or subcontract (at any tier), in a US DOT assisted highway, transit or airport program.
- D. **DC DOT.** The District of Columbia Department of Transportation.
- F. Good Faith Efforts. Efforts to achieve a DBE goal or other requirements of the Authority's DBE Program Plan which by their scope, intensity, and appropriateness to the objective, can reasonably be expected to fulfill the goal program requirement.
- G. **Joint Venture.** An association of a DBE firm and one (1) or more other firms to carry out a single, for-profit business enterprise, for which the parties combine their property, capital, efforts, skills and knowledge, and in which the DBE is responsible for a distinct, clearly defined portion of the work of the contract and shares in the capital contribution, control, management, risks, and profits of the joint venture commensurate with its ownership interest.
- H. **Metropolitan Washington Unified Certification Program (MWUCP).** A unified certification program mandated by 49 C.F.R. §26.81 between two Federal transit recipients (WMATA and the D.C. Department of Transportation). The agreement became effective January 2005.
- I. **Pre-certification.** A requirement under 49 C.F.R. §26.81(c) that all certifications by the MWUCP be made final before the due date for bids or offers on a contract on which a firm seeks to participate as a DBE.
- J. **Race-conscious.** A measure or program that is focused specifically on assisting only DBEs, including women-owned DBEs.
- K. **Race-neutral.** A measure or program that is, or can be, used to assist all small businesses. For the purposes of the DBE program, race-neutral includes gender-neutrality.

- L. **Small Business Concern.** With respect to firms seeking to participate as DBEs in US DOT assisted contracts, a small business concern as defined pursuant to Section 3 of the Small Business Act and Small Business Administration implementing regulations (13 C.F.R. Part 121) that also does not exceed the cap on average annual gross receipts specified in 49 CFR § 26.65(b).
- M. **Socially and Economically Disadvantaged Individual.** Any individual who is a citizen (or other lawfully admitted permanent resident) of the United States and who the Authority finds to be a socially and economically disadvantaged individual on a case-by-case basis, and any individual in the following groups, members of which are rebuttably presumed to be socially and economically disadvantaged.
 - (1) Black Americans, which includes persons having origins in any of the Black racial groups of Africa;
 - (2) Hispanic Americans, which includes persons of Mexican, Puerto Rican, Cuban, Dominican, Central or South American, or other Spanish or Portuguese culture or origin, regardless of race;
 - (3) Native Americans, which includes persons who are American Indians, Eskimos, Aleuts, or Native Hawaiians;
 - (4) Asian-Pacific Americans, which includes persons whose origins are from Japan, China, Taiwan, Korea, Burma (Myanmar), Vietnam, Laos, Cambodia (Kampuchea), Thailand, Malaysia, Indonesia, the Philippines, Brunei, Samoa, Guam, the U.S. Trust Territories of the Pacific Islands (Republic of Palau), the Commonwealth of the North Marianas Islands, Macao, Fiji, Tonga, Kiribati, Juvalu, Nauru, Federated States of Micronesia, or Hong Kong;
 - (5) Subcontinent Asian Americans, which includes persons whose origins are from India, Pakistan, Bangladesh, Bhutan, the Maldives Islands, Nepal or Sri Lanka;
 - (6) Women; and
 - (7) Any additional groups whose members are designated as socially and economically disadvantaged by the SBA, at such time as the SBA designation becomes effective.
- N. US DOT Assisted Contract. Any contract between the Authority and a contractor (at any tier) funded in whole or in part with US DOT financial assistance, including letters of credit or loan guarantees.
- O. Unified Certification Program (UCP). The program mandated by 49 C.F.R. § 26.81(a), which requires all U. S. DOT recipients of Federal financial assistance to participate in a statewide certification program by March 2002.
- P. WMATA. Washington Metropolitan Area Transit Authority, the transit system (rail and bus) serving the metropolitan Washington area, including parts of Virginia and Maryland.

5. HOW DBE PARTICIPATION IS COUNTED TOWARDS THE CONTRACT GOAL:

DBE participation shall be counted towards meeting the DBE goal in accordance with the following:

- A. When a DBE participates in a contract, only the value of the work actually performed by the DBE is counted towards the DBE goal.
 - (1) This amount includes the entire amount of that portion of a construction contract that is performed by the DBE's own forces. This amount includes the cost of supplies and materials obtained by the DBE for the work of the contract, including supplies purchased or equipment leased by the DBE (except supplies and equipment the DBE subcontractor purchases or leases from the prime contractor or its affiliate).
 - (2) This amount includes the entire amount of fees or commissions charged by a DBE firm for providing a bona fide service, such as professional, technical, consultant, or managerial services, or for providing bonds or insurance specifically required for the performance of the contract, towards the DBE goal, provided the fee is reasonable and not excessive as compared with fees customarily allowed for similar services.
 - (3) When a DBE subcontracts part of its work under the contract to another firm, the value of the subcontract work may be counted towards the DBE goal only if the DBE's subcontractor is itself a DBE. Work that a DBE subcontracts to a non-DBE firm does not count towards the DBE goal.
- B. When a DBE performs as a participant in a joint venture, the portion of the total dollar value of the contract equal to the distinct, clearly defined portion of the work of the contract that a DBE performs with its own forces towards the DBE goal may be counted.
- C. Expenditures to a DBE contractor towards the DBE goal may be counted only if the DBE is performing a commercially useful function on that contract.
 - (1) A DBE performs a commercially useful function when it is responsible for execution of the work of the contract and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. To perform a commercially useful function, the DBE must also be responsible, with respect to materials and supplies used on the contract, for negotiating price, determining quality and quantity, ordering the material, and installing (where applicable) and paying for the material itself. To determine whether a DBE is performing a commercially useful function, the Authority will consider the amount of work subcontracted, industry practices, whether the amount the firm is to be paid under the contract is commensurate with the work it is actually performing and the DBE credit claimed for its performance of the work, and other relevant factors.
 - (2) A DBE does not perform a commercially useful function if its role is limited to that of an extra participant in a transaction, contract, or project through which funds are passed in order to obtain the appearance of DBE participation.

- (3) If a DBE does not perform or exercise responsibility for at least 30 percent of the total cost of its contract with its own work force, or if the DBE subcontracts a greater portion of the work of a contract than would be expected on the basis of normal industry practice for the type of work, the Authority will presume that the DBE is not performing a commercially useful function.
- D. The following factors will be used by the Authority in determining whether a DBE trucking company is performing a commercial useful function:
 - (1) The DBE must be responsible for the management and supervision of the entire trucking operation for which it is responsible for on a particular contract, and there cannot be a contrived arrangement for the purpose of meeting the DBE goal.
 - (2) The DBE must itself own and operate at least one fully licensed, insured and operational truck used on the contract.
 - (3) The DBE receives credit for the total value of the transportation services it provides on the contract using trucks it owns, insures, and operates using drivers, it employs.
 - (4) The DBE may lease trucks from another DBE firm, including an owneroperator who is certified as a DBE. The DBE who leases trucks from another DBE receives credit for the total value of the transportation services the lessee DBE provides on the contract.
 - (5) The DBE may also lease trucks from a non-DBE firm, including an owneroperator. The DBE who leases trucks from a non-DBE is entitled to credit only for the fee or commission it receives as a result of the lease arrangement. The DBE does not receive credit for the total value of the transportation services provided by the lessee, since these services are not provided by a DBE.
 - (6) The lease must indicate that the DBE has exclusive use of and control over the truck. This does not preclude the leased truck from working for others during the terms of the lease with the consent of the DBE, so long as the lease gives the DBE absolute priority for use of the leased truck. Leased trucks must display the name and identification number of the DBE.
- E. The following factors will be used to count expenditures with DBEs for materials or supplies towards the DBE goal:
 - (1) If the materials or supplies are obtained from a DBE manufacturer, one hundred percent (100%) of the cost of the materials or supplies will be counted towards the DBE goal. A manufacturer is a firm that operates or maintains a factory or establishment that produces, on the premises, the materials, supplies, articles, or equipment required under the contract and of the general character described by the contract.

