

CHICAGO TRANSIT AUTHORITY
Advertisement for Bids

Sealed bids will be received for the following by Chicago Transit Authority at the Bid Office - 2nd Floor, 567 W. Lake Street, Chicago, IL, 60661-1498, no later than 11:00 a.m. on Wednesday, March 14, 2012 at which time all such bids will be opened publicly and read aloud:

Req No: B11OP01539, Spec. No. CTA 6404-11
Furnish and Deliver Avery Dennison and Roland Brands
Print Shop Supplies for CTA's Skokie Facility as
required for a period of thirty-six (36) months.

PROPOSAL GUARANTEE: NONE

⇒ Req No: B11OP03602, Spec. No. CTA 497-06(R11), 668-09,
703-11, 711-05(R10), 754-11, 770-10, 792-07(R12), 2388-
11, 2963-12, 3018-06(R09), 3065-08(R12), 3771-05(R09),
3789-06(R09), 3793-06(R12), 5285-08(R12), 7144-06(R11),
7676-06(R11), 7677-06(R09), 7678-06(R11), 7679-07(R09),
9305-06(R12), 9714-08(R12).

Various Types and Sizes of Electrical Cable as required
for thirty-six (36) months.

PROPOSAL GUARANTEE: NONE

For additional information, please contact John
Reinitz, Procurement Administrator, 312/681-2472.

Any contract resulting from this advertisement will be awarded to
the lowest responsive and responsible bidder.

Chicago Transit Authority hereby notifies all bidders that it
will affirmatively ensure that in regard to any contract entered
into pursuant to this advertisement, Disadvantaged Business
Enterprise will be afforded full opportunity to submit bids in
response to this invitation and will not be discriminated against
on the grounds of race, color, or national origin in
consideration for an award.

PLEASE NOTE: Where bids are sent by mail, delivery service or
delivered in-person to the CTA Bid Office, the bidders shall be
responsible for their delivery only to the Bid Office before the
advertised date and hour for the opening of the bids. The Bid
Office hours are Monday through Friday from 8:00 a.m. to 4:30
p.m. Chicago time, except holidays.

The right is reserved to accept any bid or any part or parts
thereof or to reject any and all bids.

(2)

All inquiries should be directed to and copies of bid documents obtained from the Bid Office - 2nd Floor, 567 W. Lake Street, Chicago, Illinois 60661-1498.

CHICAGO TRANSIT AUTHORITY

By: Marina Popovic
Vice President, Purchasing
& Warehousing

February 22, 2012



PROCUREMENT SPECIFICATIONS AND CONTRACT DOCUMENTS FOR

**VARIOUS TYPES AND SIZES OF ELECTRICAL CABLE AS REQUIRED
FOR THIRTY-SIX (36) MONTHS.**

REQUISITION NO.: B11OP03602

SPECIFICATION NO.: See Attached
Listing (22 Specifications)

DRAWING NO.: None

PROJECT NO.:

INSURANCE REQUIRED: None

BID DEPOSIT AMOUNT: None

INFORMATION:

Procurement Administrator: John Reinitz

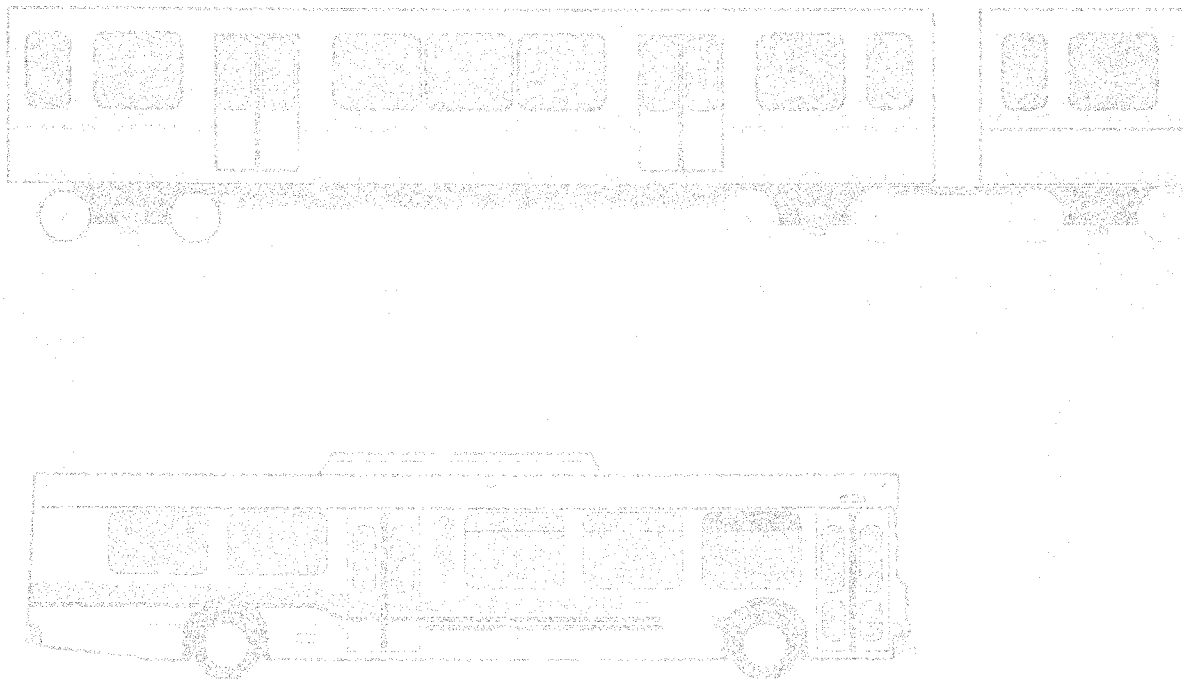
Phone Number: (312) 681-2472, E-mail: jreinitz@transitchicago.com

BID PACKAGES TO BE RETURNED TO:

By Mail, In Person Drop-off or Delivery Service

**Chicago Transit Authority
Bid Office - 2nd Floor
567 W. Lake Street
Chicago, IL 60661-1498**

All Signatures to be sworn before a Notary Public



ISSUED BY

**Purchasing Department, Chicago Transit Authority
567 W. Lake Street, Chicago IL 60661-1498
Marina Popovic, Vice President, Purchasing & Warehousing
Forrest Claypool, President
Terry Peterson, Chairman**

PROCUREMENT DETAIL SPECIFICATIONS

<u>Specification №</u>	<u>Description</u>
CTA 497-06(R11)	Vital Circuit Signal Wire and Cable
CTA 668-09	Bare Copper Cable
CTA 703-11	Portable Electric Cable-SOOW, SJOOW
CTA 711-05(R10)	Electric Welding Cable
CTA 754-11	Various Trainline Control Cables
CTA 770-10	Weather-Resistant Polyethylene Wire
CTA 792-07(R12)	Electrical Type THW Wire
CTA 2388-11	Automotive Low Voltage Cable
CTA 2963-12	Vinyl Covered Cable
CTA 3018-06(R09)	2000 VDC DEL OR DLO TYPE Copper Electric Cable
CTA 3065-08(R12)	Electrical Building Wire-THHN, THWN, THWN-2
CTA 3771-05(R09)	Multiple Conductor, Electrical Trainline Control Cable
CTA 3789-06(R09)	ETFE EFZEL® Insulated, 1000V Electric Cable
CTA 3793-06(R12)	Locomotive-Car Cable
CTA 5285-08(R12)	LAN Cable: Category 6
CTA 7144-06(R11)	Trainline Jumper Cable
CTA 7676-06(R11)	SJOOW Electric Portable Power Cable
CTA 7677-06(R09)	Rapid Transit Type, Copper, XLPO, Cable
CTA 7678-06(R11)	Control and Instrumentation Cable.
CTA 7679-07(R09)	Double Braid Kevlar Electric Cable.
CTA 9305-06(R12)	Control Cable – Twisted Shielded Pair
CTA 9714-08(R12)	Nine (9) Conductor Composite Cable

READ THIS PAGE BEFORE FILLING OUT BID PACKAGE

DOCUMENT PREPARATION for Materials & Supplies

One (1) complete bid package is included. One (1) complete copy of this bid package is to be returned in a sealed envelope with the following on the cover: Bidder's name, Address, Title of the procurement including Requisition Number, and Advertised date and hour designated for the bid opening as shown on the advertisement. Returned copy must contain original signatures. CTA recommends that you make and retain one copy for your records.

SIGNATURES REQUIRED ON THE FOLLOWING ITEMS

- **DBE PARTICIPATION SCHEDULES B, C, & D** – *Schedules C and D must be filled out and signed by all bidders/DBE subs; Schedule B must also be filled out and signed if the bidder is a joint venture.* All information relative to Disadvantaged Business Enterprise (DBE) participation for this contract is outlined in the DBE Special Conditions section entitled, "Disadvantaged Business Enterprise Commitment".
- **GOOD FAITH EFFORTS TO MEET CONTRACT DBE GOAL** – If the contract DBE goal (if any) cannot be fully met through DBE participation on this contract, the bidder must submit a signed letter on its company letterhead and supporting documentation to show that all reasonable "Good Faith Efforts" were made toward fulfilling the required DBE goal. Please refer to "SPECIAL CONDITIONS -DISADVANTAGED BUSINESS ENTERPRISE COMMITMENT" Good Faith Efforts (Section V or VI) for further details. Failure to document Good Faith Efforts to meet the contract DBE goal when the goal cannot be fully met through participation will result in a "Non-Responsive" (Disqualified) bid which will be ineligible for contract award.
- **BUY AMERICA CLAUSES** – Certificate of Compliance or Non-Compliance with Sections 165(a) and 165(b)(3). [Does not apply to Operating funded procurements, personal minicomputer purchases or purchases less than \$100,000.00.]
- **CERTIFICATION REGARDING A DRUG FREE WORKPLACE**
- **CERTIFICATION OF PARTICIPANT REGARDING DEBARMENT, SUSPENSION AND OTHER RESPONSIBILITY MATTERS.** Two forms: PRIMARY and LOWER TIER (when applicable).
- **CERTIFICATION FOR CONTRACTS, GRANTS, LOANS AND COOPERATIVE AGREEMENTS (LOBBYING CERTIFICATION)**

A NOTARIZED SIGNATURE by an authorized officer of your business must appear on one of the following Proposal Execution pages:

- **TO BE EXECUTED BY A CORPORATION**
The SIGNATURE OF AUTHORIZED OFFICER, under Corporate Name must be President or Vice President. If signed by any other person, a resolution or by-law authorizing such person to execute a contract must accompany the Proposal.
Note – Name of Signatory in Notary is same name as Signature of Authorized Officer.
- **TO BE EXECUTED BY PARTNERSHIP OR JOINT VENTURE**
Note – Name of Signatory in Notary is same name as first signature line – Partner.
- **TO BE EXECUTED BY SOLE PROPRIETOR**
Note – Name of Signatory in Notary is same name as Name of Bidder.

OWNERSHIP DISCLOSURE – This document is required, failure to address this will cause a delay in the execution of the contract.

INSURANCE (when required) – The awarded contractor must provide certified copies of insurance policies in order to allow for contract execution. CTA is to be named an additional insured. This should be taken into consideration when submitting your bid.

Note: Questions on the Detail Specification must be in writing to the Procurement Administrator listed on the front of the bid document no later than seven (7) calendar days prior to the bid due date. After that, there will not be sufficient time for the Procurement Administrator to obtain responses to questions.

Failure to sign the documents listed above may result in your firm not being awarded the contract.

CONTRACT FOR SUPPLIES REQUIREMENTS FOR BIDDING AND INSTRUCTIONS TO BIDDERS

Bids will be received by the **CHICAGO TRANSIT AUTHORITY**, a Municipal Corporation, in accordance with the Contract Documents set forth herein.

1. DEFINITIONS:

The term "Authority" means the Chicago Transit Authority acting by and through the Chicago Transit Board or its duly authorized agent, servant or employee in connection with these Contract Documents. The term "Purchasing Agent" means the Purchasing Agent of the Chicago Transit Authority, whose duties and responsibilities are more particularly described in the "Purchase and Sales Regulations and Ordinances of the Chicago Transit Board," and the term "Designee" means any person or persons authorized by the Purchasing Agent to act for the Purchasing Agent in connection with this Contract. The singular shall include the plural and the masculine includes the feminine.

2. COMPLIANCE WITH LAWS:

The bidders shall at all times observe and comply with all laws, ordinances, regulations and codes of the Federal, State, City, and other local government agencies, which may in any manner affect the preparation of bids or the performance of the Contract.

3. BID DEPOSIT:

A bid shall, when required in the advertisement, be accompanied by cash, a cashier's check, a certified check, a money order or an approved bid bond in the amount shown in the advertisement, and as may be prescribed in the Contract Documents.

All certified, cashier's checks or money orders shall be drawn on a responsible organization doing business in the United States and shall be made payable to the order of the Chicago Transit Authority.

Any bid bond submitted must reference the specific CTA inquiry numbers and have an Alfred M. Best Company "B+" Policyholders Rating and an "X" Financial Rating or better.

The period of the bond must be for not less than ninety (90) days from the date of bid opening.

4. PREPARATION OF BID:

The bidder shall prepare his bid in **DUPLICATE** on the attached bidding forms, submit one (1) copy and retain one (1) for your records. Unless otherwise stated on the bidding form, all blank spaces on the bid, applicable to the subject specification, must be correctly filled in. Either a unit price or a lump sum price, as the case may be, must be stated for each and every item, either typed in or written in ink, in figures, and if required, in words.

If bidder is a Corporation, the President or Vice-President and Secretary or Assistant Secretary, shall execute both copies of the bid. The Corporation shall affix its seal to both copies. In the event that this bid is executed by someone other than the President or Vice-President, a certified copy of that section of the Corporate By-Laws or resolution of the Corporation which permits the person to execute the offer for the Corporation shall be furnished with the bid.

If bidder is a Partnership or Joint-Venture, all partners or joint-ventures shall execute both copies of the bids unless one partner or joint-venture has been authorized to sign for the Partnership or Joint-Venture, in which case, evidence of such authority satisfactory to the Purchasing Agent shall be submitted with the bid.

If bidder is a Sole Proprietor, he shall execute both copies of the bid.

A "Partnership," "Joint-Venture" or "Sole Proprietor" operating under an Assumed Name must be registered with the Illinois County in which located, as provided in the Assumed Business Name Act, 805 ILCS 405 et seq., as amended.

ALL SIGNATURES MUST BE SWORN TO BEFORE A NOTARY PUBLIC

5. SUBMISSION OF BIDS:

All prospective bidders shall submit **ONE (1) SEALED BID** in the envelope provided for that purpose to the CHICAGO TRANSIT AUTHORITY, Bid Office – 2nd Floor, 567 W. Lake Street, Chicago, Illinois 60661-1498; or, if the bid is submitted in an envelope other than those so provided for this purpose, then the sealed envelope submitted by the prospective bidder shall carry the following information on the face of the envelope: **bidder's name, address, subject matter of bid, including identifying numbers, advertised date of bid opening, and the hour designated for the bid opening as shown on the advertisement.**

Where bids are sent by mail to the CTA Bid Office, the bidders shall be responsible for their delivery to the Bid Office before the advertised date and hour for the opening of bids. If the mail is delayed beyond the date and hour set for the bid opening, bids thus delayed will not be considered and will be returned unopened.