- (2) If the materials or supplies are purchased from a DBE regular dealer, sixty percent (60%) of the cost of the materials or supplies will be counted towards the DBE goal. A regular dealer is a firm that owns, operates or maintains a store, warehouse, or other establishment in which the materials, supplies, articles or equipment of the general character described and required under the contract are bought, kept in stock, and regularly sold or leased to the public in the usual course of business. To be a regular dealer, the firm must be an established, regular business that engages, as its principal business and under its own name, in the purchase and sale or lease of the products in question. A person may be a regular dealer in such bulk items as petroleum products, steel, cement, gravel, stone or asphalt without owning, operating, or maintaining a place of business as provided in this paragraph if this person both owns and operates distribution equipment for the products. Any supplementing of regular dealers' own distribution equipment shall be by long-term lease agreement and not on an ad hoc or contract-by-contract basis. Packagers, brokers, manufacturers' representatives, or other persons who arrange or expedite transactions are not regular dealers within the meaning of this paragraph.
- (3) With respect to materials or supplies purchased from a DBE which is neither a manufacturer nor a regular dealer, the entire amount of fees or commissions charged for assistance in the procurement of the materials and supplies, or fees or transportation charges for the delivery of materials and supplies required on a job site, may be counted towards the DBE goal, provided the fees are reasonable and are not excessive as compared to fees customarily allowed for similar services. The cost of the materials and supplies themselves may not be counted towards the DBE goal.
- F. All DBE firms must be pre-certified. Participation by a firm that is not currently Authority certified as a DBE at the time of bid opening, does not count towards the DBE goal. All DBE firms must be in compliance with 49 CFR, Part 26.
- G. The dollar value of work performed under this Contract by a firm that MWUCP decertifies as a DBE does not count towards the DBE goal.
- H. The participation of a DBE subcontractor does not count towards the Contractor's DBE goal, until the amount being counted towards the goal has been paid to the DBE.

6. BIDS AND REQUIREMENTS (WITH THE BID):

The bidder shall submit the following with its bid. Any bidder who fails to complete and return this information with its bid shall be deemed to be not responsive and may be ineligible for Contract award. Bidders that fail to meet the DBE goal above and fail to demonstrate "good faith efforts" to justify waiver of the DBE goal (See paragraph 6.C. below) shall be deemed to be not responsible and will be ineligible for Contract award.

- A. Completed "Schedule of DBE Participation" (Attachment B-1) sufficient to meet the above goal. If the bidder is a DBE firm and intends to satisfy the appropriate DBE requirement with its own firm, it must indicate in the Schedule the area of work and percentage it will perform to satisfy the goal. All offerors must attach current WMATA, DC DOT or MWUCP certification letters for each DBE listed on the Schedule.
- B. Executed "Letters of Intent to Perform as a Subcontractor/Joint Venture" (Attachment B-2). If the bidder is not a DBE or intends to satisfy the requirements through other DBE firms, then it must attach these letters from each certified DBE listed on the Schedule.
- C. Justification for grant of relief (Appendix B waiver of DBE goal). If in the submittal of its bid, the bidder fails to meet the DBE goal above, the bidder has the burden of furnishing sufficient documentation with its bid of its "good faith efforts" to justify a grant of relief (waiver) from the goal or portion of the goal. Such justification shall be in the form of a detailed report. The following is a list of actions that shall be considered as part of the bidder's good faith efforts to obtain DBE participation. This list is neither a mandatory checklist nor is it intended to be exclusive or exhaustive. Other factors or types of efforts may be relevant in appropriate cases:
 - (1) Soliciting through all reasonable and available means (e.g. attendance at pre-bid meetings, advertising and/or written notices) the interest of all certified DBEs who have the capability to perform the Contract. The bidder must solicit this interest within sufficient time to allow the DBEs to respond to the solicitation. The offeror must determine with certainty if the DBEs are interested by taking appropriate steps to follow up initial solicitations.
 - (2) Selecting portions of the work to be performed by DBEs in order to increase the likelihood that the DBE goal will be achieved. This includes, where appropriate, breaking out Contract work items into economically feasible units to facilitate DBE participation, even when the prime contractor might otherwise prefer to perform these work items with its own forces.
 - (3) Providing interested DBEs with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation.

- (4) Negotiating in good faith with interested DBEs. It is the offeror's responsibility to make a portion of the work available to DBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of DBEs that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional agreements could not be reached for DBEs to perform the work. "DBE Unavailability Certifications" (Attachment B-3) shall be completed as appropriate.
- (5) An offeror using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as the Contract goal into consideration. However, the fact that there may be some additional costs involved in finding and using DBEs is not in itself sufficient reason for a bidder's failure to meet the contract DBE goal, as long as such costs are reasonable. Also, the ability or desire of a prime contractor to perform the Contract with its own organization does not relieve the offeror of the responsibility to make good faith efforts. Prime contractors are not, however, required to accept higher quotes from DBEs, if the price difference is excessive or unreasonable.
- (6) Not rejecting DBEs as being unqualified without sound reasons based on a thorough investigation of their capabilities. The contractor's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union employee status) are not legitimate causes for the rejection or non-solicitation of bids in the Contractor's efforts to meet the project goal.
- (7) Making efforts to assist interested DBEs in obtaining bonding, lines of credit, or insurance as required by the recipient or contractor.
- (8) Making efforts to assist interested DBEs in obtaining necessary equipment, supplies, materials, or related assistance or services.
- (9) Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, state, and Federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBEs.

7. BID REQUIREMENTS (APPARENT LOW BIDDER):

The bidder shall submit the following items within ten (10) calendar days after notification that they are the apparent low bidder:

- A. A copy of a current WMATA, D.C. DOT or MWUCP certification letter(s) shall be attached to the DBE Schedule of Participation to evidence DBE pre-certification.
- B. DBE Manufacturer's Affidavit, if applicable, must be submitted in order to receive one hundred percent (100%) of the allowable credit for expenditures to DBE manufacturers/suppliers (Attachment B-4). By submission of this affidavit, the bidder certifies this it is satisfied that the manufacturer meets the requirements of 49 CFR Part 26.
- C. Schedule B Information for Determining Joint Venture Eligibility, if applicable (Attachment B-5, pgs. 1-4). Submittal shall be signed by all parties, dated and notarized.
- D. Copy of Joint Venture Agreement, if applicable. Submittal shall be signed by all parties, dated and notarized.
- E. Certification letter of the DBE regular dealer/supplier, if applicable. If the bidder wants to receive the maximum allowable credit for its expenditures for material(s) or supplies required under this Contract, from DBE regular dealers/suppliers, the DBE must submit a signed and notarized statement on their letterhead, stating that it is a regular dealer of the material(s) or supplies. By submission of this statement, the bidder certifies that it is satisfied that the subcontractor is a regular dealer/supplier that meets the requirements of 49 CFR Part 26.
- F. For design-build contracts, if a DBE goal is specified in the DBE GOAL/ REQUIREMENTS, the bidder shall submit, with its initial bid, a list of DBE-certified firms that it intends to enter into subcontract agreements with for this Contract. If no goal is specified in the solicitation and the bidder still intends to utilize DBEs in the performance of this Contract, the offeror shall submit with its initial bid a list of those DBE-certified firms. The documentation requirements of the solicitation shall be completed and submitted at the time of bid opening for any Contract in which a DBE goal is applicable or for any Contract in which there was no goal established, but the offeror identified DBE-certified firms that it intended to enter into subcontract agreements with in its initial bid. Any bidder who fails to complete and return the following information, if applicable, with its bid may be deemed to be not responsible and may be ineligible for Contract award. Offerors that fail to meet the DBE goal, if any, specified in the solicitation and fail to demonstrate a good faith effort and/or to justify waiver of the DBE goal, may be deemed to be not responsible and may be ineligible for contract award.

8. CONTRACT ADMINISTRATION REQUIREMENTS:

The following requirements apply after Contract award:

A. The Contractor shall include the following provision in each subcontract it awards in support of the DBE goal:

"The Contractor shall not discriminate on the basis of race, color, national origin or sex in the performance of this contract. The Contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of US DOT assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, that may result in termination of this Contract or such other remedy as the Authority deems appropriate."

- B. (1) The Contractor shall monitor the performance of, collect and report data on DBE participation to the WMATA's DBE Office on the attached "Prompt Payment Report-Prime Contractor's Report" (Attachment B-6) which shall be submitted monthly with each payment request. Failure to submit these reports may result in suspension of Contract payments. The Contractor shall certify with each payment request that payment has been or will be made to all subcontractors due payment, within ten (10) days after receipt of payment from the Authority for work by that subcontractor. The Contractor shall inform the COR or COTR, with its payment request, of any situation where scheduled subcontractor payments have not been made and the reason therefore.
 - (2) The Contractor shall require each subcontractor to complete and forward to the DBE Liaison Officer on a monthly basis a "Prompt Payment Report-Subcontractor's Report" (Attachment B-7). The subcontractor shall certify that payment has been received.
- C. The Contractor shall have a continuing obligation to maintain a schedule for participation by DBE contractor(s) to meet its goal set forth above in this Appendix. The Contractor shall not have work performed nor the materials or supplies furnished by any individual or firm other than those named in the "Schedule of DBE Participation." If at any time, the Contractor believes or has reason to believe that it needs to obtain a substitute for a DBE contractor named in the "Schedule of DBE Participation", the Contractor shall, within ten (10) days, notify the Contracting Officer and the DBE office of that fact in writing. Situations which may warrant substitution for a DBE firm include, but are not limited to the following:
 - (1) Evidence of change in ownership or circumstances regarding the firm's status as a DBE.
 - (2) Death or physical disability, if the named subcontractor or DBE partner of the joint venture is an individual.
 - (3) Dissolution, if a corporation or partnership.

- (4) Bankruptcy of the subcontractor, subject to applicable bankruptcy law, and only instances where the bankruptcy affects the Contractor's ability to perform.
- (5) Inability to furnish a reasonable performance or payment bond, if required.
- (6) Inability to obtain, or loss of, a license necessary for the performance of the particular category of work.
- (7) Failure or inability to comply with a requirement of law applicable to contractors and subcontractors on a construction, alteration or repair project.
- (8) Failure or refusal to execute the subcontract in accordance with the terms of an offer submitted to the Contractor prior to the Contractor's submission of its offer, but only where the Contracting Officer or other delegated Authority representative can ascertain with reasonable certainty the terms of such offer. In the absence of any other factors, such a failure or refusal will be considered an unusual situation only if the offeror obtained, prior to bidding/proposing, an enforcement commitment from the subcontractor involved.
- (9) Failure to comply with the terms and conditions of this Contract or those of its subcontract or joint venture agreement.

Within thirty (30) days thereafter, the Contractor shall, if necessary to achieve the Appendix B goal, make every reasonable effort to subcontract the same or other work equivalent in value to other certified DBE firms. The Contractor must have the prior, written approval of the Contracting Officer and the DBE Office before substitution of a DBE subcontractor, regardless of the reason for substitution. Failure to obtain the Authority's approval could result in the Contractor's suspension or debarment.

D. The Contractor shall forward copies of all subcontracts to the DBE Office at the time of their execution.

- E. If the Contracting Officer or other delegated Authority representative determines that the Contractor has failed to comply with this Appendix B, he/she will notify the Contractor of such noncompliance and the action to be taken. The Contractor shall, after receipt of such notice, take corrective action. If the Contractor fails or refuses to comply promptly, the Contracting Officer or other delegated Authority representative may issue a "stop work order" stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to any such stop work order shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor. When the Authority proceeds with such formal actions, it has the burden of proving that the Contractor has not met the requirements of this Appendix. The Contractor's failure to meet its Appendix B goal shall shift the burden to it to show that it has met the good faith requirements of this Appendix. After exhausting all of its administrative and legal remedies, if the Contractor is found to have failed to exert a "good faith effort" to involve DBEs in the work, the Authority may suspend or debar the Contractor.
- F. The Contractor agrees to cooperate in any studies or surveys as may be conducted by the Authority which are necessary to determine the extent of the Contractor's compliance with this Appendix.
- G. The Contractor shall keep records and documents for two (2) years following performance of this Contract to indicate compliance with this Appendix. These records and documents, or copies thereof, shall be made available at reasonable times and places for inspection by any authorized representative of the Authority and will be submitted upon request, together with any other compliance information that such representative may require.
- H. If the Authority, FTA or the US DOT has reason to believe that any person or firm has willfully and knowingly provided incorrect information or made false statements regarding the DBE Program, the matter shall be referred to the WMATA's DBE office, and WMATA's Office of Inspector General (OIG).
- I. Failure by the Contractor to carry out the requirements of this Appendix is a material breach of this Contract, that may result in the termination of this Contract or such other remedy as the Authority deems appropriate.

SUMMARY OF SUBMITTALS

With the Bid:

- 1. Completed "Schedule of DBE Participation" (Attachment B-1) with current certification letters attached for each listed DBE.
- 2. Executed "Letters of Intent to Perform as a Subcontractor/Joint Venture" (Attachment B-2).
- 3. Justification for grant of relief (waiver of DBE goal), if applicable. Include completed "DBE Unavailability Certifications" (Attachment B-3) as appropriate.

Bid Requirements (Apparent Low Bidder)

- 1. All DBEs must submit copies of their current WMATA or D.C. DOT certification letters or a certification letter issued by the MWUCP.
- 2. A DBE Manufacturer's Affidavit, if applicable, must be submitted in order to receive one hundred percent (100%) of the allowable credit for expenditures to DBE manufacturers/suppliers (Attachment B-4).
- 3. Schedule B Information for Determining Joint Venture Eligibility, if applicable (Attachment B-5, pgs. 1, 2, 3, 4).
- 4. Copy of Joint Venture Agreement, if applicable.
- 5. Certification letter of the DBE regular dealer/supplier, if applicable.

After Contract Award

1. "Prompt Payment Report-Prime Contractor's Report" Attachment B-6) – submitted monthly.

- 2. "Prompt Payment Report-Subcontractor's Report" (Attachment B-7) submitted monthly.
- 3. Request to substitute DBE contractor (see paragraph 8.C.) submitted as required.
- 4. Copies of subcontracts-submitted at the time of their execution.

<u>SUBMIT WITH BID</u> SCHEDULE OF DBE PARTICIPATION

Contract No. _____

Project Name _____

Name of Bidder

The bidder shall complete this Schedule by identifying only those DBE firms, (with scope of work and price) who have agreed to perform work on this Contract. The prices shall be at an amount that is at least the DBE percentage goal for the total Contract. The offeror agrees to enter into a formal agreement with the DBE firm(s) listed for the work, at an amount equal to, or greater than, the prices listed in this Schedule, subject to award of a Contract with the Authority. If the total amount is less than the DBE percentage goal, a justification for waiver of DBE goal shall be attached to this Schedule.

Name of DBE Subcontractor	Address	Type of Work (Electrical, Paving, Etc.) and Contract Items or Parts Thereof to be Performed and Work Hours Involved	Agreed Price
	0		
	Su	btotal \$ DBE Subcontractors	
Name of DBE Prime Contractor	Address	Type of Work (Electrical, Paving, Etc.) and Contract Items or Parts Thereof to be Performed and Work Hours Involved	Agreed Price
	Subt	otal \$ DBE Prime Contractor	
TOTAL \$ ALL	DBE CONTRACTORS	TOTAL	

Signature of Contractor' Representative

_____ Title

Date

М

23.26a (Rev 02/12)

Contract Number:	

Project Name: _____

LETTER OF INTENT TO PERFORM AS A SUBCONTRACTOR/JOINT VENTURE (ALL ITEMS <u>MUST</u> BE COMPLETED)

TO:		
(Name of C	Offeror)	
The undersigned intends	to perform work in connection with the	e above projects as (check one):
	An individualA partnership	A corporation A joint venture
Specify in detail particular	work items or parts thereof to be per	formed:
at the following price: \$		
non-DBE contractors, if a	% of the dollar value of the sub pplicable. The undersigned will enter our execution of a contract with the A	into a formal agreement with you
Name of DBE Subcontrac	ctor/Joint Venture Pho	one Number
Address	WN	/ATA Vendor ID #/DBE Cert. #
Signature & Title		Date
	npleted by the Prime Contractor. A contractor indicate acceptance.	
То:		
(Nar	ne of DBE)	
You have projected your completion of such work a	interest and intent for such work, a as follows:	nd the undersigned is projecting
WORK	PROJECTED DBE COMMENCEMENT	PROJECTED DBE COMPLETION

DATE

(Date)

ITEMS

(Name of Prime Contractor & Acceptance Signature)

DATE

<u>SUBMIT WITH BID</u>

DBE UNAVAILABILITY CERTIFICATION

(Name)	(Title)	_, of
(Date)		contractor(s) to obtain offer(s) for work
DBE Contractor	Work Items Sought	Form of Bid Souaht (i.e., Unit
		tractors were unavailable (exclusive is project, or unable to prepare a bid,
	Signature:	
	Signature: Date:	
(Name of DBE Contra	Date: was offered an ctor)	opportunity to submit a bid on the abo
	Date: was offered an ctor)	opportunity to submit a bid on the abo (Source)
(Name of DBE Contra- identified work on . (Date) The above statement is true and a	Date: was offered an ctor) by	opportunity to submit a bid on the abo (Source)
identified work on(Date)	Date: was offered an ctor) by	opportunity to submit a bid on the abo (Source)

DBE Certification Instructions

Important Notice

If you do not have a current, official letter of certification from WMATA, D.C. DOT or MWUCP, you are not pre-certified and are therefore not eligible to participate as a Disadvantaged Business Enterprise on the bid.

For those who wish to access the MWUCP certification application, it may be found on the internet at the following address:

<u>https://www.wmata.com/business/disadvantaged_business_enterprise</u>. Go to "Procurement and Contracting", click on "Disadvantaged Business Enterprise", then click on "DBE Application for Certification".

49 CFR Part 26 gives Metropolitan Washington Unified Certification Program (MWUCP) ninety (90) days in which to process a complete DBE application. In order to become certified and participate in the MWUCP, you must comply with the procedures that follow. Certification must be final before the due date for bids or offers on a contract on which a firm seeks to participate as a DBE.