Where bids are sent by delivery service or delivered in-person to the CTA Bid Office, the bidders shall be responsible for their delivery to the Bid Office before the advertised date and hour for the opening of bids. If the delivery of the bid is delayed beyond the date and hour set for the bid opening, bids thus delayed will not be considered and will be returned unopened. The Bid Office hours are Monday through Friday from 8:00 am to 4:30 pm Chicago time, except holidays.

6. WITHDRAWAL OF BIDS:

Bidders may withdraw their bids at any time prior to the date and hour specified in the advertisement for the receipt of bids. However, no bidder shall withdraw or cancel his bid for a period of ninety (90) calendar days after said advertised date and hour for the receipt of bids.

7. RESPONSIBILITY OF BIDDER:

The Authority reserves the right to refuse to accept any bid from any person, firm or corporation that is in arrears or is in default to the Chicago Transit Authority upon any debt or contract, or that is a defaulter, as surety or otherwise, upon any obligations to the Authority, or had failed to perform faithfully any previous contract with the Authority.

The bidder, if requested, must present within two (2) working days, evidence satisfactory to the Purchasing Agent or his designee, of performance ability and possession of necessary facilities, pecuniary resources and adequate insurance to comply with the terms of these specifications and Contract Documents.

8. CONSIDERATION OF BIDS:

The Authority reserves the right to extend the bid opening date and to reject any or all bids or any part thereof. The Authority further reserves the right to excuse informalities in the bids and bidding when, in the judgment of the Authority, the best interests of the Authority will be served and the spirit of competition will be maintained.

9. NEGOTIATED CONTRACTS:

The Authority reserves the right to reject all bids received and negotiate a contract with any an all responsible bidders, if the bids received are at unreasonable prices but otherwise acceptable, or for other reasons determined to be clearly in the public's best interest and in accordance with established guidelines.

In the event that negotiations are conducted, the Authority or its duly authorized representative shall have the right to examine and audit books, records, documents and other evidence and accounting procedures and practices, sufficient to reflect properly all costs claimed to have been incurred or anticipated in performing this contract. The Contractor agrees to include in first-tier subcontracts under this contract a clause to the effect that the Authority or duly authorized representatives have access to and the right to examine any of the subcontractor's directly pertinent books, documents, papers, or other records involving transactions related to the subcontract.

10. ACCEPTANCE OF BIDS:

The Authority will accept in writing one or more of the bids or reject all bids within ninety (90) days from the date of opening the bids, unless the lowest responsible bidder, upon request of the Purchasing Agent or his designee, extend the time of acceptance.

The contract shall not be in force and effect until the Chairman of the Board of the Chicago Transit Authority, or his designee, has affixed his signature to the Contract Document.

11. PERFORMANCE-PAYMENT BOND AND INSURANCE:

When required by the Contract Documents, the successful bidder or bidders shall, within ten (10) working days after acceptance of the bid by the Authority, furnish a performance-payment bond in the full amount of the contract on an approved American Institute of Architects (A.I.A.) bond form and/or furnish and keep in force, during the life of the contract, any and all insurance in amounts designated, as provided in the Insurance Requirements, form CTA 415.27 (Revised) attached hereto, with insurance companies acceptable to the Chicago Transit Authority. Any insurance company with less than a (B+) policyholder rating by Alfred M. Best Co. will not be acceptable to the Chicago Transit Authority.

12. FAILURE TO FURNISH BOND OR INSURANCE:

In the event that the bidder fails to furnish the performance-payment bond and/or insurance requirements in said period of ten (10) working days after acceptance of the bid, then, the bid deposit of the bidder may be retained by the Authority. This bid deposit may be used as liquidated damages, not as a penalty, to partially cover costs and losses by the Authority.

13. INTERPRETATION OF CONTRACT DOCUMENTS:

If any person contemplating submitting a bid is in doubt as to the meaning of any part of the Contract Documents, he may submit to the Purchasing Agent a written request for an interpretation thereof. The person submitting the request will be responsible for its prompt delivery. Any interpretation of the proposed documents will be made only by Addendum duly issued by the Purchasing Agent or his designee. A copy of such addendum will be mailed or delivered to each person receiving a set of such Contract Documents and to such other prospective bidders as shall have requested that they be furnished with a copy of each Addendum. Failure on the part of the prospective bidder to receive a written interpretation prior to the time of the opening of bids will not be grounds for withdrawal of bid. Oral explanation will not be binding. **Bidder must acknowledge receipt of each addendum issued in space provided on the signature page of Bid Documents.**

14. CATALOGS:

Subsequent to bid opening, when requested by the Purchasing Agent or his designee, each bidder shall submit in **DUPLICATE**, catalogs, descriptive literature, and detailed drawings, fully detailing features, designs, construction, appointments, and finishes, necessary to fully describe the material or work he proposes to furnish. This information will be furnished to the Authority within ten (10) calendar days from date of request. Failure to furnish this information may result in the disqualification of the Bid.

15. TRADE NAMES:

In cases where an item is identified by a manufacturer's name, trade name, catalog number, or reference, it is understood that the bidder proposes to furnish the item so identified and does not propose to furnish an "equal" unless the proposed "equal" is definitely indicated by the bid.

The reference to the manufacturer's name, trade name, catalog number, or reference, is intended to be descriptive but not restrictive and only to indicate to the prospective bidder articles that will be satisfactory. Bids on other makes and catalogs will be considered, provided each bidder clearly states on the face of his bid exactly what he proposes to furnish, or forwards with the bid, a cut, illustration, or other descriptive matter which will clearly indicate the character of the article covered by his bid.

The Purchasing Agent, or his designee, hereby reserves the right to approve an "equal" or to reject as not being an "equal," any article the bidder proposes to furnish which contains variations from specification requirements.

16. RETURN OF BID DEPOSIT:

The bid deposit of all bidders, except the two apparent lowest bidders on each contract, will be returned within ten (10) calendar days after the opening of bids. The bid deposit of the two apparent lowest bidders will be returned after the bid has been accepted by the Authority including the acceptance by the Authority of satisfactory performance-payment bond and/or insurance where such bond or insurance are required.

Within 10 days after the date of opening of bids a bidder may request that a bid bond be substituted for the bid deposit. The Manager, Material Management, may allow substitution of a bid deposit upon application in writing to the Manager, Materials Management, and submittal of a bid bond in an amount equal to the bid deposit. Any bid bond submitted must reference the specific CTA inquiry number and have an Alfred M. Best Company "B+" Policyholders Rating and an "X" Financial Rating.

The period of the bond must be for not less than ninety (90) days from the date of bid opening.

17. TAXES:

Federal Excise Tax does not apply to materials purchased by the Chicago Transit Authority by virtue of Exemption Certificate No. 36-73-0234K. Illinois Retailers' Occupation Tax, Use Tax, and Municipal Retailers' Occupational Tax does not apply to materials or services purchased by the Authority by virtue of Statute Chapter 111 2/3 and Section 333, Illinois Revised Statutes as amended. These taxes shall not be included in any of the prices quoted herein. Illinois Tax Exemption Identification number is E9978-2987-05. The prices quoted herein shall agree with all Federal Laws and Regulations.

18. ORDER OF PRECEDENCE OF COMPONENT PARTS OF THE CONTRACT DOCUMENTS:

The order of precedence of the component parts of the Contract Documents shall be as follows:

- | | |
|--|---|
| 1. General Conditions | 6. Bid and Signature and Acceptance forms |
| 2. Special Conditions | 7. Advertisement for Bids |
| 3. Plans and Drawings, if any | 8. Instructions to Bidders |
| 4. Detailed Specifications | 9. Bond, if required |
| 5. Standard Requirements of State and Federal Government, if any | 10. Insurance, if required |

Any Addenda, which may be issued, shall be a part of these Contract Documents and shall take precedence over any other part of the Contract Documents wherever they conflict therewith.

The foregoing order of precedence shall govern the interpretation of the Contract Documents in all cases of conflict or inconsistency therein, except as may be otherwise expressly provided in other component parts of the Contract Documents.

19. NOTICE:

All communications and notices provided herein shall be in writing, delivered personally or by mail, to the name and address of the accepted bidder as provided on the signature page of the bid hereof, or to the Chicago Transit Authority. Attention, Purchasing Agent. 567 W. Lake Street, Chicago, IL 60661-1498.

CONTRACT FOR SUPPLIES

GENERAL CONDITIONS

1. NON-DISCRIMINATION:

The Contractor, in performing under this Contract, shall not discriminate against any worker, employee or applicant or any member of the public, because of race, creed, color, age, sex ancestry, handicap or national origin, nor otherwise commit an unfair employment practice. The Contractor further agrees that this Article will be incorporated by the Contractor in all contracts entered into with suppliers of materials or services, contractors and subcontractors, and all labor organizations furnishing skilled, unskilled and craft union skilled labor, or who may perform any such labor or services in connection with the Contract.

The Contractor's attention is called to the provisions of the Illinois Human Rights Act, which are hereby incorporated by reference.

To demonstrate compliance, the Contractor and his subcontractors will furnish such reports and information as requested by Chicago Transit Authority or any Federal, State or local government or agencies that may require such information as a condition of financial assistance in whole or in part.

2. DISADVANTAGED BUSINESS ENTERPRISES:

All parties are hereby notified that in regard to any contract resulting from this invitation to bid, Disadvantaged Business Enterprises will be afforded full opportunity to participate, and will not be discriminated against because of race, color, sex, or national origin in consideration for an award.

3. INDEMNIFICATION:

The contractor shall indemnify, keep and hold harmless the Chicago Transit Authority, its officers, employees and agents against all injuries, deaths, losses, damages, claims, suits, liabilities, judgments, costs and expenses, of whatever kind, including but not limited to attorney's fees, which may accrue against the Chicago Transit Authority, its officers, employees and agents arising out of, as a result of, or in consequence of the acts or omissions of the Contractor in furtherance of the contract, including acts or omissions of the Contractor's servants, employees, subcontractors, agents, or officers, in the performance of the work covered by the contract.

4. SUBLETTING OR ASSIGNMENT OF CONTRACT OR CONTRACT FUNDS:

No contracts shall be assigned or sublet in whole or in part without the written approval of the Purchasing Agent, and in no case shall such written approval relieve the Contractor from his obligations or change the terms of the Contract Documents.

The Contractor shall not transfer or assign any contract funds or claims due or to become due without the written approval of the Purchasing Agent having been first obtained.

5. GUARANTEES AND WARRANTIES:

All guarantees and warranties required shall be furnished by the Contractor and shall be delivered to the Purchasing Agent or his designee before final payment on the contract is issued.

6. DELIVERY:

All materials shipped to the Chicago Transit Authority must be shipped F.O.B. destination location. Chicago Metropolitan Area, Illinois. If prior delivery notification is specified, arrangements must be made by the vendor with the Authority's designated receiving location at least 24 hours in advance to arrange for receipt of the materials. The material must then be delivered where directed and as agreed upon.

Unless otherwise specified or agreed upon, truck deliveries to locations other than 567 W. Lake will be accepted not earlier than 7:00 A.M. and not later than 3:00 P.M. on weekdays only. No deliveries will be accepted on Saturdays, Sundays or Holidays. Deliveries to 567 W. Lake shall be made between 8:00 A.M. and 4:00 P.M., on weekdays only.

The quantity of material delivered by truck shall be ascertained from a weight certificate issued by a duly licensed Chicago Public Weigh-Master upon request. In the case of delivery by rail, weight will be ascertained from bill-of-lading from originating line, but the Authority reserves the right to re-weigh at the nearest available railroad scale.

7. DEMURRAGE AND RE-SPOTTING:

The Authority will be responsible for demurrage charges only when such charges accrue because of the Authority's failure to unload the material.

The Authority will pay railroad charges due to the re-spotting of cars, only when such re-spotting is ordered by the Authority.

8. MATERIALS INSPECTION AND RESPONSIBILITY:

The Purchasing Agent, or his designee, shall have a right to inspect any materials to be used in carrying out this contract.

The Authority does not assume any responsibility for the availability of any controlled materials or other materials and equipment required under this contract. All materials and equipment furnished under the contract shall be new, unless otherwise specifically stated.

The Contractor shall be responsible for the contracted quality and standards of all materials, components or completed work furnished under this contract.

Materials, components or completed work not complying therewith may be rejected by the Purchasing Agent or his designee and shall be replaced by the Contractor at no cost to the Authority.

Any materials or components rejected shall be removed within a reasonable time from the premises of the Authority, at the entire expense of the Contractor, after written notice has been mailed by the Authority to the Contractor that such materials or components have been rejected.

9. ORDER OF PRECEDENCE OF BEST PRICE:

In determining the best price, the Authority reserves the right to consider the bids in the following order of precedence:

- A. Firm fixed price or charge;
- B. Base price or charge plus escalation specified in Special Conditions, if any;
- C. Base price or charge plus maximum percent or dollar escalation.

In the event that a contract is awarded that includes an escalation provision, the Authority reserves the right to require evidence satisfactory to the Authority which justifies any and all price or charge increases provided under the escalation provision. Such evidence shall be requested in writing within ten (10) working days from receipt of invoices, clearly designating that part of the billing, which reflects the escalated price or charge.

10. PAYMENT:

Payment to Contractor shall be as specified in Special Conditions of this contract.

11. CASH BILLING DISCOUNT:

Cash Billing or percentage discount for payment of invoices within a specified period of time will not be considered by CTA in evaluating bids. When determining if it has earned a cash billing discount offered by the contractor, CTA will consider the date of the invoice plus two days for mailing or the date of receipt of the goods or services, whichever is later, and will end on the date the check is mailed in payment of the invoice. If a discount period ends on a Saturday, Sunday or legal holiday, the discount periods will be extended to the next succeeding workday.

12. INVOICES:

Invoices must be sent to the Chicago Transit Authority, Accounts Payable, 567 W. Lake Street, Chicago, IL 60661-1498. Invoices must bear the order number and, if an annual contract, release number as issued. Invoices must not cover more than one order or release number.

13. PRICE REDUCTION:

If the Contractor to whom a contract has been awarded makes a general price reduction effective on or after the date of his bid in the comparable price of any material covered by the contract to customers generally, an equivalent price reduction based on similar quantities and/or considerations shall apply to the contract for the duration of the contract period (or until the price is further reduced). Such price reductions shall be effective at the same time and in the same manner as the reduction in the price to customers generally. For the purpose of this provision, a "general price reduction" shall mean any horizontal reduction in the price of an article or service offered—(1) to Contractor's customers generally, or (2) in the Contractor's price schedule for the class of customers, i.e., wholesalers, jobbers, retailers, etc., which was used as the basis for bidding on this contract. An occasional sale at a lower price, or sale of distressed merchandise at a lower price, would not be considered a "general price reduction" under this provision. The Contractor shall invoice the Authority as such reduced prices, indicating on the invoice that the reduction is pursuant to the "Price Reduction" provision of the Contract Documents. The Contractor, in addition, shall within ten (10) days of any general price reduction notify the Purchasing Agent of the Chicago Transit Authority of such reduction by letter. Failure to do so may require termination of this contract.

The Contractor, when required by the Purchasing Agent within ten (10) days after the end of the contract period, shall furnish a statement certifying either—(1) that no general price reduction, as defined herein, was made after the date of the bid or offer, or (2) if any such general price reductions were made, that, as provided herein, they were reported to the Purchasing Agent within ten (10) days, and the Authority was billed at the reduced prices. Where one or more such general price reductions were made, the statement furnished by the Contractor shall include, with respect to each price reduction,—(1) the date when notice of any such reduction was issued, (2) the effective date of the reduction, and (3) the date when the Purchasing Agent was notified of any such reduction.