Instructions

49 C.F.R. § 26.81(d) of the Certification Procedures requires a firm to be certified as a DBE in its "home state," where its principal place of business is located, in order to become certified outside such "home state". Therefore, you must attach to the MWUCP application, a copy of a valid DBE Certification letter from your home state's Department of Transportation. In addition, submit the pertinent documents for your company listed below. The application should be completed in full and NOTARIZED.

General (All firms must submit these documents.)

Current (unaudited) Financial Statements; Prior three (3) years Federal Tax Returns; Resume of Principal(s) and Key Personnel; Third Party Agreements, such as Rental and Management Agreements; Licenses to Do Business; Personal Net Worth (PNW) Statement; Statement of Disadvantage; No Change Affidavit or Notice of Change (where applicable).

Corporations

Articles of Incorporation; By-Laws; Copies of any Stock Options; Copies of Stock Certifications of Each Holder; Copies of Stockholders' Voting Rights; Record of First Organizational Meeting.

Partnerships

Partnership Agreement

Proprietorships

IRS Employer ID Number WMATA Vendor ID#

Limited Liability Companies

Operating Agreement with any amendments; Certificate of Formation, U.S. Income Tax Returns.

Change of Status Review

On or before each certification anniversary date, you must submit a <u>No Change Statement</u> attesting that there have been no changes in the firm's circumstances affecting its ability to meet the eligibility requirements of 49 CFR Part 26 or WMATA's DBE Program Plan. Firms with changed circumstances must submit a <u>Notice Regarding Change</u> for review by the DBE Office. A review of these changes shall be made to determine if the firm is in compliance with the 49 CFR Part 26.

Affidavit Enclosure

NOTE: When completing MWUCP Application, complete all information blocks. Type "N/A" if item does not apply to you or your firm.

DBE MANUFACTURER'S AFFIDAVIT

I hereby declare and affirm that I am	(Title)
and duly authorized representative of	(Name of Company),
a	owned and controlled enterprise
whose address is	

I further declare and affirm that company employees (persons not on the payroll of and/or performing the same tasks for disadvantaged owned business having any interest in the affiant's business) operate the following company equipment relative to the manufacturing process:

Equipment					
Туре	Function	Model	Age	Make	

Number of employees involved in the manufacturing process: ____

The undersigned swears that the foregoing statements are true and correct and fully understands that WMATA may rely on these statements in determining whether a WMATA prime contractor purchasing goods from the undersigned's manufacturing concern is entitled to a 100% credit of such purchases towards its DBE goal. The undersigned further understands that any material misrepresentation will be grounds for initiating action under Federal or state laws concerning false statements.

Signature of Affiant			Printed Name	
Date:	State:		County:	
On this	day of			, 19
before me appeared				
		(Nam	e)	
, ,	wn, who, being duly s authorized by	worn, did execu	ite the foregoing Affiday	vit, and did state that he
			(Name of Firm)	
to execute the Affida	vit and did so as his or	her free act and		
(Seal)	Sworn a	and subscribed be	efore me	
				(Notary Public)
	Commis	sion Expires:		
				23.29 (10/99)

	Page 1
Name and address of Joint Venture:	
Contact Person:	Telephone:
Have you attached a copy of the Joint Venture agree	eement? []Yes []No
NOTE: Affidavit will not be processed without a co	py of the Joint Venture agreement.
Name and address of Joint Venture partner:	
	Telephone:
Status of firm: [] DBE. [] Non-Minority.	
Does firm have current WMATA, D.C. DOT or MWU	JCP DBE certification? [] Yes [] No
Contact Person:	Telephone:
Status of firm: [] DBE. [] Non-Minority.	
Does firm have current WMATA, D.C. DOT or MWI	JCP DBE certification? [] Yes [] No
Describe the nature of the Joint Venture's business	
Describe the role in the Joint Venture of each partn	er listed above:
Describe the experience and business qualification	s of each partner in the Joint Venture listed above:

			Pag	je 2	
		age of ownership			ture partner, indicating dollar
Na	ame of Partner	Ownership	Profit and Loss Sharing	Capital Contributions including Equipment	Other Agreements
тот	ALS:				
contro	fy by name, titl bl of and particip	e, race, sex and pation in this contr	company affiliat act:		consible for the management
1.		•	•	surety and/or bonding req	
	Name:			Race:	
	Title:			Sex: [] Ma	le [] Female
	Company affil	iation:			
2.	Management supplies:	decisions, such	as estimating,	marketing and sales, I	niring and firing, purchasing
	Name:			Race:	
	Title:			Sex: [] Ma	le [] Female
	Company affil	iation:			
3.		f field operations:			
-		•		Race:	
				Sex: [] Ma	
	Company affil	iation:			
М	23.06c (Rev 10				

Page 3

.....

The undersigned swear that the foregoing statements are correct and include all material information necessary to identify and explain the terms and operations of our following named Joint Venture:

and the intended participation by each Joint Venturer in the undertaking. Further, the undersigned covenant and agree to provide the Authority current, complete and accurate information regarding actual Joint Venture work and the payment thereof and any proposed changes in any of the Joint Venture arrangements and to permit the audit and examination of the books, records and files of the Joint Venture, or those of each Joint Venturer relevant to the Joint Venture, by authorized representatives of the Authority or the Federal funding agency. Any material misrepresentation will be grounds for terminating any contract which may be awarded and for initiating action under Federal and State laws concerning false statements.

It is recognized and acknowledged that the Authority's DBE Program shall have access to the information provided herein above for the purpose of establishing eligibility and authenticity of the minority/woman-owned status of the Joint Venture.

It is understood that trade secrets and information privileged by law, as well as commercial, financial, geological and geophysical data furnished will be protected.

(NAME OF FIRM)	(NAME OF SECOND FIRM)
(SIGNATURE OF AFFIANT)	(SIGNATURE OF AFFIANT)
(PRINT NAME)	(PRINT NAME)
(TITLE)	(TITLE)
(DATE)	(DATE)
	23.29 (10/99) M

		Page 4
		County:
On this	day of	, 19,
before me appeared		
to me personally know	n, who, being duly sworn, o	(Name) did execute the foregoing Affidavit, and did state that he
to execute the Affidavit	and did so as his or her fr	(Name of Firm) ee act and deed.
(Seal)	Sworn and subscrib	bed before me
		(Notary Public)
	Commission Expire	s:
		County:
On this	day of	, 19,
before me appeared		
to me personally know) n, who, being duly sworn, o	(Name) did execute the foregoing Affidavit, and did state that he
		(Name of Firm)
to execute the Affidavit	and did so as his or her fr	ee act and deed.
(Seal)	Sworn and subscrib	bed before me (Notary Public)
		(Notary Fublic)
	Commission Expire	S:
	(2.2.)	
M 23.06c (Rev 10)	/99)	

WASHINGTO	ON METROPOLITAN AREA TRANSIT AUTHORITY	
Contract No.: FQ18050	SUPPLY AND SERVICE CONTRACT (IDIQ)	Dec. 22, 2017

Washington Metropolitan Area Transit Authority

DISADVANTAGED BUSINESS ENTERPRISE (DBE) MONTHLY PROMPT PAYMENT REPORT

PRIME – CONTRACTOR'S REPORT

This report is required to be submitted to the Office of Procurement, DBE Branch 600 5th Street, NW, Suite 3C, Washington, DC 20001, pursuant to the requirements of WMATA's DBE Program Plan and §26.29 of 49 CFR Part 26.

Contract No.:	Reporting Period:			
Name of Prime Contractor:		DBE – Yes	or	No
Prime Contract Amount: DBE Goal	Total Received this Reporting Period:		Total	Received to Date:

Name of Sub- Contractor	DBE (Y/N)	Description of Work	Date of Contract Awarded	Amount of Sub- Contractor Award	Amount Paid This Reporting Period	Cumulative Paid To Sub- Contractor	% of Physical Work Complete
L	1		TOTAL				

I certify the information furnished with respect to DBE subcontractor performance correct to the best of my knowledge and represents a current status of the prime contractor with the DBE subcontractors for the designated period covered by this report. Further, those subcontractors, due payment pursuant to the terms of their subcontracts will be paid within ten days after receipt of payment from WMATA.

By: _____

Date:

Washington Metropolitan Area Transit Authority

DISADVANTAGED BUSINESS ENTERPRISE (DBE) MONTHLY PROMPT PAYMENT REPORT

SUBCONTRACTOR'S REPORT

This report is required to be submitted to WMATA's DBE Office, 600 5th Street, NW, Suite 3C, Washington, DC 20001, pursuant to the requirements of WMATA's DBE Program Plan and 49 C.F.R. §26.29.

Contract No.:	Reporting Period:	
Name of Subcontractor:	DBE – Yes	s or No
Subcontractor Contract Amount:	Total Received this Reporting Period:	Total Received to Date:

Name of Sub- Contractor	DBE (Y/N)	Description of Work	Date of Contract Awarded	Amount of Sub- Contractor Award	Amount Paid This Reporting Period	Cumulative Paid To Sub- Contractor	% of Physical Work Complete
			TOTAL				

I certify the information furnished with respect to DBE subcontractor performance correct to the best of my knowledge and represents a current status for the designated period covered by this report. Further, those contractors, due payment pursuant to the terms of their subcontracts will be paid within ten days after receipt of payment from the Contractor.