14. DEFAULT:

(a) The Authority may, subject to the provision of Paragraph (c) below, by written notice of default to the Contractor, terminate the whole or any part of this contract in any one of the following circumstances:

- (i) if the Contractor fails to make delivery of the supplies or to perform the services within the time specified herein or any extension thereof; or
- (ii) if the Contractor fails to perform any of the other provisions of this contract, or so fails to make progress as to endanger performance of this contract in accordance with its terms, and in either of these two circumstances does not cure such failure within a period of ten (10) days (or such other period as the Purchasing Agent may authorize in writing) after receipt of notice from the Purchasing Agent specifying such failure.

(b) In the event the Authority terminates this contract in whole or in part as provided in Paragraph (a) of this clause, the Authority may procure, upon such terms and in such manner as the Purchasing Agent may deem appropriate, supplies or services similar to those so terminated, and the Contractor shall be liable to the Authority for any excess costs for such similar supplies or services. **Provided:** That the Contractor shall continue the performance of this contract to the extent not terminated under the provisions of this clause.

(c) The Contractor shall not be liable for any excess costs if acceptable evidence has been submitted to the Purchasing Agent that failure to perform the contract was due to causes beyond the control and without the fault or negligence of the Contractor.

15. DISPUTES:

Except as otherwise provided in this contract, any dispute concerning a question of fact arising under this contract which is not disposed of shall be decided after hearing by the Purchasing Agent who shall reduce his decision to writing. This decision shall be final and binding. A copy of the decision shall be communicated to the Contractor as herein provided.

16. EXECUTION:

All business which submit responses or bids and all businesses awarded contracts by the CTA are hereby notified that no contract, modification, amendment, change order or extension, if any, shall be effective, or in any way obligate the CTA, until it has been executed by the CTA signatory duly authorized by the CTA's Regulations, By Laws, and Procedures.

**SPECIAL CONDITIONS
DISADVANTAGED BUSINESS ENTERPRISE COMMITMENT
INVITATION FOR BIDS
REQUISITION NUMBER: B11OP03602**

I. POLICY AND TERMS

- A. The policy of the Chicago Transit Authority is to create a level playing field on which Disadvantaged Business Enterprises (DBE) as defined in United States Department of Transportation (USDOT) Regulation 49 C.F.R. Part 26.
- B. The Authority has established the following DBE participation goal for this project:

Disadvantaged Business Enterprise Goal: 0%

- C. The DBE participation goal shall be expressed as a percentage of the total contract price. However, in the event this is a revenue generating contract, the DBE participation goal is based on the bidder's operating expenses and not on the total anticipated revenue to be generated by the contract. The bidder may also meet the goal by showing good faith efforts to meet the goal as described in 49 C.F.R. Part 26 and as set forth in Section V below. **Any evidence of good faith efforts must be submitted with the sealed bid or the bid will be rejected in its entirety.**
- D. The DBE participation goal shall apply to the total dollar value of this contract, inclusive of all amendments, modifications, options, and change orders. The bidder agrees to make its best effort to include DBE participation in any contract modification work.
- E. The goal may be met, as further explained in Section IV hereof, by the bidder's status as a DBE, by a joint venture with one or more DBEs, by subcontracting a portion of the work to one or more DBEs, by the purchase of materials used in the performance of the contract from one or more DBEs or by any combination of the above or through a showing of good faith efforts as defined in Section V hereof.
- F. A bidder who fails to meet the DBE goal and fails to demonstrate sufficient and reasonable good faith efforts shall not be eligible to be awarded the contract. All documentation of good faith efforts by a bidder **must** be included in the envelope or package containing the bid.
- G. The Authority prohibits agreements between a bidder and a DBE in which the DBE promises not to provide subcontracting quotations to other bidders.

II. DEFINITIONS

- A. **"Area of Specialty"** means the description of the DBE's business, which has been determined by the General Manager, DBE Program, to be most reflective of the DBE's claimed specialty or expertise. Credit toward the DBE participation goal for this contract shall be limited to the participation of firms performing within their Area of Specialty. The Authority reserves the right to investigate and determine active DBE participation and applicable DBE credit specifically identified for this contract prior to award.

NOTICE: The Authority does not make any representations concerning the ability of any DBE to perform work within its Area of Specialty. It is the responsibility of the bidder to determine the capability and capacity of the DBE firms to satisfactorily perform the work proposed.

- B. **"Bid"** includes the following Authority purchasing requests: Invitation for Bids (IFB).
- C. **"Bidder"** includes bidders and contractors. The terms "Bidder" and "Contractor" may be used interchangeably in these Special Conditions.
- D. **"Disadvantaged Business Enterprise" or "DBE"** means a small business certified by the Illinois Universal Certification Program (IL UCP) as a business owned and controlled by socially and economically disadvantaged individuals in accordance with USDOT Regulation 49 CFR, Part 26.
- E. **"Directory"** means the Directory of Certified Disadvantaged Business Enterprises maintained and published by IL UCP and entitled the "IL UCP DBE Directory." The directory will be available on the Authority's web site. Bidders are responsible for verifying the current certification status of all proposed DBE's.
- F. **"Good Faith Efforts"** means efforts to achieve a DBE contract goal as specified in 49 CFR, Part 26 and Section V hereof.
- G. **"IL UCP"** means the Illinois Unified Certification Program.
- H. **"Joint Venture"** means an association of two or more businesses to carry out a single business enterprise for profit, and for which purpose they combine their expertise, property, capital, efforts, skill and knowledge. Bidders may develop joint venture agreements as an instrument to provide participation by DBEs in contract work. A joint venture seeking to be credited for DBE participation may be formed among DBE firms or between a DBE firm and non-DBE firm.

In order to qualify for credit as a DBE, the DBE must be responsible for a distinct, clearly defined portion of the work and the DBE must share in the capital contribution, control, management, risks and profits of the joint venture commensurate with its ownership interest.
- I. **"Purchasing Agent"** means the Authority employee who holds the position of General Manager, Purchasing, or the successor position.
- J. **"Small Business Concern"** means a small business as defined pursuant to Section 3 of the Small Business Act and relevant regulations promulgated pursuant thereto except that a small business concern shall not include any concern or groups of concerns controlled by the same socially and economically disadvantaged individual or individuals which has annual average gross receipts in excess of \$22.41 million, or as revised from time to time, over the three (3) previous fiscal years.
- K. **"Socially and Economically Disadvantaged Individuals"** means any individual who is a citizen of the United States (or lawfully admitted permanent residents) and who is in the following groups, the 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), Thailand, Malaysia, Indonesia, Vietnam, Laos, Cambodia (Kampuchea), the Philippines, Brunei, Samoa, Guam, the U.S. Trust Territories of the Pacific (Republic of Palau), and the Commonwealth of the Northern Marianas Islands, Macao, Fiji, Tonga, Kiribati, Jauvlu, Nauru, Federated States of Micronesia or Hong Kong; and
5. **"Subcontinent Asian Americans"**, which includes persons whose origins are from India, Pakistan, Bangladesh, Bhutan, the Maldives Islands, Nepal or Sri Lanka.
6. **"Women"**
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.

The General Manager, DBE Program, may determine on a case-by-case basis that individuals who are not members of one of the above-listed groups are socially and economically disadvantaged.

L. "USDOT" or "DOT" refers to the U.S. Department of Transportation.

III. JOINT VENTURES

The General Manager, DBE Program, will evaluate the joint venture agreement submitted on behalf of the proposed joint venture and all related documents to determine whether these DBE requirements have been satisfied. In addition, the General Manager, DBE Program, will consider the record of the joint venturers as joint venturers on other Authority contracts, if any.

NOTE: DBE/non-DBE joint ventures are creditable at any tier. Whenever a joint venture is proposed as the prime Contractor, Authority requires that each joint venturer sign the bid submitted to the Authority.

IV. COUNTING DBE PARTICIPATION TOWARD THE CONTRACT GOAL

The inclusion of any DBE by the bidder in its bid documents shall not conclusively establish the bidder's eligibility for full DBE credit for the firm's participation in the contract. The amount of DBE participation credit shall be based upon an analysis by the General Manager, DBE Program, of the specific duties which will be performed by the DBE.

The bidder may count toward its DBE goal only expenditures to firms which are currently certified by the IL UCP and which perform a commercially useful function. A firm is considered to perform a commercially useful function when it is responsible for the performance of a distinct element of the work and carries out its responsibilities by actually performing, managing and supervising the work involved.

To determine whether a firm is performing a commercially useful function, the General Manager, DBE Program, will evaluate the amount of work subcontracted, industry practices and other relevant factors. The General Manager, DBE Program, reserves the right to deny or limit DBE credit to the bidder where any DBE is found to be engaged in substantial pass-through activities with others.

DBE participation shall be counted toward the DBE goal in the contract as follows:

- A.** Once a DBE is determined to be eligible in accordance with these rules, the total dollar value of the contract awarded to the DBE may be counted toward the DBE goal except as indicated below.
- B.** A bidder may count toward its DBE goal that portion of the total dollar value of a contract with an eligible joint venture equal to the distinct, clearly defined portion of the work of the contract that the DBE performs with its own forces.
- C.** Consistent with normal industry practices, a DBE may enter into subcontracts. If a DBE subcontracts more than thirty percent (30%) or a significantly greater portion of the work of the contract than would be expected on the basis of normal industry practices, the DBE shall be presumed not to be performing a commercially useful function. Evidence may be presented by the bidder involved to rebut this presumption.
- D.** When a DBE subcontracts a part of the work under the contract to another firm, the value of the subcontracted work may only be counted towards the DBE goal 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.
- E.** The bidder may count one-hundred percent (100%) of its expenditures for materials and supplies required under the contract and which are obtained from a DBE manufacturer towards the DBE goal. The bidder may count sixty percent (60%) of its expenditures for material and supplies under the contract obtained from a DBE regular dealer towards its DBE goal. The terms "manufacturer" and "regular dealer" are defined in 49 C.F.R. Part 26.55(e)(1)(ii) and (2)(ii).
- F.** The bidder may count towards its DBE goal expenditures to DBEs which are not manufacturers or regular dealers, such as fees or commissions charged for services and assistance in the procurement of essential personnel, facilities, equipment, materials or supplies and transportation charges as set forth in 49 C.F.R. Part 26. However, the General Manager, DBE Program, must determine the fee or charge to be reasonable and not excessive as compared with fees or charges customarily allowed for similar services.
- G.** The bidder must use good business judgment when negotiating with subcontractors and take a DBE's price and capabilities into consideration. The fact that there may be some additional costs involved in finding and using DBE firms is not sufficient reason to fail to meet the DBE goal set forth in the contract, as long as such costs are reasonable.

V. GOOD FAITH EFFORTS

In order to be responsive, a bidder must make good faith efforts to meet the DBE participation goal set forth in the contract. The bidder must document the good faith efforts it made in that regard. Thus, the Bid submitted to the Authority must be accompanied by written documentation prepared by the bidder evidencing all of its sufficient and reasonable good faith efforts toward fulfilling the goal. These efforts must be active steps, and ones, which could reasonably be expected to lead to sufficient DBE participation to meet the contract DBE participation goal. Mere *pro forma* efforts are not acceptable and will be rejected by the General Manager, DBE Program.

Good Faith Efforts require that the bidder consider all qualified DBEs, who express an interest in performing work under the contract. This means that the bidder cannot reject a DBE as unqualified unless the bidder has sound reasons based on a thorough investigation of the DBE's capabilities. Further, the DBE's standing within its industry, membership in specific groups, organizations or associations and political or social affiliation (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 contract DBE participation goal.

The following list, which is not exclusive or exhaustive, sets forth the types of actions, which indicate good faith efforts on the part of a bidder to meet the DBE goal. The extent and type of actions required will vary depending on such things as industry practice; the time available for submitting a bid and the type of contract involved.

- A. Attendance at a pre-bid meeting, if any, scheduled by the Authority to inform DBEs of subcontracting opportunities under a given solicitation.
- B. Advertisement in general circulation media, trade association publications, and minority-focus media for at least twenty (20) days before bids are due. If 20 days are not available, publication for a shorter reasonable time is acceptable.
- C. Written notification to capable DBEs that their interest in the contract is solicited.
- D. Documentation of efforts to negotiate with DBEs for specific sub-contracts including at a minimum:
 - 1. The names, addresses, and telephone numbers of DBEs that were contacted and the date(s) of contact.
 - 2. A description of the information provided to DBEs regarding the plans and specifications for portions of the work to be performed.
 - 3. A statement explaining why additional agreements with DBEs were not reached.
- E. For each DBE the bidder contacted but rejected as unqualified, the reason for the bidder's conclusion.
- F. Documentation of efforts made to assist the DBEs contacted that needed assistance in obtaining bonding or insurance required by the bidder or the Authority.

- G. Documentation of efforts to utilize the services of small business organizations, community and contractor groups to locate qualified DBEs.
- H. Documentation that the bidder has broken out contract work items into economically feasible units in fields where there are available DBE firms to perform the work.
- I. Evidence that adequate information was provided to interested DBEs about the plans, specifications and requirements of the contract, and that such information was communicated in a timely manner.
- J. Documentation of any efforts made to assist interested DBEs in obtaining necessary equipment, supplies, materials or related assistance or services.

VI. GOOD FAITH EFFORTS RECONSIDERATION

If it is determined that the apparent successful low bidders have failed to meet the requirements of the contract goal/good faith efforts, the Authority will provide them with **ONE** opportunity for administrative reconsideration, *before the Authority awards the contract*. This reconsideration will include the following:

- A. The bidder will be permitted to either provide written evidence or to present oral argument at a pre-scheduled time that the documentation it submitted with its bid met the DBE goal and/or showed good faith efforts to do so. **No new evidence of good faith efforts may be presented after the bid submission deadline.**
- B. The Authority's Reconsideration Officer will review the evidence presented by the bidder and issue a written determination that the bidder has: 1) met the DBE goal; 2) not met the DBE goal but has made adequate good faith efforts to do so; or 3) has not met the DBE goal and the good faith efforts made were not adequate.
- C. The decision of the Authority's Reconsideration Officer is final and may not be appealed to the Authority or its funding agencies.
- D. The Authority will not award a contract to any bidder who does not meet the contract DBE participation goal or show good faith efforts to meet that goal. Thus, it is essential that all bidders submit ALL relevant documentation concerning the DBE goal and/or good faith efforts in the envelope or package containing their sealed bid.

VII. PROCEDURE TO DETERMINE BID COMPLIANCE

The bidder must complete and sign Schedule D to the Contract documents and must sign Schedule C. If the bidder is a joint venture, the bidder **MUST** complete and sign Schedule B. Schedule C **MUST** be completed and signed by the DBE subcontractor(s). All three Schedules **MUST** be submitted at the same time as or prior to submittal of the sealed bid. In addition, any documentation evidencing the bidder's good faith efforts to meet the contract DBE goal must be submitted with the bid. Any bids submitted without completed and executed Schedules C & D and/or evidence of good faith efforts, if applicable, will be deemed non-responsive and will be rejected by the Authority.

A. Letters of Certification

1. A copy of each proposed DBE firm's current Letter of Certification or re-certification from the IL UCP should be submitted with the bid. **ALL CERTIFICATIONS BY THE IL UCP MUST BE PRE-CERTIFICATIONS. This means that the DBE's certification must be issued by the IL UCP before the due date for bids.**
2. All Letters of Certification or Re-certification issued by the IL UCP must include a statement of the DBE firm's area of specialization and appropriate DBE goal credit (see Section IV. COUNTING DBE PARTICIPATION TOWARD THE CONTRACT GOAL). The DBE firm's scope of work set forth on Schedule C must conform to its stated area of specialization. Where a DBE is proposed to perform work not covered by its area of specialization, the DBE firm must request an expansion of its area of specialization from the Authority in writing plus any other documentation required by the Authority to process said request prior to the time set by the Authority for bid opening. Further, the DBE's request must be agreed to by the General Manager, DBE Program, and the DBE firm must be certified prior to **DUE DATE OF BIDS**.

B. Joint Ventures

1. Where the bidder proposes to include in its bid a DBE, which is a joint venturer, the bidder must submit a fully executed copy of the joint venture agreement with its bid. The joint venture agreement must show that the DBE firm will be responsible for a clearly defined portion of the work to be performed, and that the DBE firm's capital contribution, control, management, risks and profits are commensurate with its ownership interest.
2. Further, the proposed joint venture agreement shall include specific details related to: 1) contributions of capital and equipment; 2) work items to be performed by the DBE's own forces; 3) work items to be performed under the supervision of the DBE; 4) the DBE management, supervisory and operating personnel to be dedicated to the performance of the project; and (5) the authority of each joint venturer to contractually obligate the joint venture and to expend funds. Failure to submit a copy of the joint venture agreement will cause the firm to be considered by the Authority to be non-responsible.

VIII. REPORTING REQUIREMENTS DURING THE TERM OF THE CONTRACT

- A. The bidder shall, within seven (7) calendar days of contract award, or prior to any work being performed by the DBE subcontractor, execute written subcontracts or purchase orders with the DBE subcontractors included in the bid. In the event the bidder cannot complete the agreement with one or more DBE subcontractors within this seven day period, the bidder must provide a written explanation for the delay and an estimated date by which the written agreement will be completed to the General Manager, DBE Program. These written agreements shall be made available to the General Manager, DBE Program, upon request. All contracts between the bidder and its subcontractors must contain a prompt payment clause as set forth in Section IX herein.

- B. During the term of annual contracts, the bidder shall submit regular "Status Reports of DBE Subcontract Payments" in a form acceptable to the Authority. The frequency with which these reports are to be submitted, will be determined by the General Manager, DBE Program, but in no event will reports be required less frequently than quarterly. **In the absence of written notice from the General Manager, DBE Program, the bidder's first "Status Report of DBE Subcontract Payments" will be due ninety (90) days after the date of contract award, with additional reports due quarterly thereafter.**
- C. In the case of a one-time procurement with either a single or multiple deliveries, a "Status Report of DBE Subcontract Payments," in a form acceptable to the Authority, indicating final DBE payments shall be submitted directly to the General Manager, DBE Program. The information must be submitted prior to or at the same time as the bidder's final invoice to the Authority user department identified in the solicitation. (NOTICE: The original invoices must be submitted directly to the Authority's department identified in the contract documents and the Status Report of DBE Subcontract Payments must be submitted directly to the General Manager, DBE Program.) **Failure to follow these directions may delay final payment.**
- D. The address for the General Manager, DBE Program, is: **CTA DBE-General Manager, Diversity Department, 567 W. Lake Street, Chicago, IL 60661-1465.**

IX. PROMPT PAYMENT TO SUBCONTRACTORS

- A. The Contractor is required to pay all Subcontractors for all work that the Subcontractor has satisfactorily completed, no later than seven (7) calendar days after the Contractor has received payment from the Authority. All of the Contractor's contracts with its Subcontractors must state that the Subcontractor will receive payment within 7 days of the date that the Contractor has received payment from the Authority.
- B. In addition, all Retainage amounts must be paid by the Contractor to the Subcontractor no later than fourteen (14) calendar days after the Subcontractor has, in the opinion of the VP Construction, satisfactorily completed its portion of the Work. All of the Contractor's contracts with its Subcontractors must state that the Subcontractor will receive payment of Retainage within fourteen (14) calendar days of the date that the Subcontractor has, in the opinion of the VP Construction, satisfactorily completed its portion of the Work.
- C. A delay in or postponement of payment to the Subcontractor requires good cause and prior written approval of the General Manager, Purchasing.
- D. The Contractor is required to include, in each subcontract, a clause requiring the use of appropriate arbitration mechanisms to resolve all payment disputes.
- E. The Authority will not pay the Contractor for work performed unless and until the Contractor ensures that the Subcontractors have been promptly paid for the work they have performed under all previous payment requests, as evidenced by the filing with the Authority of lien waivers, canceled checks (if requested), invoices and the Contractor's sworn statement that it has complied with the prompt payment requirements. Prime Contractors must submit a prompt payment affidavit, (form to be provided by the Authority) which identifies each subcontractor (both DBE and non-DBE) and

the date and amount of the last payment to such subcontractor, with every payment request filed with the Authority, except for the first payment request, on every contract with the Authority.

- F. Failure to comply with these prompt payment requirements is a breach of the Contract which may lead to any remedies permitted under law, including, but not limited to, Contractor debarment. In addition, Contractor's failure to promptly pay its Subcontractors is subject to the provisions of 50 ILCS 505/9.

X. DBE SUBSTITUTIONS

- A. Arbitrary changes by the bidder of the commitments previously indicated in **Schedule D** are prohibited. No changes may be made by the bidder to the DBE firms listed on Schedule D after the opening of bids but prior to contract award. However, in the event the Purchasing Agent, after consulting with the DBE Department, determines that a critical DBE subcontractor is non-responsible, the Authority may require that bidder replace the non-responsible DBE subcontractor prior to contract award. In that event, bidder must replace the non-responsible DBE subcontractor with a responsible, certified DBE subcontractor or show adequate good faith efforts as set forth Section V hereof, must submit all information required in subsection C.5 hereof, and must receive the prior written approval of the General Manager, DBE Program for such substitution.
- B. Further, after entering into each approved DBE subcontract, the Contractor shall neither terminate the subcontract for convenience, nor reduce the scope of the work to be performed by the DBE, nor decrease the price to the DBE, without receiving prior written approval of the General Manager, DBE Program. Such approval is required even if the DBE agrees with the change to the DBE's contract desired by the Contractor.
- C. It may become necessary, at times, to substitute a new subcontractor in order to complete the contract work. The substitution procedure to be followed is:
 - 1. The Contractor must immediately notify the General Manager, DBE Program, in writing, of the proposed substitution of subcontractor. The Contractor's notification must include the specific reasons it intends to reduce the scope of or terminate a DBE subcontract; adequate documentation to support the Contractor's proposed action; and a proposed substitute firm to complete the DBE's portion of work.
 - 2. The following is a non-exclusive list of the types of reasons, which justify substitution: the DBE was found not to be able to perform, or not to be able to perform on time; the DBE's work product was not acceptable; the DBE demands an unreasonable escalation of its price.
 - 3. The following is a non-exclusive list of the types of reasons which do not justify substitution: a replacement firm has been recruited by the Contractor to perform the same work under more advantageous terms; performance issues by the DBE were disputed and every reasonable effort to have the dispute resolved or mediated has not been taken; the DBE has requested a reasonable price escalation which may be justified due to unforeseen circumstances (e.g., a change in scope of DBE's work).

4. If the subcontractor to be substituted for the DBE is not a DBE, the Contractor must show adequate good faith efforts as set forth in Section V hereof.
 5. The Contractor's request for approval of a substitution must include the name, address, and principal official of the proposed substitute subcontractor and the dollar value and scope of work of the proposed subcontract. If the new subcontractor is a DBE, all DBE affidavits and documents required by **Schedule C** shall be attached.
 6. The Authority will evaluate the submitted documentation and respond within fifteen (15) calendar days to the request for approval of a substitution. The Authority's response may approve the request, seek more information, request an interview to clarify the problem or reject the proposed DBE substitution, with the reasons for the rejection stated in the Authority's response. In the case of an expressed emergency need to receive the necessary decision for the sake of job progress, the Authority will respond as soon as practicable.
 7. Actual substitution by the Contractor may not be made prior to the Authority's approval. Once notified of the Authority's approval, the substitute subcontract must be executed within five (5) calendar days, and a copy submitted to the General Manager, DBE Program.
- D. The Authority will not approve extra payment for escalated costs incurred by the Contractor when a substitution of subcontractors becomes necessary in order to comply with the DBE requirements of the contract.

XI. NON-COMPLIANCE

- A. Failure to comply with the DBE requirements of the contract or failure to use DBEs as stated in the bid constitutes a material breach of contract. The General Manager, DBE Program, shall have the discretion to recommend to the Authority's Purchasing Agent that the Purchasing Agent apply suitable sanctions to the Contractor if the Contractor is found to be in non-compliance with the DBE requirements. Such sanctions include, but are not limited to, withholding payment to the Contractor until corrective action is taken; suspension and/or termination of the contract, in whole or in part; and debarring or suspending the Contractor from entering into future contracts with the Authority.
- B. The failure by the Contractor to use a DBE subcontractor to the extent the Contractor committed to use said DBE, gives the underutilized DBE specific contract remedies, including the right to damages, the right to resolve the dispute by binding arbitration before an independent arbitrator and the right to recover its reasonable expenses, including attorneys' fees, if the DBE is the prevailing party, as follows:
 1. Damages. In the event the Contractor has not complied with the contractual DBE percentage and the change to the contractual DBE usage has not been approved by the Authority, an affected DBE may recover from the Contractor damages suffered by said DBE as a result of being underutilized. This provision is intended for the benefit of any DBE affected by underutilization and grants such entity third party beneficiary rights. Any rights conferred by this provision are non-waivable and take precedence over any conflicting provisions in the agreement between the Contractor and the DBE.

2. Arbitration procedures. If requested by the DBE, the DBE shall have the right to initiate binding arbitration of any dispute concerning damages suffered as a result of being underutilized. A DBE desiring to arbitrate must notify the Contractor in writing to initiate the arbitration process. Unless the affected parties agree to a different schedule in writing, within ten (10) days of receipt by the Contractor of the intent to arbitrate from the DBE, the above-described disputes must be arbitrated in accordance with the Commercial Arbitration Rules of the American Arbitration Association ("AAA"), a not-for-profit agency, with an office at 225 North Michigan Avenue, Suite 2527, Chicago, Illinois 60601-7601. All such arbitrations must be initiated by the DBE filing a demand for arbitration with the AAA; must be conducted by the AAA; and must be held in Chicago, Illinois.
3. Fees. All fees of the arbitrator are the initial responsibility of the DBE; provided, however, that the arbitrator is authorized to award reasonable expenses, including attorneys' and arbitrator fees, as damages to a prevailing DBE.
4. Entry of judgment. Judgment upon the award rendered by the arbitrator may be entered in any court of competent jurisdiction.

C. In addition, federal and state laws apply to false representations, deception and fraud:

1. Illinois Law. Under Illinois law, it is a Class 2 felony to make certain false representations as to the status of a person or entity in obtaining a governmental contract. In addition, any person convicted of this felony offense must pay to the governmental unit that issued the contract a penalty equal to one and a half times the amount of the contract. 720 ILCS 5/17-29.
 2. Federal Law. False, fraudulent, or deceitful statements made in connection with DBE participation in federal Department of Transportation assisted programs could also result in liability under 49 CFR Part 31, Program Fraud and Civil Remedies and possible prosecution under 18 U.S.C. 1001.
- D. If the Contractor does not pay any subcontractor listed on a pay request or return a subcontractor's retainage within the time limits required under the prompt payment provision set forth in Section VIII hereof, the Contractor must pay the subcontractor an additional amount for interest at the lower of one percent (1%) per month or the highest lawful rate on the outstanding balance, for each month, prorated per diem for any partial month, that the Contractor fails or refuses to pay the subcontractor. All agreements between the Contractor and its subcontractors must provide for interest as set forth herein.
- E. The Contractor, sub recipient or subcontractor 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 DOT-assisted contracts. Failure by the Contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the Authority deems appropriate.

The Contractor agrees to include this assurance in all subcontracts.

XII. RECORD KEEPING

The Contractor shall maintain records of all relevant data with respect to the utilization of DBEs and shall retain these records for a period of at least three (3) years after final acceptance of the work. Full access to said records shall be granted to the Authority and its Inspector General, its Federal and/or State funding agencies, the U.S. Department of Justice, the USDOT and any duly authorized representatives thereof. In addition, the Contractor shall, at all times, cooperate with the Authority's Inspector General.

The bidder must also create a bidders list, consisting of information about all subcontractors that submitted a bid or quote. The bidders list will include the name, address, DBE/non-DBE status, age of firm and the appropriate range of annual gross receipts. Failure to submit this information will result in the firm being deemed non-responsible for the contract.

XIII. MINORITY FINANCIAL INSTITUTIONS

The proposer is encouraged to utilize financial institutions owned and controlled by socially and economically disadvantaged individuals. Use of such institutions may be considered by the Authority as evidence of proposer's willingness to do business with DBEs. Information about such institutions is available in the Authority's DBE Program Directory, which is available on-line at <http://www.federalreserve.gov/releases/mob/current/default.htm>.

DBE Assistance Agencies

The following agencies are available to prospective bidders for assistance.

<p>Alliance of Business Leaders & Entrepreneurs (ABLE) 150 N. Michigan Ave., Suite 2800 Chicago, IL 60601 Contact: Donna Gaines Phone: (312) 624-7733 Fax: (312) 275-7841 Email: dgaines@ablechicago.com Website: www.ablechicago.com Services</p> <ul style="list-style-type: none"> • Business Development 	<p>Black Contractor United (BCU) 400 W. 76th St., Suite 200 Chicago, IL 60620 Contact: Belinda Henderson Phone: (773) 483-4000 Fax: (773) 483-4150 Email: belinda_bcu@att.net Website: www.blackcontractorsunited.com Services</p> <ul style="list-style-type: none"> • Business Development
<p>Chatham Business Association (CBA) 8441 S. Cottage Grove Ave. Chicago, IL 60619 Contact: Melinda Kelly Phone: (773) 994-5006 Fax: (773) 994-9871 Email: melkelcba@sbcglobal.net Website: www.cbaworks.org Services</p> <ul style="list-style-type: none"> • Business Development • Certification Assistance • Technical Assistance 	<p>Chicago Minority Business Development Council, Inc. (CMBDC) 105 W. Adams Chicago, IL 60603 Contact: Shelia C. Hill Morgan Phone: (312) 755-8880 Fax: (312) 755-8890 Email: shillmorgan@chicagomsdc.org Website: www.cmbdc.org Services</p> <ul style="list-style-type: none"> • Business Development • Certification Assistance • Technical Assistance
<p>Chicago Urban League (CUL) 4510 S. Michigan Ave. Chicago, IL 60653 Contact: Kenya Spann Phone: (773) 285-5800 Fax: (773) 285-7772 Email: kspann@thechicagourbanleague.org Website: www.thechicagourbanleague.org Services</p> <ul style="list-style-type: none"> • Business Development 	<p>Federation of Women Contractors (FWC) 5650 S. Archer Ave. Chicago, IL 60638 Contact: Joan Anderse Phone: (312) 360-1122 Fax: (312) 360-0239 Email: joan@andersenpump.com Website: www.fwcchicago.com Services</p> <ul style="list-style-type: none"> • Business Development
<p>Hispanic-American Construction Industry Association (HACIA) 901 West Jackson Blvd., Suite 205 Chicago, IL 60607 Contact: Jorge Perez Phone: (312) 666-5910 ext. 22 Fax: (312) 666-5692 Email: jperez@haciaworks.org Website: www.haciaworks.org Services</p> <ul style="list-style-type: none"> • Business Development • Certification Assistance • Technical Assistance 	<p>Illinois Hispanic Chamber of Commerce (IHCC) 855 W. Adams, Suite 100 Chicago, IL 60607 Contact: Omar Duque Phone: (312) 425-9500 Fax: (312) 425-9510 Email: oduque@hccbusiness.net Website: www.ihccbbusiness.net Services</p> <ul style="list-style-type: none"> • Business Development • Certification Assistance • Technical Assistance

DBE Assistance Agencies (Continued)

<p>Philippine American Chamber of Commerce of Greater Chicago (PACCGC) 3413 N. Milwaukee Ave. Chicago, IL 60641 Contact: James Villar Phone: (773) 545-4330 Fax: (773) 545-4373 Email: jamesvillar@paccgc.org Website: www.paccgc.org Services</p> <ul style="list-style-type: none"> • Business Development • Certification Assistance • Technical Assistance 	<p>Women's Business Development Center (WBDC) 8 S. Michigan Ave., 4th Floor Chicago, IL 60603 Contact: Danae Kovac Phone: (312) 853-3477 Fax: (312) 853-0145 Email: dkovac@wbdc.org Website: www.wbdc.org Services</p> <ul style="list-style-type: none"> • Business Development • Certification Assistance • Technical Assistance
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Project information and current DBE directory of certified local and out-of-state companies are available.