Title:	Date:
--------	-------

By: _____

WASHINGTO	N METROPOLITAN AREA TRANSIT AUTHORITY	
Contract No.: FQ18050	SUPPLY AND SERVICE CONTRACT (IDIQ)	Dec. 22, 2017

APPENDIX B-1

ATTACHMENT A

NOTICE OF REQUIREMENTS FOR SMALL BUSINESS ENTERPRISE (SBE) PROGRAM

May 2015

~Applies only if proposal price is \$500,000 or less.

SMALL BUSINESS ENTERPRISE PROGRAM (SBE)

SMALL BUSINESS ENTERPRISE PROGRAM (SBE)

SMALL BUSINESS PROGRAM POLICY

It is the policy of the Authority (WMATA), the Federal Transit Administration (FTA), and US Department of Transportation (USDOT) to foster small business participation in federally funded contracts. In order to facilitate competition and maximize participation by small businesses, the Authority will assign small business participation within the established threshold on a contract-by-contract basis on USDOT assisted construction and on non-construction procurements [i.e., contracts for services, supplies and equipment have a total value not to exceed five hundred thousand dollars (\$500,000.00).] The threshold may be satisfied by utilizing one (1) or more small business performs a minimum of fifty-one percent (51%) of the tasks pursuant to the awarded contract. The Contractor hereby agrees to carry out this policy in the award and administration of subcontracts to the fullest extent possible consistent with efficient Contract performance. Refer to Appendix B-1 for more detail on the SBE Program.

QUALIFICATIONS

- (a) A firm that is currently WMATA DBE certified under the Metropolitan Washington Unified Certification Program will automatically be certified as SBE. All other firms that meet the eligibility requirements must apply to the Authority's SBE Coordinator in the WMATA's DBE Program Office (DBEPO) for SBE status. All SBE certified firms will appear in the online WMATA SBE Directory.
- (b) A firm must be a small business as defined by the U.S. Small Business Administration (SBA) by applying current SBA business size standards found in 13 C.F.R. Part 121 that are applicable to the type of work the firm seeks to perform in USDOT-assisted contracts.
- (c) The firm's average gross receipts cannot exceed the overall USDOT size standard for a small business set forth in 49 C.F.R. § 26.65. [\$23.98 million averaged over the three (3) previous fiscal years or part of year which the business has been in existence].
- (d) At least fifty one percent (51%) of the firm's ownership must be held by individuals who meet the personal net worth (PNW) cap of \$1.32 million as prescribed by 49 C.F.R. § 26.67.
- (e) A firm must be organized for profit in order to be eligible for SBE certification.
- (f) The fifty one percent (51%) owner must be a U.S. Citizen or Permanent Resident.
- (g) Each firm must be qualified as a SBE before the solicitation process. Proposals and bids will not be accepted from non-SBE qualified firms.

CERTIFICATIONS

- (a) Each certified SBE firm that is a Non-DBE firm must annually submit an affidavit to WMATA's DBE Office affirming its continued eligibility to participate in the SBE program. SBE/DBE firms do not have to submit an affidavit annually as long as they stay in DBE compliance.
- (b) A firm seeking SBE certification and/or annual renewal must cooperate fully with WMATA DBE Office's requests for information relevant to the certification and annual renewal process. Failure or refusal to provide such information may result in the denial or removal of certification.

The SBE firm is responsible for listing the North American Industry Classification System (NAICS) Code(s) that is/are the primary activities of the business and ensuring the NAICS Code(s) have been approved by WMATA's SBE Coordinator.

Each SBE firm shall complete and adhere to all requirements in Appendix B-1.

~ APPENDIX B-1

SMALL BUSINESS ENTERPRISE (SBE) PROGRAM

1. SMALL BUSINESS ENTERPRISE (SBE) REQUIREMENT:

The SBE requirements of the Authority's DBE Program Plan apply to this contract. Accordingly, the Contractor shall carry out the requirements of the Authority's DBE Program Plan and this Appendix in the performance of this U.S. Department of Transportation (US DOT) assisted contract.

2. POLICY:

It is the policy of the Authority (WMATA), the Federal Transit Administration (FTA), and U.S.DOT to foster small business participation in federally funded contracts. In order to facilitate competition and maximize participation by small businesses, WMATA will assign small business participation within the established threshold on a contract-by-contract basis on USDOT assisted construction contracts and on non-construction procurements (i.e., contracts for services, supplies and equipment having a total value not to exceed \$500,000). The threshold may be satisfied by utilizing one (1) or more small business concerns as primes or subcontractors or suppliers of goods and services provided that the small business performs a minimum of fifty one percent (51%) of the tasks pursuant to the awarded Contract. The Contractor hereby agrees to carry out this policy in the award and administration of subcontracts to the fullest extent possible consistent with efficient Contract performance.

3. **DEFINITIONS**:

- A. **Appendix B-1.** The Notice of Requirements for Small Business Enterprise Program, when attached to a solicitation, implements the SBE requirements of the Authority's DBE Program Plan in the award and administration of federally funded Authority contracts.
- B. Certified SBE. Is a for-profit small business concern (a) that is at least fifty one percent (51%) owned by one or more individuals who are economically disadvantaged or, in the case of a corporation, in which fifty one percent (51%) of the stock is owned by one (1) or more such individuals; (b) whose management and daily business operations are controlled by one (1) or more of the economically disadvantaged individuals who own it; and (c) whose eligibility is evidenced by a current MWUCP (WMATA or D.C. Department of Transportation Certification letter), or an SBE certification letter issued by WMATA's DBE Office.
- C. **Contractor.** One who participates, through a contract or subcontract (at any tier), in a US DOT assisted highway, transit or airport program.

- D. **Commercially Useful Function (CUF).** An SBE performs a commercially useful function when it is responsible for execution of the work of the contract and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. To perform a commercially useful function, the SBE must also be responsible, with respect to materials and supplies used on the contract, for negotiating price, determining quality and quantity, ordering the material, and installing (where applicable) and paying for the material itself. To determine whether an SBE is performing a commercially useful function, the Authority will consider the amount of work subcontracted, industry practices, whether the amount the firm is to be paid under the contract is commensurate with the work it is actually performing.
 - (1) An SBE does not perform a commercially useful function if its role is limited to that of an extra participant in a transaction, contract, or project through which funds are passed in order to obtain the appearance of SBE participation.
 - (2) If an SBE does not perform or exercise responsibility for at least fifty one percent (51%) of the total cost of its contract with its own work force, or if the SBE subcontracts a greater portion of the work of a contract than would be expected on the basis of normal industry practice for the type of work, the Authority will presume that the SBE is not performing a commercially useful function.
- E. The following factors will be used by the Authority in determining whether an SBE trucking company is performing a commercial useful function:
 - (1) The SBE must be responsible for the management and supervision of the entire trucking operation for which it is responsible for on a particular contract.
 - (2) The SBE must itself own and operate at least one fully licensed, insured and operational truck used on the contract.
 - (3) The SBE may lease trucks from another SBE firm, including an owner-operator who is certified as an SBE.
 - (4) The SBE may also lease trucks from a non-SBE firm, including an owner-operator. The SBE who leases trucks from a non-SBE is entitled to credit only for the fee or commission it receives as a result of the lease arrangement.
 - (5) The lease must indicate that the SBE has exclusive use of and control over the truck. This does not preclude the leased truck from working for others during the terms of the lease with the consent of the SBE, so long as the lease gives the SBE absolute priority for use of the leased truck. Leased trucks must display the name and identification number of the SBE.
- F. **DC DOT.** The District of Columbia Department of Transportation.
- G. **Economically Disadvantaged Individual.** Any individual who is a citizen (or other lawfully admitted permanent resident) of the United States and, in general, whose net worth is less than \$1.32 million (excluding equity in personal residence and applicant's firm).

- H. **Joint Venture.** An association of an SBE firm and one (1) or more other firms to carry out a single, for-profit business enterprise, for which the parties combine their property, capital, efforts, skills and knowledge, and in which the SBE is responsible for a distinct, clearly defined portion of the work of the Contract and shares in the capital contribution, control, management, risks, and profits of the joint venture commensurate with its ownership interest.
- I. **Metropolitan Washington Unified Certification Program (MWUCP).** A unified certification program mandated by 49 CFR §26.81 between two Federal transit recipients (WMATA and the D.C. Department of Transportation). The agreement became effective January 2005.
- J. **Race-conscious.** A measure or program that is focused specifically on assisting only DBEs, including women-owned DBEs.
- K. **Race-neutral.** A measure or program that is, or can be, used to assist all small businesses. For the purposes of the SBE and DBE programs, race-neutral includes gender-neutrality.
- L. **Small Business Concern.** With respect to firms seeking to participate as SBEs in US DOT assisted contracts, a small business concern as defined pursuant to Section 3 of the Small Business Act and Small Business Administration's implementing regulations (13 C.F.R. Part 121) that also does not exceed the cap on average annual gross receipts specified in 49 C.F.R. § 26.65(b).
- M. **US DOT Assisted Contract.** Any contract between the Authority and a contractor (at any tier) funded, in whole or in part, with US DOT financial assistance, including letters of credit or loan guarantees.
- N. **WMATA.** Washington Metropolitan Area Transit Authority, the transit system (rail and bus) serving the metropolitan Washington area, including parts of Virginia and Maryland.

4. SOLICITATION REQUIREMENTS:

The bidder shall submit the following <u>with</u> its bid or proposal, no later than the time of the bid or proposal due date. Any bidder who fails to complete and return this information with its bid shall be deemed to be not responsive and may be ineligible for contract award. Bidders that are not SBE certified shall be deemed to be not responsible and will be ineligible for Contract award.

- a. A copy of a current WMATA, D.C. DOT or MWUCP certification letter(s) or SBE certification letter shall be attached to evidence SBE pre-certification. All SBE firms must be pre-certified. Participation by a firm that is not currently certified as an SBE by the Authority at the time of bid opening does not count. All SBE firms must be in compliance with 49 CFR, Part 26.
- b. Information for Determining Joint Venture Eligibility, if applicable (Attachment 1, pgs. 1-4). Submittal shall be signed by all parties, dated and notarized.
- C. Copy of Joint Venture Agreement, <u>if applicable.</u> Submittal shall be signed by all parties, dated and notarized.
- D. Completed "Schedule of Participation for SBE Contracts" (Attachment 2) identifying the

area of work and percentage of contract performance for SBE prime contractor and all subcontractors. The SBE must perform, at least fifty one percent (51%) of the total Contract value, to meet the SBE contract performance requirement.

E. Executed "Letter of Intent to Perform as Subcontractor on SBE Contract" (Attachment 3) must be submitted for all subcontractors.

5. CONTRACT ADMINISTRATION REQUIREMENTS:

The following requirements apply after contract award:

a. The Contractor shall include the following provision in each subcontract it awards:

"The contractor shall not discriminate on the basis of race, color, national origin or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of U.S. DOT assisted contracts. The Contractor's failure to carry out these requirements is a material breach of this Contract, which may result in termination of this contract or such other remedy as the Authority deems appropriate."

- b. The Contractor shall report on SBE performance on the attached, SBE Prime Contractor Prompt Payment Report (Attachment 4) which shall be submitted monthly with each payment request. Failure to submit these report(s) may result in suspension of contract payments. The Contractor shall certify, with each payment request, that payment has been or will be made to all subcontractors due payment, within ten (10) days after receipt of payment from the Authority for work by that subcontractor. The Contractor shall inform the COR or COTR, with its payment request, of any situation where scheduled subcontractor payments have not been made and the reason therefore. The Contractor shall require each subcontractor to complete and forward to the Small Business Coordinator on a monthly basis a "SBE Subcontractor Prompt Payment Report" (Attachment 5). The subcontractor shall certify that payment has been received.
- c. The Contractor must have the prior written approval of the contracting officer and the SBE office before substitution for an SBE subcontractor, regardless of the reason for substitution. Failure to obtain Authority approval could result in the Authority declaring the Contractor ineligible to receive further Authority contracts for three years from the date of the finding.
- d. The contractor shall forward copies of all subcontracts to the Small Business Coordinator at the time of their execution.
- e. If the Contracting Officer or other delegated Authority representative determines that the Contractor has failed to comply with this Appendix B-1, he/she will notify the Contractor of such noncompliance and the action to be taken. The Contractor shall, after receipt of such notice, take corrective action. If the Contractor fails or refuses to promptly comply, the Contracting Officer or other delegated Authority representative may issue a "stop work order" stopping all or part of the work, until satisfactory corrective action has been taken. No part of the time lost due to any such stop work order shall be made the subject of a claim for extension of time or for excess costs or damages by the Contractor. When the Authority proceeds with such formal actions, it has the burden of proving that the Contractor has not met the requirements of this Appendix, but the Contractor's failure to meet its Appendix B-1 goal shall shift to it, the requirement to come forward with evidence to show that it has met the good faith requirements of this Appendix.

- f. The Contractor agrees to cooperate in any studies or surveys that the Authority conducts which are necessary to determine the extent of the Contractor's compliance with this Appendix.
- g. The Contractor shall keep records and documents for three (3) years following performance of this Contract to indicate compliance with this Appendix. These records and documents, or copies thereof, shall be made available at reasonable times and places for inspection by any authorized representative of the Authority and will be submitted upon request together with any other compliance information that such representative may require.
- h. If the Authority, the FTA or the U.S. DOT has reason to believe that any person or firm has willfully and knowingly provided incorrect information or made false statements regarding the SBE Program, the matter shall be referred to the WMATA's DBE Office, and WMATA's Office of Inspector General (OIG).
- i. The Contractor's failure to carry out the requirements of this Appendix is a material breach of this Contract, that may result in the termination of this Contract or such other remedy as the Authority deems appropriate.

Pa	age 1
Name and address of Joint Venture:	
Contact Person:	Telephone:
Have you attached a copy of the Joint Venture agreen	
NOTE: Affidavit will not be processed without a copy	
Name and address of Joint Venture partner:	
Contact Person:	Telephone:
Status of firm: [] DBE [] Non-Minority [] Female	[] Veteran.
Does firm have current WMATA, DC DOT or MWUCP	DBE certification? [] Yes [] No
Name and address of Joint Venture partner:	
Contact Person:	Telephone:
Status of firm: [] DBE. [] Non-Minority [] Female	[] Veteran.
Does firm have current WMATA, DC DOT or MWUCP	DBE certification? [] Yes [] No
Describe the nature of the Joint Venture business:	
Describe the role in the Joint Venture of each partner	listed above:
	• • • • • • • • • • • • • • • •

Describe the experience and business qualifications of each partner in the Joint Venture listed above:

Page 2

Indicate the percentage of ownership in the Joint Venture for each Joint Venture partner, indicating dollar amounts wherever applicable.

Name	of Partner	Percentage of Ownership	Profit and Loss Sharing	Capital Contribu including Equip		Other	Agreements	
ΤΟΤΑ								
		title, race, sex a cipation in this co		affiliation those in	dividu	als respo	nsible for the	e management
1.	Financial d	ecisions, such as	payroll, insura	nce, surety and/o	r bond	ing requir	ements:	
	Name:			Race	:			-
	Title:				Sex:	[] Male	[] Female	
	Company a	ffiliation:						
2.	Manageme	nt decisions, suc	h as estimating	g, marketing and s	ales, l	niring and	firing, purcha	asing supplies:
	Name:			Race	:			
	Title:				Sex:	[] Male	[] Female	
	Company a	ffiliation:						
3.	Supervisior	n of field operatio	ns:					
	Name:			Race:				
	Title:				Sex:	[] Male	[] Female	
	Company a	ffiliation:						
	. , -							

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The undersigned swear that the foregoing statements are correct and include all material information necessary to identify and explain the terms and operations of our following named Joint Venture:

and the intended participation by each Joint Venturer in the undertaking. Further the undersigned covenant and agree to provide the Authority current, complete and accurate information regarding actual Joint Venture work and the payment thereof and any proposed changes in any of the Joint Venture arrangements and to permit the audit and examination of the books, records and files of the Joint Venture, or those of each Joint Venturer relevant to the Joint Venture, by authorized representatives of the Authority or the Federal funding agency. Any material misrepresentation will be grounds for terminating any contract that may be awarded and for initiating action under Federal and State laws concerning false statements.

It is recognized and acknowledged that the Authority's SBE Program shall have access to the information provided herein above for the purpose of establishing eligibility of the Joint Venture.

It is understood that trade secrets and information privileged by law, as well as commercial, financial, geological and geophysical data furnished will be protected.

(NAME OF FIRM)	(NAME OF SECOND FIRM)
(SIGNATURE OF AFFIANT)	(SIGNATURE OF AFFIANT)
(PRINT NAME)	(PRINT NAME)
(TITLE)	(TITLE)
(DATE)	(DATE)

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		Page 4		
		County:		
before me appea	ared			
to me personally	y known, who, being duly y authorized by	(Name) sworn, did execute the foreg	oing Affidavit, and did	state that he or
	ffidavit and did so as his o	(Name of Firm)		
(Seal)	Sworn and s	ubscribed before me(N	Notary Public)	
	Commission	Expires:		-
		County:		
				_
before me appea	ared	(Name)		
•	lly known, who, being duly y authorized by	v sworn, did execute the foreg	joing Affidavit, and did	state that he or
	ffidavit and did so as his o	(Name of Firm)		
(Seal)	Sworn and s	ubscribed before me	(Notary Public)	
	Commission	Expires:		_

SUBMIT WITH BID/PROPOSAL

SCHEDULE OF PARTICIPATION on SBE Contract

Contract No.