<p>Chicago Transit Authority Project Information c/o Marina Popovic Purchasing Department 567 W. Lake St. Chicago, IL 60661-1498 Phone: (312) 681-2400 Fax: (312) 681-2405 E-mail: mpopovic@transitchicago.com</p>	<p>Chicago Transit Authority DBE Directory c/o Gloria M. Camarena Diversity Programs Department 567 W. Lake St. Chicago, IL 60661-1498 Phone: (312) 681-2600 Fax: (312) 681-2605 E-mail: gcamarena@transitchicago.com</p>
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Schedule B AFFIDAVIT OF DBE/NON-DBE JOINT VENTURE

This Schedule B need not be submitted if all joint venturers are DBEs. In such a case, however, the written joint venture agreement and a copy of the current IL UCP Letter of Certification for each DBE must be submitted.

ALL INFORMATION REQUESTED BY THIS SCHEDULE MUST BE ANSWERED IN THE SPACES PROVIDED BY JOINT VENTURERS AT ANY TIER. ADDITIONAL SHEETS MAY BE ATTACHED.

- I. **Name of joint venture:** _____
Address of joint venture: _____

Phone number of joint venture: _____
- II. **Identify each non-DBE venturer(s):**
Name of Firm: _____
Address: _____
Phone: _____
Contact person for matters concerning DBE compliance: _____
- III. **Identify each DBE venturer(s):**
Name of Firm: _____
Address: _____
Phone: _____
Contact person for matters concerning DBE compliance: _____
- IV. **Describe the role(s) of the DBE venturer(s) in the joint venture:**

- V. **Attach a copy of the joint venture agreement.** In order to demonstrate the DBE venturer's share in the ownership, control management responsibilities, risks and profits of the joint venture, the proposed joint venture agreement must include specific details related to: (1) the contributions of capital and equipment; (2) work items to be performed by the DBE's own forces, (3) work items to be performed under the supervision of the DBE venturer; and (4) the commitment of management, supervisory and operative personnel employed by the DBE to be dedicated to the performance of the project.
- VI. **Attach a copy of the current IL UCP Letter of Certification for each DBE joint venturer.**
- VII. **Ownership of the Joint Venture:**
A. **What is the percentage(s) of DBE ownership in the joint venture?**

DBE ownership percentage(s): _____
Non-DBE ownership percentage(s): _____

Schedule B
AFFIDAVIT OF DBE/NON-DBE JOINT VENTURE

VII. Ownership of the Joint Venture *(continued)*:

B. Specify DBE/non-DBE percentages for each of the following (provide narrative descriptions and other detail as applicable):

1. Sharing of profit and loss: _____

2. Capital contributions:

(a) Dollar amounts of initial contribution: _____

(b) Dollar amounts of anticipated on-going contributions: _____

3. Contributions of equipment *(specify types, quality and quantities of equipment to be provided by each venturer)*:

4. Other applicable ownership interests, including ownership options or other agreements, which restrict or limit ownership and/or control:

5. **Provide copies of all written agreements between venturers concerning this project.**

6. Identify each current Chicago Transit Authority contract and each contract completed during the past two (2) years by either of the joint venture partners participating in this joint venture:

VIII. Control of and Participation in the Joint Venture. Identify by name and firm those individuals who are, or will be, responsible for and have the authority to engage in the following management functions and policy decisions. (Indicate any limitations to their authority such as dollar limits and co-signatory requirements.):

A. Joint venture check signing:

B. Authority to enter contracts on behalf of the joint venture:

Schedule B
AFFIDAVIT OF DBE/NON-DBE JOINT VENTURE

C. Signing, co-signing and/or collateralizing loans:

D. Acquisition of lines of credit:

E. Acquisition and indemnification of payment and performance bonds:

F. Negotiating and signing labor agreements:

G. Management of contract performance. *(Identify by name and firm only):*

1. Supervision of field operations:

2. Major purchases:

3. Estimating:

4. Engineering:

IX. Financial Controls of Joint Venture:

A. Which firm and/or individual will be responsible for keeping the books of account?

B. Identify the "managing partner," if any, and describe the means and measure of their compensation:

C. What authority does each venturer have to commit or obligate the other to insurance and bonding companies, financing institutions, suppliers, subcontractors, and/or other parties participating in the performance of this contract or the work of this project?

X. State the approximate number of personnel (by trade) needed to perform the joint venture's work under this contract. Indicate whether they will be employees of the majority firm, DBE firm, or the joint venture.

If any personnel proposed for this project will be employees of the joint venture:

A. Are any proposed joint venture employees currently employed by either venturer? _____

Employed by non-DBE (number): _____ Employed by DBE: _____

B. Identify by name and firm the individual who will be responsible for joint venture hiring: _____

XI. Please state any material facts and additional information pertinent to the control and structure of this joint venture.

Diversity & Small Business Compliance Programs/DBE Schedules B, C, and D (Revised 7/27/06)

84693-1

Schedule B
AFFIDAVIT OF DBE/NON-DBE JOINT VENTURE

The undersigned affirm that the foregoing statements are correct and include all material information necessary to identify and explain the terms and operations of our joint venture and the intended participation of each venturer in the undertaking. Further, the undersigned covenant and agree, under which work is done for CTA by the venturers, to provide to CTA current, complete and accurate information regarding actual joint venture work and the payment therefor, and any proposed changes to any provision of the joint venture, or those of each venturer relevant to the joint venture by authorized representatives of CTA, its Inspector General or any of its funding agencies.

Any misrepresentation regarding the status of a person or an entity in order to qualify for DBE status may result in conviction for a Class 2 felony, including a penalty for one and a half times the value of the contract. Material misrepresentation on any matter will also be grounds for terminating any contract which may be awarded, and for initiating action under federal or state laws concerning false statements.

NOTE: *If, after filing this Schedule B and before the completion of the joint venture's work on the project, there is any change in the information submitted, the joint venture must inform the General Manager, DBE Program directly in writing or through the prime contractor if the joint venture is a subcontractor.*

Name of DBE Partner Firm

Name of Non-DBE Partner Firm

Signature of Affiant

Signature of Affiant

Name and Title of Affiant (Type or Print)

Name and Title of Affiant (Type or Print)

Date

Date

On this _____ day of _____, 20____, the above-signed Officers of

(Name of Joint Venture)

personally known to me as the persons described in the foregoing Affidavit, acknowledged that they executed the same in the capacity therein stated and for the purpose therein contained.

IN WITNESS OF, I hereunto set my hand and official seal.

Signature of Notary Public

My Commission Expires: _____

SEAL

Bidder's or Proposer's failure to submit both pages of this form with its bid will result in the bid being rejected in its entirety

Job Order No.: _____

To: _____ and the Chicago Transit Authority
(Name of Prime Contractor)

The undersigned is prepared to provide the following described services or supply the following described goods in connection with the above named project/contract:

[illegible]

Sub (or Grand) Total: \$ _____

Page 6 of 9

**Schedule C:
LETTER OF INTENT FROM DBE**

Sub-Contracting Levels

%_____ of the dollar amount of the DBE's subcontract will be sublet to non-DBE contractors.

%_____ of the dollar amount of the DBE's subcontract will be sublet to DBE contractors.

NOTICE: IF THE DBE WILL NOT BE SUB-SUBCONTRACTING ANY OF THE WORK DESCRIBED IN THIS SCHEDULE, A ZERO (0) MUST BE SHOWN IN EACH BLANK ABOVE.

NOTICE: IF MORE THAN THIRTY PERCENT (30%) OF THE DOLLAR AMOUNT OF THE DBE's SCOPE OF WORK WILL BE SUBLET, A BRIEF EXPLANATION AND DESCRIPTION OF THE WORK TO BE SUBLET MUST BE ATTACHED TO THIS SCHEDULE.

NOTICE: Any misrepresentation regarding the status of a person or an entity in order to qualify for DBE status may result in conviction for a Class 2 felony, including a penalty for one and a half times the value of the contract. Material misrepresentation on any matter will also be grounds for terminating any contract which may be awarded, and for initiating action under federal or state laws concerning false statements.

The undersigned will enter into a formal written agreement for the above work with you as Prime Contractor, conditioned upon your execution of a contract with the Chicago Transit Authority, and will do so within (5) five calendar days of your receipt of a signed contract from the Chicago Transit Authority.

(Signature of Owner, President or Authorized Agent of DBE)

Name/Title (Print)

Date

Phone

If proposing to perform as a DBE/non-DBE Joint Venture:

(Signature of Owner, President or Authorized Agent of non-DBE)

Name/Title (Print)

Date

Phone

On this _____ day of _____, 20____, the above-signed Officer

(Name of DBE company)

personally known to me as the persons described in the foregoing Affidavit, acknowledged that h/she executed the same in the capacity therein stated and for the purpose therein contained.

IN WITNESS OF, I hereunto set my hand and official seal.

Signature of Notary Public

My Commission Expires: _____

SEAL

**Schedule D:
AFFIDAVIT OF PRIME CONTRACTOR**

I hereby acknowledge that I have been advised of the following: Any misrepresentation regarding the status of a person or an entity in order to qualify for DBE status may result in conviction for a Class 2 felony, including a penalty for one and a half times the value of the contract. Material misrepresentation on any matter will also be grounds for terminating any contract which may be awarded, and for initiating action under federal or state laws concerning false statements.

To the best of my knowledge, information and belief, the facts and representations contained in the aforementioned attached Schedules are true and no material facts have been omitted.

The undersigned will enter into formal agreements with all listed DBE firms for work as indicated by this Schedule D and accompanying Schedules, and will enter into such agreements within five (5) calendar days after receipt of the contract executed by the Chicago Transit Authority. In the event the Prime Contractor cannot meet said five (5) day schedule, it must provide a written explanation for the delay and an estimate date by which the written agreement will be completed.

The Prime Contractor designated the following person as their DBE Liaison Officer:

(Name - Please Print or Type)

(Phone)

I do solemnly declare and affirm under penalty of perjury that the contents of the foregoing document are true and correct, and that I am authorized on behalf of the Prime Contractor to make this affidavit.

(Name of Prime Contractor – Print or Type)

(Signature)

(Name and Title of Affiant – Print or Type)

(Date)

On this _____ day of _____, 20____, the

(Title of Affiant)

(Name of Company)

personally known to me as the person described in the foregoing Affidavit, acknowledged that he/she executed the same in the capacity therein stated and for the purpose therein contained.

IN WITNESS OF, I hereunto set my hand and official seal.

Signature of Notary Public

My Commission Expires: _____

SEAL

NAME OF PRIME BIDDER**BIDDERS LIST****BID NO.** _____**DATE:** _____**JOB ORDER NO.** _____**BID DUE DATE:** _____**BUS. PHONE NO.** _____**ADDRESS:** _____**CITY:** _____**STATE:** _____**CONTACT PERSON:** _____

As the prime bidder, listed below is the information about (Name of Firm) _____
that is requested by the Authority.

Also, included on the following list are all firms who responded to a solicitation by submitting a bid or quote as a subcontractor. Furthermore, included on the list are all firms who submitted a bid or quote on their own. Under gross receipt column list range using the following: **Under \$500,000, \$500,000-\$1,000,000, \$1,000,000-\$2,000,000, \$2,000,000-\$2,500,000, \$2,500,000-\$3,000,000, \$3,000,000-\$3,500,000, \$3,500,000-\$4,000,000, over \$4,000,000.**

FIRM NAME	FIRM ADDRESS	DBE OR NON-DBE	AGE OF FIRM	GROSS RECEIPT RANGE

STANDARD GOVERNMENT REQUIREMENTS FOR MATERIAL AND EQUIPMENT PURCHASES

This contract is subject to financial assistance contracts between the U.S. Department of Transportation (DOT), Federal Transit Administration (FTA), the State of Illinois Department of Transportation (IDOT), Division of Public Transportation (DPT), and the Chicago Transit Authority (CTA).

The following clauses shall be included as part of the specification for the proposed contract and for each of its related subcontracts.

- A. **CONTRACT CHANGES.** "Any proposed change in this contract shall be submitted to the Chicago Transit Authority for its prior written approval."
- B. **INTEREST OF MEMBERS OF CONGRESS.** No members of, or delegate to, the Illinois General Assembly or the Congress of the United States shall be admitted to any share or part of this contract or to any benefit arising therefrom.
- C. **PROHIBITED INTERESTS.** "No member, or officer, or employee of Chicago Transit Authority or a local public body with financial interest or control in this contract during his tenure or for one year thereafter shall have any interest, direct or indirect, in this contract or the proceeds thereof."
- D. **INELIGIBLE CONTRACTORS.** Contractors are required to certify that they ARE NOT included on the U.S. Comptroller General's Consolidated List of persons or firms currently debarred for violations of various Public Contracts incorporating labor standards provisions.
- E. **NONDISCRIMINATION.** "In connection with the execution of this contract, the contractor shall not discriminate against any employee or applicant for employment because of race, religion, color, sex, national origin, ancestry or handicap. The contractor shall take affirmative actions to insure that applicants are employed and that employees are treated during their employment, without regard to their race, religion, color, sex, national origin, ancestry or handicap. Such actions 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 of training, including apprenticeship."
- F. **ILLINOIS HUMAN RIGHTS ACT - Equal Employment Opportunity.** During the performance of this contract, the contractor agrees as follows.
 - 1. That it will not discriminate against any employee or applicant for employment because of race, color, religion, sex, marital status, national origin or ancestry, age, physical or mental handicap unrelated to ability, or an unfavorable discharge from military service; and further that it will examine all job classifications to determine if minority persons or women are under utilized and will take appropriate affirmative action to rectify any such underutilization.
 - 2. That it will submit reports as required by the Department's Rules and Regulations, furnish all relevant information as may from time to time be requested by the Department or the contracting agency, and in all respects comply with the Illinois Human Rights Act and the Department's Rules and Regulations.
 - 3. That it will permit access to all relevant books, records, accounts and work sites by personnel of the contracting agency and the Department for purposes of investigation to ascertain compliance with the Illinois Human Rights Act and the Department's Rules and Regulations.
 - 4. That it will include verbatim or by reference the provisions of this clause in every subcontract it awards under which any portion of the contract obligations are undertaken or assumed, so that such provisions will be binding upon such subcontractor. In the same manner as with other provisions of this contract, the contractor will be liable for compliance with applicable provisions of this clause by such subcontractors; and further it will promptly notify the contracting agency and the Department in the event any subcontractor fails or refuses to comply therewith. In addition, the contractor will not utilize any subcontractor declared by the Illinois Human Rights Commission to be ineligible for contracts or subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations."
- G. **ENVIRONMENTAL AND ENERGY PROTECTION AND CONSERVATION REQUIREMENTS.** All facilities and equipment will meet the criteria for air and water pollution control and energy conservation as follows:

"All facilities and equipment acquired, constructed, reconstructed, or improved using FTA and DPT grant funds, shall be designed and equipped to prevent or control air and water pollution in accordance with criteria issued by the Department of Health, Education and Welfare. However, in those locations where State or local air and water pollution regulations are in force, the more restrictive criteria shall govern."