Project Name_____

Name of Bidder/Proposer

The bidder/proposer shall complete this Schedule by identifying those firms, (with scope of work and price), who have agreed to perform work on this Contract. The bidder/proposer agrees to enter into a formal agreement with the firm(s) listed for the work and at, or greater than, the prices listed in this Schedule subject to award of a Contract with the Authority.

Name of Subcontractor	Address	Agreed Price	
		Subtotal \$ Subcontractors	
Name of Prime Contractor	Address	Type of Work (Electrical, Paving, Etc.) and Contract Items or Parts Thereof to be Performed and Work Hours Involved	Agreed Price
TOTAL \$ ALL			

Signature & Title of Contractor Representative

Date

WASHINGT	ON METROPOLITAN AREA TRANSIT AUTHORITY	
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LETTER OF INTENT TO PERFORM AS A SUBCONTRACTOR/JOINT VENTURE (ALL ITEMS <u>MUST</u> BE COMPLETED)

TO: _____ (Name of Bidder/Proposer) The undersigned intends to perform work in connection with the above projects as (check one): _____ A corporation An individual _____ A partnership A joint venture Specify in detail particular work items or parts thereof to be performed: at the following price: \$ % of the dollar value of the subcontract that will be awarded to subcontractors, if applicable. The Please indicate undersigned will enter into a formal agreement with you for the above work upon your execution of a contract with the Authority. Name of SBE Firm's Subcontractor/Joint Venture Phone Number WMATA Vendor ID Address Signature & Title Date _____ The following is to be completed by the Prime Contractor. A copy of this letter must be returned to the subcontractor to indicate acceptance. To: (Name of Subcontractor) You have projected your interest and intent for such work, and the undersigned is projecting completion of such work as follows: WORK ITEMS: PROJECTED SUBCONTRACTOR COMMENCEMENT DATE: PROJECTED SUBCONTRACTOR COMPLETION DATE:

(Name of Prime Contractor & Acceptance Signature)

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITYContract No.:FQ18050SUPPLY AND SERVICE CONTRACT (IDIQ)Dec. 22, 2017

Washington Metropolitan Area Transit Authority (WMATA)

SMALL BUSINESS ENTERPRISE (SBE) PRIME CONTRACTOR'S PROMPT PAYMENT REPORT

Page	_ of	
Reporting Perio	od	
Contract Numb	er	

This Report is required to be submitted to the DBE Office, Attn: Coordinator, Small Business Programs, 8201 Ardwick Ardmore Road, Landover, MD 20785, pursuant to the requirements of WMATA's DBE Program Plan and 49 CFR Part 26.

:

Name of SBE Prime Contractor:

Prime Contract Amount:

Name of Sub-Contractor	SBE (Y/N)	Description of Work	Date Contract Awarded	Amount of Subcontractor Award	Amount Paid This Reporting Period	Cumulative Paid To Sub- Contractor

I certify the information furnished with respect to subcontractor performance is correct to the best of my knowledge and represents a current status of the SBE prime contractor with subcontractors for the designated period covered by this report. Further, those subcontractors, due payment pursuant to the terms of their subcontracts will be paid within ten (10) days after receipt of payment from WMATA.

Signature & Title of Authorized Representative: _____ Date: _____

Washington Metropolitan Area Transit Authority (WMATA)

SMALL BUSINESS ENTERPRISE (SBE) SUBCONTRACTOR'S PROMPT PAYMENT REPORT

Page	of	
Reporting F	Period	
Contract N		

This Report is required to be submitted to the DBE Office, Attn: Coordinator, Small Business Programs, 8201 Ardwick Ardmore Road, Landover, MD 20785, pursuant to the requirements of WMATA's DBE Program Plan and 49 CFR Part 26.

Subcontractor:

SBE Prime Contractor:

Subcontract Amount:

Description of Service/Product Performed	Invoice Date	Invoice Amount	Payment Received From Prime Contractor (<i>Check</i> # or EFT Confirmation #)	Cumulative Payments Received From Prime Contractor

I certify that the information furnished with respect to payment(s) by the prime contractor for the above services/products is true and accurate to the best of my knowledge and belief.

Signature & Title of Authorized Representative:	Date:

COMBINED GLOSSARY OF DEFINITIONS

As used throughout this Contract, except to the extent otherwise expressly specified, the following terms shall have the meanings set forth below:

Acceptance: Acknowledgment by the Authority that the supplies, services, or other work conform to the applicable contract requirements.

Acceptance Period: The number of days available to the Authority to award a Contract pursuant to this solicitation, during which period offerors may not withdraw their offers.

Amendment: Written instructions issued prior to the date set for bid opening to clarify, revise, add or delete requirements of the IFB.

Approved equal: An item approved by WMATA as equivalent to a brand name item originally specified.

Authority or WMATA or Metro: The Washington Metropolitan Area Transit Authority, created effective February 20, 1967, by Interstate Compact by and between Maryland, Virginia and the District of Columbia pursuant to Public Law 89-774, approved November 6, 1966.

Board of Directors: The Board of Directors of the Washington Metropolitan Area Transit Authority.

Brand name: Identification of an item that is produced or controlled by one or more entities, including trademarks, manufacturer names, or model names or numbers that are associated with a manufacturer.

Breach: An unexcused and unjustifiable failure or refusal of a party to satisfy one (1) or terms of the Contract which, if material, shall constitute a basis for potential default.

Change or **Change Order:** A written alteration issued, upon agreement of both parties or unilaterally by the Authority, to modify or amend the Contract, generally directing changes to the Scope of Work and/or Contract terms.

Claim: A written demand or assertion by the Contractor seeking, as a legal right, the payment of money, adjustment or interpretation of Contract terms, or other relief, arising under or relating to this Contract.

Clarifications: Exchanges between the Authority and one (1) or more bidders of a limited nature, whereby bidders may be given the opportunity to clarify certain aspects of their bids or to resolve minor irregularities, informalities or clerical errors.

Constructive Change: An act or omission by the Authority that, although not identified as a Change Order, does in fact cause a change to the Contract.

Contract or Agreement: The written agreement executed between the Authority and the Contractor awarded pursuant to this solicitation.

Contract Administrator: The Authority's representative designated to serve as its primary point of contact for pre-award activities relating to the solicitation as well as such post-award activities as are set forth in the Contract.

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Contracting Officer: An employee with authority duly delegated from the powers of the Chief Procurement Officer to legally bind the Authority by signing a Contractual instrument. The Contracting Officer is the Authority's primary point of contact for pre-award administration, modifications above the limits of the Contracting Officer's Representative, and final settlement.

Contracting Officer Representative: The person to whom the Contracting Officer delegates the authority and responsibility for post-award execution of the Contract. The Contracting Officer's Representative is the Authority's primary point of contact with its Contractor.

Contractor: The individual, partnership, firm, corporation, or other business entity that is contractually obligated to the Authority to furnish, through itself or others, the supplies, services and/or construction services described in the Contract, including all incidentals that are necessary to complete the work in accordance with the contract.

Contract Price: The amount payable to the Contractor under the terms and conditions of the Contract based on lump sum prices, unit prices, fixed prices, or combination thereof, with any adjustments made in accordance with the Contract.

Data: Recorded information, regardless of form or the media on which it may be recorded, including technical data and computer software.

Day: Calendar day, except where the term business day, work day or like term is used.

Designer: The individual, partnership, firm, corporation or other business entity that is either the Contractor, or employed or retained by the Contractor, to manage and perform the design services for the Contract.

Disadvantaged Business Enterprise (DBE): A for-profit small business concern that has been certified by the Authority to be at least fifty-one percent (51%) owned by one (1) or more individuals who are both socially and economically disadvantaged or, in the case of a corporation, in which fifty one percent (51%) of the stock is owned by one (1) or more individuals, and whose management and daily business operations are controlled by one (1) or more of the socially and economically disadvantaged individuals who own it.

Descriptive literature: Information provided by an offeror, such as cuts, illustrations, drawings, and brochures that shows a product's characteristics or construction of a product or explains its operation. The term includes only that information needed to evaluate the acceptability of the product and excludes other information for operating or maintaining the product.

Directed, ordered, designated, prescribed or words of like importance: Shall be understood that the direction, requirement, order, designation or prescription of the Contracting Officer is intended and similarly the words approved, acceptable, satisfactory or words of like import shall mean approved by, or acceptable to, or satisfactory to the Contracting Officer, unless otherwise expressly stated.

Electronic Signature: As described in the 2000 U.S. ESIGN Act, any "electronic sound, symbol, or process, attached to or logically associated with a contract or other record and executed or adopted by a person with the intent to sign the record."

Explanation: Additional information or clarification provided by an Authority representative to one (1) or more prospective bidders in response to an inquiry relating to the solicitation, that will be binding upon the Authority, only to the extent specified in the Contract.

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Equivalent: Of equal or better quality and/or performance to that specified in the Contract as determined by the Authority.

Final Payment: The last payment to the Contractor for work performed under the Contract.

Force Majeure: An unforeseen event or circumstance, beyond the control of, and not occasioned by the fault or neglect of, the Contractor or the Authority, that gives rise to a delay in the progress or completion of the Contract, including, without limitation, acts of God, acts of war or insurrection, unusually severe weather, fires, floods, strikes, freight embargoes or other events or circumstances of like nature.

FTA: Federal Transit Administration, an agency within the United States Department of Transportation that provides financial and technical assistance to local public transit agencies.

Government: The Government of the United States of America.

Industry Standards: Drawings, documents, and specifications or portions thereof published by industry organizations. Industry Standards are not part of this Contract unless specifically listed as such in the Scope of Work.

Legal Requirements: All Federal, state and local laws, ordinances, rules, orders, decrees, and regulatory requirements such as: building codes, mechanical codes, electrical codes, fire codes, Americans with Disabilities Act Accessibility Guidelines (ADAAG), and other regulations of any government or quasi-government entity that are applicable to this Contract.

Milestone: A specified date in the Contract by which the Contractor is required to complete a designated portion or segment of the work.

Minor Irregularity: A variation from the solicitation contained in a bid that does not affect the price or other material term of the Contract and does not confer a competitive advantage or benefit not enjoyed by other offerors or adversely impact the Authority's interests.

Notice to Proceed: Written notice issued by the Authority establishing the date on which the Contractor may commence work and directing the Contractor to proceed with all or a portion of the work.

Offeror: A party submitting a bid in response to this solicitation.

Option: A unilateral right in the Contract by which, for a specified time, the Authority may elect to purchase, at a predetermined price, additional supplies, services and/or work called for by the Contract or to extend the term of the Contract.

Organizational conflict of interest: A circumstance in which, because of other activities or relationships, a person, corporation or other business entity is unable or potentially unable to render impartial assistance or advice to the Authority, or its objectivity in performing the Contract is or might be otherwise impaired, or it has an unfair competitive advantage.

Period of Performance: The time allotted in the Contract for completion of the work. The period of performance begins upon the effective date of Contract execution and ends on the last date for complete performance of the final option. The period of performance incorporates the milestones established for the Contract.

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Pre-award Survey: An evaluation of a prospective Contractor's capability to perform a proposed Contract, including an assessment of matters relating to its responsibility.

Product Data: Information furnished by the Contractor to describe materials used for some portion of the work, such as written or printed descriptions, illustrations, standard schedules, performance charts, instructions, brochures, and diagrams.

Records: Books, documents, accounting procedures and practices, and other data, regardless of type and regardless of whether such items are in written form, in the form of computer data, or in any other form.

Safety Sensitive: FTA regulations at 49 C.F.R. § 655.4 define "safety sensitive functions" as any of the following duties when performed by WMATA as a grant recipient, or any of its contractors: (a) Operating a revenue service vehicle, including when it is not in revenue service; (b) Operating a nonrevenue service vehicle, when required to be operated by the holder of a commercial driver's license (CDL); (c) Controlling dispatch or movement of a revenue service vehicle; (d) Maintaining (including repairs, overhaul and rebuilding) a revenue service vehicle or equipment used in revenue service; and (e) Carrying a firearm for security purposes. WMATA's definition of safety sensitive functions extends beyond FTA's requirements and includes (f) Employees and contractors who maintain escalators and elevators (including repairs, overhauls and rebuilding) and (g) Station managers.

Services: The performance of work by a person or legal entity under contract with the Authority, including without limitation: maintenance; overhaul; repair; servicing; rehabilitation; salvage; modernization or modification of supplies, systems or equipment; routing, recurring maintenance of real property; housekeeping; operation of Authority-owned equipment, facilities and systems; communication services; Architect-Engineering services; professional and consulting services; and transportation and related services.

Small Business Enterprise Set-Aside: Competitive procurement(s), less than \$500,000, exclusively for SBE certified bidders/proposers.

Supplies: The end item(s) required to be furnished by the Contractor in fulfillment of its obligation under this Contract as well as any and all related services and required performance.

Statement of Work/Scope of Work (SOW): The portion of a contract or IFB that describes specifically what is to be done by the Contractor. It may include specifications, performance outcomes, dates and time of performance, quality requirements, etc.

Solicitation: This Invitation for Bids (IFB).

Shop Drawings: Fabrication, erection, layout, setting, schematic, and installation drawings that they the Contractor prepares for permanent structures, equipment, and systems it designed to comply with this Contract.

Similar: Generally the same but not necessarily identical; details shall be worked out in relation to location and relation to other parts of the work.

Site: The areas that are occupied by or used by the Contractor and subcontractors during performance of the Contract.

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Small Business Enterprise (SBE): A for profit small business concern that has been certified by the Authority to be at least fifty one percent (51%) owned by one (1) or more individuals who are economically disadvantaged.

Small Business & Local Preference Program: Board mandated small business contracting program for WMATA funded contracts with firm(s) located in the District of Columbia, Maryland or Virginia.

Subcontract: An agreement between the Contractor and another party, or between other subcontractors at any tier, to perform a portion of the Contract through the acquisition of specified supplies, materials, equipment or services.

Subcontractor: An individual, firm, partnership, or corporation that has a contractual obligation with the Contractor or other subcontractors.

Submittal: Written or graphic document or samples prepared for the work by the Contractor or a subcontractor and submitted to the Authority, including shop drawings, product data, samples, certificates, schedules of material, or other data.

Substantial Completion: Work or a portion thereof that has progressed to the point where it is sufficiently complete in accordance with the Contract (including receipt of test and inspection reports) so that it , can be utilized for the purpose for which it is intended, and only incidental work remains for physical completion in accordance with the Contract.

Substitution: An item offered by the Contractor of significant difference in material, equipment, or configuration, that functionally meets the requirements of the Contract, but is submitted in lieu of item specified therein.

Utility: A public and/or private facility or installation, other than WMATA's facility, that relates to (1) the conveyance and supply of water, sewage, gas, chemicals, steam, petroleum products, and other piped installations, or (2) electrical energy, telephone, radio, television, and cellular or wireless communications.

Utility Standards: Drawings and specifications for utilities published or issued by municipalities or utility companies.

WMATA Safety Manual: A compilation of the appropriate safety and reporting requirements for the project as specified in the Contract.

WMATA Safety and Security Certification Program Plan: A compilation of the appropriate system safety and security certification requirements for the project.

Work: All of the services of any kind, as well as any and all goods, supplies, equipment, labor, and material, of any type and nature to be furnished and/or performed pursuant to this Contract to accomplish the Contract's stated objectives in a timely and fully satisfactory manner.

ABBREVIATIONS

As used throughout this Contract, except to the extent otherwise expressly specified, the following terms shall have the meanings set forth below:

AREMA	American Railway Engineering and Maintenance of Way Association
ASTM	American Society for Testing and Materials
ATC	Automatic Train Control
AWG	American Wire Gauge
C&S Manuals	Communication and Signals Manuals
СМ	Circular Miles
dB/km	Decibels per unit length of medium
EIA/TIA	Energy Information Administration/Telecommunications Industry Association
EPCV	UL class commercial compound
EPR	Ethylene-propylene-rubber
ETFE	Ethylene Tetrafluoroethylene Copolymer
lbf/in	Pound force inch
ICEA	Insulated Cable Engineers Association
IEEE	Institute of Electrical and Electronic Engineers
ISO-9001	International Standard
ITU	International Telecommunication Union
Kcmil	Measurement of wire gauge in thousands of circular mils
lb.	Measurement in pounds
LSZH	Low Smoke, Zero Halogen
MIL	One Thousandth of an Inch
NEC	National Electrical Code
NEMA	National Electrical Manufacturer Association
NESC.C2	National Electrical Safety Code
NFPA	National Fire Protection Association
nm	Nanometers
OMFG	NAICS Industry Code for Total Manufactures
PPI	Producer Price Index
PVC	Polyvinyl Chloride
PVC-Based	Polyvinyl Chloride Based

ABBREVIATIONS – continued

тс	Tray Cable
TC-ER	Tray Cable
ТМ	Maximum Tension in Pounds
UL	Underwrites Laboratories
UL Class	Underwriter Laboratories Classification
UL-Listed	Underwriter Laboratories Listing
UPS	Unit Price Schedule and/or Unit Price Sheet
WSJ	Wall Street Journal
WZ Cable	Wheezy Cable
XLPO	Crosslinked Polyolefin
XPLE	Crosslinked Polyethylene