"All contractors and suppliers must submit evidence to CTA that the governing air and water pollution criteria will be met. This evidence and related documents will be retained by the sponsor for on site examination by FTA and DPT representatives."

"All contractors and suppliers shall recognize mandatory standards and policies relating to energy efficiency which are contained in the State energy conservation plan issued in compliance with the Energy Policy and Conservation Act (42 U.S.C. § 6321 et seq.)."

H. SPECIFIC MATERIALS AND/ OR SPECIFIC EQUIPMENT. Wherever in these Specification an article, equipment or material is defined by describing a proprietary product or by using the name of a manufacturer or vendor or trade name including catalogue numbers and/ or part numbers and/ or drawing numbers, the term "or equal" if not inserted shall be implied. The specific article, equipment or material mentioned shall be understood as establishing the type, function and minimum standard of design, efficiency, quality and performance desired and shall not be construed in such a manner as to exclude manufacturer's products or comparable design, efficiency, quality and performance. CTA engineers shall decide whether or not the article, equipment or material proposed by the bidder or contractor is equal to that specified in the Specification.

I. TERMINATION OF CONTRACT. Chicago Transit Authority reserves the right to terminate this contract at any time after date of contract, with or without cause, by giving the contractor, in writing, a notice of termination. The notice shall be mailed certified to the contractor at his business address, and the effective date of termination shall be the date of receipt of the notice as shown on the certified mail return receipt. The Chicago Transit Authority shall pay the contractor for the sums then due for acceptable services performed in accordance with this contract and costs incurred in connection therewith up to the termination date.

J. CARGO PREFERENCE - USE OF UNITED STATES-FLAG VESSELS. The contractor agrees:

1. To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, materials or commodities pursuant to this Contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels.
2. To furnish within 20 days following the date of loading for shipments originating within the United States, or within 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 (1) above to the Grantee (through the prime contractor in the case of subcontractor bill-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, 400 Seventh Street, S.W., Washington, D.C. 20590, marked with appropriate identification of the Project.

K. PATENT RIGHTS

1. Contractors may reserve a revocable, nonexclusive, royalty-free license in each patent application filed in any country or each invention subject to this clause and resulting patent in which the government acquires title. The license shall extend to the third-party contractor's domestic subsidiaries and affiliates, if any, within the corporate structure of which the third-party contractor is a part and shall include the right to grant sublicenses of the same scope to the extent the third-party contractor was legally obligated to do so at the time the contract was awarded. The license shall be transferable only with approval of FTA except when transferred to the successor of that part of the third party contractor's business to which the invention pertains.
2. The third-party contractor's nonexclusive domestic license retained pursuant to paragraph (1) of this clause may be revoked or modified by FTA to the extent necessary to achieve expeditious practical application of the subject invention under 41 C.F.R. 101-4. 103-3 pursuant to an application for exclusive license submitted in accordance with 41 C.F.R. 101-4. 104-3. This license shall not be revoked in that field of use and/or the geographical areas in which the third-party contractor has brought the invention to the point of practical application and continues to make the benefits of the invention reasonably accessible to the public. The third-party contractor's nonexclusive license in any foreign country reserved pursuant to paragraph (1) of this clause may be revoked or modified at the discretion of FTA to the extent the third-party contractor or his domestic subsidiaries or affiliates have failed to achieve the practical application of the invention in that foreign country.
3. Before modification or revocation of the license, pursuant to paragraph (2) of this clause, FTA shall furnish the third-party contractor a written notice of its intention to modify or revoke the license and the third-party contractor shall be allowed 30 days (or such longer period as may be authorized by FTA for good cause shown in writing by the third-party contractor) after the notice to show cause why the license should not be modified or revoked. The third-party contractor shall have the right to appeal, in accordance with procedures prescribed by FTA any decision concerning the modification or revocation of his license.

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL TRANSIT ADMINISTRATION REQUIREMENTS

In addition to the Standard Government Requirements for Material and Equipment Purchases, the Contractor is also required to comply with the following clauses required by the U.S. Department of Transportation Federal Transit Administration as applicable.

1. **Seismic Safety Requirements** – The Contractor agrees that any new building or addition to an existing building will be designed and constructed in accordance with the standards for Seismic Safety required in Department of Transportation Seismic Safety Regulations 49 CFR Part 41 and will certify to compliance to the extent required by regulation. The Contractor also agrees to ensure that all work performed under this contract including work performed by a subcontractor is in compliance with the standards required by the Seismic Safety Regulations and the certification of compliance issued on the project.
2. **Recycled Products** – 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 CFR Part 247, and Executive Order 12873, as they apply to the procurement of the items designated in Subpart B of 40 CFR Part 247.
3. **No Obligation by the Federal Government** – The Contractor acknowledges and agrees that, notwithstanding any concurrence by the Federal Government in or approval of the solicitation or award of the underlying contract, absent the express written consent by the Federal Government, the Federal Government is not a party to this contract and shall not be subject to any obligations or liabilities to the Contractor, or any other party pertaining to any matter resulting from the underlying contract.
4. **Privacy Act** – The following requirements apply to a 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 assure the compliance of its employees with, the information restrictions and other applicable requirements of the Privacy Act of 1974, 5 USC subsection 552a. 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 the 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 to administer any system of records on behalf of the Federal Government financed in whole or in part with FTA funding.
5. **Access to Records and Reports** – The following access to records requirement apply to this Contract.
 - A) The Contractor agrees to provide the Authority, the FTA Administrator, the Comptroller General of the United States or any other authorized representatives access to any books, documents, papers and records of the Contractor which are directly pertinent to this Contract for the purposes of making audits, examination, excerpts and transcriptions. Contractor also agrees, pursuant to 49C.F.R. 633.17 to provide the FTA Administrator or his authorized representatives access to Contractor's records and construction sites pertaining to a major capital project, defined at 49U.S.C. 5302(a)1, which is receiving federal financial assistance through the programs described at 49U.S.C. 5307, 5309, or 5311. By definition, a major capital project excludes contracts of less than the simplified acquisition threshold currently set at \$100,000.
 - B) For any contract for a capital project or improvement entered into which was not the result of competitive bidding, the Contractor shall make available records related to the Contract to the Authority, the FTA and the Comptroller General or any authorized officer or employee of any of them for the purposes of conducting an audit and inspection.
 - C) The Contractor agrees to permit the authorized representatives to reproduce by any means whatsoever or to copy excerpts and transcriptions as reasonable needed.

D) The Contractor agrees to maintain all books, records, accounts and reports required under this contract, except in the event of litigation or settlement of claims arising from the performance of this contract, in which case Contractor agrees to maintain same under the Authority, the FTA Administrator, the Comptroller General, or any of their duly authorized representatives, have disposed of all such litigation, appeals, claims or exceptions related thereto.

6. **Fraud and False or Fraudulent Statements or Related Acts** – The Contractor acknowledges that the provisions of the Program Fraud Civil Remedies Act of 1986, as amended, 31 U.S.C. subsection 3801 et seq and U.S. Department of Transportation and FTA regulations, "Program Fraud Civil Remedies", 49 C.F.R. Part 31, apply to its actions pertaining to this Contract.

By submitting a proposal and execution of the Contract, the Contractor certifies or affirms the truthfulness and accuracy of any statement it has made, it may make, or causes to be made, pertaining to the Contract Documents. 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. The Contractor also acknowledges that 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. subsection 5307, the Government reserves the right to impose the penalties of 18 U.S.C. subsection 5307, the Government reserves the right to impose the penalties of 18 U.S.C. subsection 1001 and 49 U.S.C. subsection 5307(n)(1) on the Contractor, to the extent the Federal Government deems appropriate. The Contractor agrees to include the above language in each subcontract without modification, except to identify the subcontractor who will be subject to the provisions.

7. **Incorporation of Federal Transit Administration (FTA) Terms** – The preceding provisions include, in part, certain Standard Terms and Conditions required by DOT, whether or not expressly set forth in the preceding contract provisions. All contractual provisions required by DOT, as set forth in the latest revision of FTA Circular 4220.1 are hereby incorporated by reference. Anything to the contrary herein notwithstanding, all FTA mandated terms shall be deemed to control in the event of a conflict with other provisions contained in this Agreement. The Contractor shall not perform any act, fail to perform any act, or refuse to comply with any Authority requests which would cause the Authority to be in violation of the FTA terms and conditions.
8. **Clean Air** – (1) 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 et seq.). The Contractor agrees to report each violation to the Purchaser and understands and agrees that the Purchaser will, in turn, report each violation as required to assure notification to FTA and the appropriate EPA Regional Office. (2) The Contractor also agrees to include these requirements in each subcontract exceeding \$100,000 financed in whole or in part with Federal assistance provided by FTA
9. **Federal Changes** – 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 (4) dated October 1, 1997) between Purchaser and FTA, as they may be amended or promulgated from time to time during the term of this contract. Contractor's failure to so comply shall constitute a material breach of this contract.

BID PROTEST PROCEDURES

SECTION I – AUTHORITY BID PROTEST PROCEDURE

- A. The Chicago Transit Authority (CTA/ Authority)** will hear and consider a bona fide bid protest regarding its procurement actions. It is anticipated that the majority of protests will be evaluated and finally decided by the Authority. Accordingly, the Authority intends to provide a thorough review of all bona fide bid protests. The Authority's primary concern, however, is the timely procurement of needed capital equipment, supplies or services. It does not intend to allow the filing of bid protests to unnecessarily delay the procurement process, especially if the protest involved is vexatious or frivolous in nature.

Notwithstanding the availability of these protest procedures, any interested party is encouraged to exhaust all methods described in the Contract Documents of resolving a procurement issue before filing a formal protest with the Authority. In its consideration of a bid protest, the Authority reserves the right to give due consideration to the good faith efforts of the protestor to resolve the issue involved through informal methods.

Note – The Federal Transit Administration (FTA) will be notified by the Authority of all formal, written protests, when FTA funds are involved.

B. Definitions for purposes of this section -

1. The term "days" refers to working days of the Authority.
2. The term "interested party" means any person (a) who is an actual bidder or prospective bidder in the procurement involved, and (b) whose direct economic interest would be affected by the award of the contract or by a failure to award the contract.

C. Submission of Protest

Any interested party may file a bid protest with the Authority on the basis that the Authority has failed to comply with applicable Federal or State law or with the Authority's Procurement Regulations. The protest must be filed in accordance with the timing requirements set forth in subsection D. "*Types of Protests and Timing*" of this section, and must include:

1. The name and address of the protestor.
2. The number of the contract solicitation.
3. A statement of the grounds for the protest, and in particular the Federal or State law or Authority Regulation alleged to have been violated. This statement should be accompanied by any supporting documentation the protesting party desires the Authority to consider in making its decision.

Protest should be submitted to:

**General Manager Purchasing
Chicago Transit Authority
567 W. Lake Street
Chicago, IL 60661-1498**

D. Types of Protests and Timing

The requirement for timely filing of a bid protest with the Authority will depend upon the type of protests involved. The Authority will consider the following three types of protest by interested parties:

1. Protest regarding solicitation

Any bid protest regarding the solicitation by the Authority must be filed **no later than five (5) days before the opening of bids**. Any protest filed after that date which raises issues regarding the solicitation will not be considered by the Authority.

This type of protest would include any claim that the bid solicitation contained exclusionary or discriminatory specifications, any challenge to the basis of award, or any claim that the solicitation documents or the solicitation process violated applicable Federal or State law, or that the Authority failed to follow its Procurement Regulations in the solicitation of bids.

2. Protests regarding bid evaluation

Any bid protest regarding the evaluation of bids by the Authority must be filed with the Authority no later than twenty (20) days after the opening of bids. Any protest filed after such date which raises issues regarding the bid evaluation will not be considered by the Authority.

This type of protest would include any challenge to determinations by the Authority of the responsiveness of a bid or the responsibility of a bidder, or any claim that the evaluation of bids violated federal or State law or the Authority's Procurement Regulations.

3. Protests Regarding Award of Contract

Any protest regarding the award of the contract must be filed no later than ten (10) days after the date of award. Any protest regarding the award of the contract filed after that date will not be considered by the Authority.

This type of protest will only be entertained by the Authority if the protestor is able to demonstrate that the party awarded the contract fraudulently represented itself as a responsible bidder or that the Authority violated Federal or State law or its Procurement Regulations in the award of the contract.

E. Authority Response

1. Types of Protests

The Authority will notify the protestor upon timely receipt of a bid protest and may, where appropriate, request additional information from the protestor. The Authority may, at its discretion, meet with the protestor to review the matters raised by the protest. The Authority's consideration of the particular types of protests will, except as otherwise provided in subsection 2. "Decisions by Authority" of this section, be in accordance with the following provisions:

a. Protest regarding solicitation

Upon receipt of a timely filed protest regarding the solicitation, the Authority will postpone the opening of bids until resolution of the protest. No additional bids will be accepted during the period of postponement.

If the protest regarding the solicitation involves a claim of unduly restrictive or exclusionary specifications, the Authority will, in evaluation of the protest, consider both the specific need of the Authority for the feature or item challenged and any effects on competition of including the specification regarding that feature or item. If the Authority determines that such feature or item was included in the specification in order to meet justified and valid transit needs of the Authority, and was not unduly restrictive of competition or designed to exclude a particular competitor, then the Authority will have grounds to deny the protest.

b. Protests regarding bid evaluation

Upon receipt of a timely filed protest regarding the evaluation of bids, the Authority will suspend its evaluation of all bids submitted until resolution of the protest if the Authority determines that the protestor has established that there are reasonable doubts regarding the responsiveness of a bid or the responsibility of a bidder or regarding the Authority's compliance with Federal or State law or its Procurement Regulations.

c. Protests after award

Upon receipt of a timely filed protest regarding the award of a contract, the Authority will issue a stop work order, if necessary, until the resolution of the protest if the Authority determines that the protestor has established a prima facie case that the contract was awarded fraudulently or in violation of that Federal or State law or the Authority's Procurement Regulations.

2. Decisions by Authority

As indicated above, in most instances the Authority will suspend the procurement process upon receipt of a bona fide bid protest. However, the Authority reserves the right, notwithstanding the pendency of a protest, to proceed with the appropriate action in the procurement process or under the contract in the following cases:

- a. where the item to be procured is urgently required;
- b. where the Authority determines that the protest was vexatious or frivolous; and
- c. where delivery or performance will be unduly delayed, or other undue harm will occur, by failure to make the award promptly.

After review of a bid protest submitted under this section, the Authority will issue a written decision of the basis of the information provided by the protestor, the results of any meetings with the protestor, and the Authority's own investigation. If the protest is upheld, the Authority will take appropriate action to correct the procurement process and protect the rights of the protestor, including resolicitation of bids, revised evaluation of bids or Authority determinations, or termination of the contract. If the protest is denied, the Authority will lift any suspension imposed and proceed with the procurement process or the contract, as the case may be.

The availability of review of bid protest by FTA is described in Section II. As noted in that section, under FTA's revised procurement guidelines the role of the Federal government in bid protest review is quite limited.

SECTION II – FTA BID PROTEST PROCEDURE

Reviews of protests by FTA will be limited to claims that the CTA failed to have or follow protest procedures, or claims that CTA failed to review a complaint or protest. A protestor must exhaust all administrative remedies with the CTA before pursuing a protest with FTA. An appeal to FTA must be received by the cognizant FTA regional or Headquarters Office within five (5) working days of the date the protestor knew or should have known of the violation.

Violations of Federal law or regulation will be handled by the complaint process stated within that law or regulation. Violations of State or local law or regulations will be under the jurisdiction of State or local authorities.

SPECIAL CONDITIONS

SPECIFICATION NO. (As Indicated) CONTRACT NO. B11OP03602

ELECTRONIC FUND TRANSFER

CTA has adopted Electronic Fund Transfer (EFT) as the preferred method of payment for vendor invoices. An EFT enrollment form will be provided to the successful bidder with the executed contract and must be completed to enable payment of vendor accounts by this method. If awarded a contract, provide the completed EFT form to the CTA Purchasing Administrator identified on the title page.

INSURANCE

None required.

PERFORMANCE/PAYMENT BOND

None required.

GENERAL

This is a multiple award modified annual contract designed to be more cost effective in the purchase of those commodities which are difficult to quote firm pricing for extended periods of time and for those commodities that would warrant a "price break" dependent on the quantity ordered. It combines the convenience of an annual contract with the pricing advantages of a definite quantity - definite delivery procurement. It requires bidders to provide firm pricing for the items listed on the proposal pages for an initial period of 90 days; and, thereafter to competitively bid definite quantity - definite delivery solicitations, as required by the CTA, until the 36 month expiration of the contract. See BIDDING, BID EVALUATION AND CONTRACT AWARDS on page SC-2 for additional details.

DELIVERY

Deliveries shall be FOB, freight included destination as indicated on individual releases and shall be complete within the time listed under "Availability" on the proposal pages. These delivery times shall be in effect for the initial 90 day period. Specific delivery times will be stated on each bid solicitation for the remaining period of the contract. Deliveries shall be made to CTA Central Distribution Center, 901 W. Division St., Chicago, IL 60622 or to the CTA location designated on each release. Deliveries are to be made weekdays, except holidays, between the hours of 7:00 AM and 3:30 PM.

DURATION OF CONTRACT

This Contract shall become effective for a period of thirty-six (36) months from the date the Contract is executed.

ESTIMATED EXPENDITURE

Based upon past material usage, CTA anticipates an expenditure of \$800,000.00 under this Contract. This figure is provided for information only and may vary depending upon pricing received and numbers of cable products released on the Contract. The lot number of each kind of cable and the quantity required shall be stipulated on individual releases issued over the duration of the Contract.

SPECIAL CONDITIONS

SPECIFICATION NO. (As Indicated)

CONTRACT NO. B11OP03602

BIDDING, BID EVALUATION AND CONTRACT AWARDS

The bidder shall quote a minimum of 55 of the 60 items listed on the proposal pages P-2 through P-11. The bidder is to state the name of the manufacturer whose product is proposed, manufacturer's part number, unit price per foot and availability (lead time). The bidder will also state the name of the firm, address, contact person, e-mail address and telephone number of the company placing the bid. Bidder will state the cash billing discount, if any, to the terms of payment. Bid pricing, (including manufacturer, manufacturer's part number, unit price per foot and availability (lead time), as stated on the proposal pages shall be firm for 90 days after the contract execution date. The terms of payment shall be for the 36 month duration of the contract. The bidder shall submit with his proposal, literature as may be required to clarify the bid. Bid price shall include all applicable charges and represent the delivered price.

Bids will be initially evaluated by the unit prices quoted for each item as listed on the proposal pages. **These unit prices will be used to determine and make multiple awards to the lowest responsive and responsible bidders who quoted a minimum of 55 of the 60 items listed on the proposal pages P-2 through P-11.** The awards will be for the 36 month duration of the contract, however, only the lowest bidder(s)/contractor(s) (see "Note" below) will be eligible to receive releases for the first 90 days after contract execution. Material will be released as required.

After the initial 90 day period all contractor/bidders who were awarded a contract will be required to provide a quote on a definite quantity of cable as required by the CTA. A solicitation listing the items and quantities required will be e-mailed to the contract/bidders by the procurement administrator listed on the title page of this document. The contractor/bidders must return his quote to the procurement administrator via e-mail on or before the stipulated bid due date, as directed in the solicitation. Bids will be evaluated and award(s) made based on the unit price, minimum quantity and delivery. Release(s) will then be made to the lowest bidder(s) for each item requested. This procedure will continue until the 36 month expiration date of the contract.

Note: In order to take advantage of the best pricing offered, the CTA reserves the right to award by item, items or Lump Sum, and to split the requirement into multiple awards for the aforementioned initial 90 day award period. It is therefore possible that more than one contractor/bidder will be declared low bidder (based on the pricing per item) and will be eligible to receive releases within the first 90 days after execution of the contract. After the initial 90 day award period (in order to take advantage of the pricing associated with a definite quantity – definite delivery type order) an award by item will be made to the low bidder based on the solicited quantities and quoted pricing. In either case the CTA reserves the right to reject all pricing and not make an award for any and/or all items.

DELIVERY: RELEASE NOTICE

Periodic Release Notices will be issued against the Contract which will be the Contractor's authority to ship. Contractor is not to ship material without first receiving a release from CTA.

SPECIAL CONDITIONS

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CTA's primary method of issuing releases will be via e-mail. No paper release(s) will be generated. The Contractor is to provide a dedicated e-mail address on the proposal page, P-1 for receipt of the release(s). The Contractor is to confirm receipt of release(s) to PurchasingDepartment@transitchicago.com.

PAYMENT

The Contractor shall submit an invoice for each release of acceptable and approved material delivered. Invoices will be paid subsequent to formal acceptance of material by CTA. Original invoices shall be forwarded to CTA Accounts Payable Department, 567 W. Lake St., Chicago, Illinois 60661-1498. Payments will be made in Net 30 days after final acceptance of material or receipt of Contractor's invoice by CTA or in accordance with the terms of Contractor's invoice whichever is most favorable to the Authority. Payment date(s) shall be calculated from receipt of invoice or final acceptance of goods, whichever is later.

Invoices must be presented only by the vendor to which a purchase order is awarded. Invoices received from a third party will not be honored unless prior written approval from the purchasing agent has been obtained.

COMPLIANCE WITH LAWS, REGULATIONS AND CODES

If any part of this Specification shall be at date of issue, or shall later become in non-conformity with current or future City, County, State or Federal Laws and/or Codes or Regulations, because of materials or requirements specified therein, Chicago Transit Authority shall have the right to negotiate for and accept or reject substitute materials and/or requirements.

PACKAGING AND MARKING

The material shall be packaged according to industry standards to ensure its arrival is undamaged. All material shall be marked with the manufacturer's name, the trade name of the item, the quantity contained therein and with CTA's contract number.

TERMINATION FOR CONVENIENCE

The CTA may terminate this Agreement, in whole or in part, without cause, at any time, by written notice to the Contractor whenever the CTA determines that such termination is in the best interest of the CTA. Upon receipt of written notice of termination, all services and any other performance hereunder by the Contractor shall cease to the extent specified in the notice of termination. In the event of termination in whole, the Contractor shall prepare a final invoice within thirty (30) days of such termination reflecting the services actually furnished pursuant to this agreement to the satisfaction of the CTA and for which no previous invoice was submitted to the CTA. The Contractor shall be paid costs, including closeout costs, and profit for the services performed up to the time of termination. The Contractor shall promptly submit, in accordance with the terms hereof, a termination claim to the Authority and the parties shall negotiate a termination settlement to be paid the Contractor. If the Contractor has any property in his possession belonging to the CTA, the Contractor will account for same, and dispose of it in the manner the Authority directs.

SPECIAL CONDITIONS

SPECIFICATION NO. (As Indicated) CONTRACT NO. B11OP03602

WARRANTY

Material furnished shall be covered by the manufacturer's Standard Warranty

INSPECTION

Sampling and Inspection for Acceptance: The CTA reserves the right to test and inspect all material delivered and reserves the right to reject material which does not comply with the specifications in particular and reject material to the Contractor. The rejected material will be replaced by the Contractor with acceptable material within a time limit mutually agreed upon by the CTA and the Contractor at no additional charges to the CTA. The Contractor shall assume all associated costs on rejected material.

APPROVED MATERIAL

Only materials approved by the CTA shall be used on this contract. Potential Contractors who wish to have non-approved products considered for this contract, may be requested by the Procurement Administrator, whose name is listed on the front page of the Contract Document, to submit samples, literature and technical specifications as required. The CTA reserves the right to request, test and evaluate documentation and samples of proposed products without cost or obligation. The Contractor will have ten (10) days from the date of request to supply the requested samples, literature or technical specifications. Failure to supply the items requested within the ten (10) day period may cause the bid to be found non-responsive. Approval of product(s) does not guarantee an order under the proposed contract.

ALTERNATE SOURCING – CONTRACTOR PERFORMANCE

The CTA reserves the right to obtain the required material from an alternate source should the contractor fail to provide the materials as specified and/or fail to deliver the materials within the stated delivery time. Contractors who fail to perform in accordance with the terms of this contract and to the satisfaction of the CTA will be subject to default proceedings as provided for in these documents and/or be removed from any future bid solicitations for the duration of this contract.

ADDITIONS TO CONTRACT

Cable items that are not listed in the proposal section of this document may be added to the contract by their inclusion in any future definite quantity – definite delivery solicitation.

CTA ETHICS ORDINANCE

The Contractor agrees to comply with the CTA Code of Ethics, CTA Ordinance No. 004-99, as amended from time to time, the provisions of which are hereby incorporated into this Agreement. The Contractor further agrees that any contract negotiated, entered into or performed in violation of the Code of Ethics shall be voidable as to the CTA

SPECIAL CONDITIONS

SPECIFICATION NO. (As Indicated) CONTRACT NO. B11OP03602

PROMPT PAYMENT TO SUBCONTRACTORS

- A) The Contractor is required to pay all Subcontractors for all work that the Subcontractor has satisfactorily completed, no later than 7 calendar days after the Contractor has received payment from CTA. All of the Contractor's contracts with its Subcontractors must state that the Subcontractor will receive payment within 7 calendar days of the date that the Contractor has received payment from CTA.
- B) In addition, all Retainage amounts must be paid by the Contractor to the Subcontractor no later than 14 calendar days after the Subcontractor has, in the opinion of the Chief Infrastructure Officer, satisfactorily completed its portion of the Work. All of the Contractor's contracts with its Subcontractors must state that the Subcontractor will receive payment of Retainage within 14 calendar days of the date that the Subcontractor has, in the opinion of the Chief Infrastructure Officer, satisfactorily completed its portion of the Work.
- C) A delay in or postponement of payment to the Subcontractor requires good cause and prior written approval of the General Manager, Purchasing.
- D) The Contractor is required to include, in each subcontract, a clause requiring the use of appropriate arbitration mechanisms to resolve all payment disputes.
- E) CTA will not pay the Contractor for work performed unless and until the Contractor ensures that the Subcontractors have been promptly paid for the work they have performed under all previous payment requests, as evidenced by the filing with CTA of lien waivers, canceled checks (if requested), and the Contractor's sworn statement that it has complied with the prompt payment requirements. Prime Contractors must submit a prompt payment affidavit, (form to be provided by CTA) which identifies each subcontractor (both DBE and non-DBE) and the date and amount of the last payment to such subcontractor, with every payment request filed with CTA, except for the first payment request, on every contract with CTA.
- F) Failure to comply with these prompt payment requirements is a breach of the Contract which may lead to any remedies permitted under law, including, but not limited to, Contractor debarment. In addition, Contractor's failure to promptly pay its Subcontractors is subject to the provisions of 50 ILCS 505/9.

ACCOUNTING SERVICES

The Contract issued to the successful Bidder will state the total expenditure authorization on the signed acceptance page. Contractor shall notify the Authority in writing when ninety (90) percent of the total authorization has been expended. Contractor shall not accept any requests for services in excess of the total Contract expenditure authorization unless authorized in writing by the General Manager, Purchasing. Contractor shall be liable for any costs incurred as a result of his failure to either notify the CTA or accept requests not authorized by the General Manager, Purchasing.

SPECIAL CONDITIONS

**SPECIFICATION NO. (As Indicated)
CONTRACT NO. B11OP03602**

ACCESS TO RECORDS AND REPORTS

The Contractor shall permit and agree to cooperate with the authorized representatives of the CTA, including but not limited to, the CTA's Inspector General and auditors, who may inspect and audit all data and records of the Contractor relating to the Contractor's performance and Subcontractor contracts under this Contract from the date of this Contract through and until the expiration of five (5) years after completion of this Contract.

INQUIRIES

Refer all inquiries about this procurement to J. Reinitz, Procurement Administrator, telephone (312) 681-2472. E-mail: jreinitz@transitchicago.com

CHICAGO TRANSIT AUTHORITY
DETAIL SPECIFICATION
FOR
VITAL CIRCUIT SIGNAL WIRE AND CABLE
SPECIFICATION NO. CTA 497-06 (R11)

1. SCOPE

- 1.1 This specification covers single and multi-conductor insulated and jacketed wire and cable for continuous operation in wet and dry locations, whether installed directly in the ground, in conduits or ducts, aerial or in trays, or any combination of these types of installations on vital signal circuits rated at 1000 volts.

2. PURCHASE ORDER INFORMATION

- 2.1 The following information will be stated in the Contract Documents or Request For Quotation for each kind of cable to be furnished.
- Total length in feet.
 - Number of conductors.
 - Gauge of conductors by AWG.
 - Strand count of conductors.
 - Minimum length of cable on each reel.
 - Special constructions requirements (i.e.: armored, flexible, pre-assembled, aerial, shielding from inductive interference, etc).

3. MATERIAL AND WORKMANSHIP

- 3.1 Material and workmanship of cable furnished shall be of the highest quality, assuring durability for the life of the installation.
- 3.2 The contractor or manufacturer offering a proposal shall be capable of meeting all the qualification requirements specified in Section 10 of this specification.

4. CONDUCTOR

- 4.1 Stranded conductor: The conductor shall be soft or annealed copper of 7 or 19 strands in accordance with ASTM B 8-04, and tinned or lead alloy coated, conforming to ASTM B 33-04 or B 189-05 respectively.
- 4.2 Resistance of conductor: The direct current resistance of the conductors shall conform to ICEA Standard Publication S-19-81 (1994), Section 2.5.2.

5. CONDUCTOR INSULATION

- 5.1 The conductor insulation shall be a vulcanized rubber compound meeting the dimensional, electrical, and physical properties in Appendix A of this specification.
- 5.2 The conductor insulation shall be applied directly to the surface of the conductor and shall adhere tightly to that surface but be free stripping so as to leave the conductor clean.
- 5.3 The insulation on the individual conductors shall not crack during installation at temperatures as low as -40°C (-40°F).
- 5.4 Voltage and insulation resistance tests shall be made on the individual conductors. Insulated conductors shall meet the Accelerated Water Absorption Test in Appendix A of this specification, Electrical Method @ 90°C (194°F).
- 5.5 Multi-conductor Cables - The insulation thickness for conductors used in multi-conductor cables shall be as follows.
- Cable used in direct burial, or in ducts, shall meet the requirements for AREMA Class A cable shown in Table I of this specification.
 - Cable installed above grade shall meet the requirements for AREMA Class B cable shown in Table I of this specification.

TABLE I

AREMA Class	Conductor Size, AWG	Conductor Insulation	<u>Test Voltages</u>	
			AC-60HZ. 5 Minutes	DC 10 Minutes
A	16 to 8	79 mils	10,000	30,000
	6 to 2	94 mils	11,000	33,000
B	16 to 8	62 mils	8,000	25,000
	6 to 2	78 mils	10,000	30,000

NOTE: The insulation thickness specified in Table 1, at the thinnest part of any cross section of insulated wire, shall not be less than 90% of that specified. The average thickness shall be at least the value shown.

6. PRODUCTION TESTING OF SINGLE CONDUCTORS

- 6.1 Dry "Spark" Test: The single insulated conductors shall be passed through high voltage test electrodes energized with a minimum of 10 (ten) kV, 60 cycle AC to insure detection of damage to conductor insulation.

6. PRODUCTION TESTING OF SINGLE CONDUCTORS (Cont.)

- 6.2 AC Test (Wet Tank): Before any further assembly, every individual insulated conductor shall be randomly wound on reels, submerged in water, and subjected to 5 minutes of AC-60 HZ test voltage as called for in Table I of this specification. This test shall be made while still submerged for at least 24 hours.

- 6.3 Insulation Resistance Testing: Immediately after the AC test and while the conductor is still submerged, an insulation resistance test shall be made on each length of conductor. The insulation on resistance constant, "K", in the following formula, when corrected to 15.6°C (60°F), shall not be less than 35,000 MEGOHMS 1000'.

$$R = K \log_{10} \frac{D}{d}$$

R=Insulation resistance in megohms per 1000' at
15.6°C (60°F)

K=35,000 megohms constant - 1000' unit.

D=Diameter over conductor insulation.

d=Diameter under conductor insulation.

- 6.4 DC Test: Immediately after the insulation resistance test, and while still submerged, each coil or reel length of insulated conductor shall be subjected to and withstand the DC test voltage as shown in Table I of this specification for 10 minutes.

7. ASSEMBLY AND OUTER JACKET

7.1 Multi-Conductor Cables:

- 7.1.1 Underground Direct Burial or Duct Cables shall be made by assembling individual conductors as specified in Table I of this specification per AREMA Class A. Individual conductors shall be cabled helically with adjacent layers wound in opposite directions. Flame and moisture resistant fillers are to be used where necessary with the cabled conductors to assemble the cable into a tight cylinder and covered with a shock-absorbing layer of moisture resistant core tape or elastomeric material.

- 7.1.1.1 Cushion layer of Elastomeric Material - When an elastomeric material is used for the cushion layer, the thickness shall be in accordance with Table II below.

TABLE II

<u>Calculated Core Diameter - Inches</u>	<u>Average Cushion Layer Thickness</u>
0-1.500	47 mils
1.501 - Layer	62 mils

7. ASSEMBLY AND OUTER JACKET (Cont.)

7.1.1 (Cont.)

7.1.1.2 Cushioning Layer of Tape - When a cushioning tape is used, the assembled core shall be covered with a 10-mil minimum helically applied compound filled tape having a minimum overlap of 12.5%. The tape shall be compatible with the conductor insulation.

7.1.1.3 The outer jacket shall be made of extruded black, low density, high molecular weight polyethylene which shall be capable of meeting material Type I, Class C, Grade E5 of ASTM D 1248-05, with a thickness in accordance with Table III below. The outer jacket shall meet the physical characteristics called for in Appendix B of this specification.

TABLE III

<u>Calculated Core Diameter - Inches</u>	<u>Average Polyethylene Jacket Thickness</u>
0 to 0.425	65 mils
0.4326 to 0.700	80 mils
0.701 to 1.050	95 mils
1.051 to 1.500	110 mils
1.501 to 2.000	140 mils

7.1.2 Aerial (above ground) cables shall be made by assembling individual conductors as specified in Table I of this specification for AREMA Class B cable. Individual conductors shall be cabled helically with adjacent layers wound in opposite directions. Flame and moisture resistant fillers are to be used where necessary with the cabled conductors to assemble the cable into a tight cylindrical core, and covered overall with a moisture resistant tape. The outer jacket shall be made with neoprene or hypalon meeting the physical characteristics specified in Appendix C of this specification and in accordance with appropriate thickness in Table IV below.

TABLE IV

<u>Calculated core Diameter - Inches</u>	<u>Average Jacket Thickness</u>
Up to 0.425	65 mils
0.425 to 0.700	80 mils
0.701 to 1.050	95 mils
1.050 to 1.500	100 mils
1.501 to 2.000	125 mils

7. ASSEMBLY AND OUTER JACKET (Cont.)

7.1.1 (Cont.)

- 7.1.3 Each individual conductor shall be uniquely identified by means of numbers printed directly on the conductor insulation. Coding shall begin with the word "one" and continue in sequence without repetition until all conductors are identified (i.e.: one, two, three, etc.). The number on each conductor shall be printed with white ink* in two parallel lines 180 degrees apart with one line reversed in direction relative to the other. This identification shall repeat a minimum of every six inches for the entire length of the cable.

* As referenced in ICEA S-19-81, Sec. 5, Method 3.

- 7.1.4 Dry "spark" test shall be made during the process of cabling prior to application of all overall coverings including metal tapes. This is the same test described in Section 6.1 of this specification in which ten (10) kV, 60 cycle AC is applied to insure detection of mechanical damage to conductor insulation.
- 7.1.5 Final tests on finished cable shall consist of conductor resistance per Article 4.2 of this specification, and an insulation resistance test using the AC-60 HZ test voltage, or the DC test voltage, called for in Table I of this specification, between conductors to a ground obtained by water immersion of non metallic shielded cables or the metallic shield and between each conductor and every other conductor with which it comes into contact in the cable.

7.2 Single Conductor Cable

- 7.2.1 Single Conductor Underground Cables shall be made in accordance with Table V. The conductor insulation shall meet the requirements of 5.1, 5.2 and 5.3 above. The Outer Jacket shall be made of extruded black, low density high molecular weight polyethylene which shall be capable of meeting material Type I, Class C, Grade E5 of ASTM D 1248.

TABLE V

<u>Conductor Size AWG</u>	<u>Thickness of Insulation</u>	<u>Thickness of Polyethylene Jacket</u>	<u>Tank Test KV AC 5 Min.</u>
6	94 mils	62 mils	7.5
8	78 mils	62 mils	6.0
9	78 mils	62 mils	6.0

8. MECHANICAL PROTECTION AND SHIELDING (if required)

- 8.1 Mechanical protection if required shall be a flat 10-mil bronze tape helically wrapped so that at least a 20% overlap is obtained.

9. IDENTIFICATION

- 9.1 Multi-conductor Cable and Single Conductor Cable - Each length of cable shall be permanently identified as to the manufacturer and year of manufacture, at intervals not less than three feet, with a moisture resistant marker tape under the jacket and parallel to the longitudinal axis of the cable. The name of the manufacturer, the year manufactured, the size and type of cable (i.e.: 27c#14, 12c#14, etc), and a relative footage marker number shall be identified in bold, easily read, permanent characters. This information shall be indelibly embossed or printed on the jacket. The footage marker number shall increment based on the interval of the spacing of the identification marks; the difference between any two footage markers shall accurately calculate the length of the cable segment.

10. QUALIFICATIONS

- 10.1 The intent of this specification is to assure the production of properly designed, quality constructed, and thoroughly tested cable which will render long service life to the user for vital circuit signal applications. Efficient methods of production, testing and product evaluation shall be used, but prime concern must be focused on the necessary design and formal quality requirements to insure long cable life and elimination of in-service cable failure.
- 10.2 The contractor shall submit a notarized copy of the Quality Assurance Program form attached to the last page of this specification prior to the award of a contract.
- 10.3 Before commencing manufacture of the cables, the contractor shall submit to the CTA for its approval, a Quality Assurance plan. The plan shall meet all requirements of this specification. The plan shall cover all stages of manufacture, from receipt of incoming materials, assembly, calibration of test equipment, final test and shipment. The plan shall provide for written documentation of tests and inspections made under the plan and such documentation shall be made available at the cable manufacturer's plant for the CTA's inspection. Revisions to the plan shall be submitted to the CTA for its approval.
- 10.4 The contractor must satisfactorily pass the annual audits conducted by the CTA or its agents as called for in Section 10CFR50 of the Federal Register.

10. QUALIFICATIONS (Cont.)

- 10.5 To assure accountability and traceability, the manufacturer shall formulate, prepare, and apply conductor insulating materials and cable outer coverings and shall perform conductor insulating and cable assembly and testing in their own plant(s).
 - 10.5.1 If the manufacturer does not normally prepare insulating materials in their own plant(s), it is acceptable for the manufacturer to have their proprietary formulations compounded at another non-owned facility. This facility shall be subject to the same Quality Assurance procedures and systems the manufacturer uses in their own facilities and shall be subject to audit by the CTA or its agents under the requirements of Section 10CFR50, Appendix B, of the Federal Register.
 - 10.5.2 If such an outside facility is used, the manufacturer shall submit a notarized copy of the attached Quality Assurance Program form completed by the outside facility prior to award of contract.
- 10.6 The contractor, or the manufacturer supplying the cable to the contractor, shall provide a completed notarized copy of the attached Engineering Report (pages D-13 & D-14) attesting to the insulation's consistency and quality prior to award of contract.
- 10.7 The contractor, or the manufacturer supplying the cable to the contractor, shall have a minimum of fifteen years reliable experience on vital circuit signal cables of this type on at least ten railroads or rapid transit properties. The contractor shall provide with their bid proposal the names of the ten railroads or rapid transit properties they have supplied this type of cable to in the past fifteen years, or shall meet the qualifications herein.
- 10.8 The contractor shall provide the actual values of the tests performed under Appendix A of this specification.
- 10.9 If requested by the CTA, the contractor shall furnish at no additional cost to the CTA, sample specimens of each type cable proposed. The sample specimens shall be equal to those proposed, and be in four (4) foot lengths, marked per section 9 of this specification. Requested samples shall be delivered within twenty (20) days after the close of bid date, and will remain the property of the CTA.

11. WARRANTY

- 11.1 The contractor shall expressly warrant that the vital circuit signal wire and cable furnished under this specification shall be free from defects in material and workmanship and when used in the application, for which it is designed, will provide satisfactory performance for a minimum of 40 years. The contractor must be responsible for the wire and cable for the life of the installation. Exception to this warranty requirement is to any wire or cable that has been subjected to misuse or accident after it has been accepted by the CTA upon delivery.

11. WARRANTY (Cont.)

- 11.2 Exceptions taken by the contractor to the qualifications of this specification must be so stated and submitted to the CTA Purchasing Agent.
- 11.3 The contractor shall covenant and agree to save harmless and indemnify the CTA against all claims, suits, actions or proceedings, damages, costs, fees, and expenses by reason of infringement or alleged infringements of patents, or for patent royalties involved, in consequence of the purchase and the use of material covered hereby.

12. SUPERSEDING

- 12.1 This specification supersedes all specifications previously issued for this item by the CTA.

13 ADDITIONAL INFORMATION

- 13.1 Bidders requiring additional information shall contact the Procurement Administrator listed on the front page of this Contract Document. Potential Bidders requiring additional information from a person or persons listed in the Special Conditions must route their requests through the Procurement Administrator. Potential Bidders who contact any Authority personnel other than the Procurement Administrator will be considered in violation of the provisions of the Contract Document

DISTRIBUTION: Mgr., Signal Maintenance
 Mgr., Signal Engineering
 Mgr., Technical Services-Rail

JG/el - Revised - 11/29/90
MD/MC (Signal Eng'g.)/md - 7th Revision -11-03-06
CA/ca – Reviewed and Reapproved – 2/10/2011

APPENDIX A**INSULATION FOR VITAL CIRCUIT SIGNAL CABLES
PHYSICAL AND ELECTRICAL CHARACTERISTICS**

<u>INSULATION</u>	<u>GUARANTEED VALUES</u>
1. Physical properties	
Original properties:	
. Tensile Strength - minimum psi	1000
. Tensile stress at 200% elongation - min. psi	600
. Elongation at rupture - minimum percent	300
Properties after accelerated aging:	
Oxygen pressure test - 168 hours 176°F (80°C) -300 psi	
. Tensile strength - minimum percent of original	90
. Elongation, minimum percent of original	85
Air pressure heat test - 20 hours - 260°F (127°C) - 80 psi	
. Tensile strength, min. percent of original	90
. Elongation - min. percent of original	85
After air oven aging - 168 hours - 249.8°F (121°C)	
. Tensile strength - min. percent of original	90
. Elongation - min. percent of original	85
2. Insulation resistance constant:	
. Megohms - 1000 ft. at 60°F (15.6°C) - minimum	35,000
3. Mechanical water absorption:	
. 7 days - 158°F (70° C) - mg/sq. in - maximum	8
4. Electrical stability in water on insulated conductors only:	
. 1000 cycles - 122°F (50°C)	
. Dielectric constant 1day immersion - maximum	3.0
Increase in dielectric constant:	
. 1-14 days - percent maximum	1.0
. 7-14 days - percent maximum	0.5
Power Factor	
. 14 days maximum percent	1.0

APPENDIX A - (Cont)

5. Accelerated electric stability test in water on insulated conductors only:
 80 volts/mil measurement stress
 . 60 cycles - 194°F (90°C) Dielectric constant -
 1 day immersion - maximum 3.0
 Increase in dielectric constant:
 . 1-14 days - percent max. 1.0
 . 7-14 days - percent max. 0.5
 . 1-90 days - percent max. (1) 1.0
 Power Factor
 . 14 days - percent max. 1.0
 . 90 days immersion - percent max. (1) 1.0
6. Accelerated insulation resistance stability test on insulated conductors only: 90°C (194°F) megohms - 1000 ft.
 . 1 day immersion - minimum 1000
 . 90 days immersion - minimum 1000
7. Accelerated voltage stability:
 A single conductor #14 AWG or larger size with 80 mils or thicker insulation wall shall have at least 10 feet immersed in water at room temperature. The insulated conductor, without any covering over the insulation, shall be continuously energized as follows:
- | <u>AC Voltage</u>
<u>V/Mil</u> | <u>Time</u>
<u>Mos.</u> |
|-----------------------------------|----------------------------|
| 325 | 2 or |
| 280 | 3 or |
| 240 | 4 or |
| 200 | 6 |
8. Ozone resistant test:
 . 7 days at 250 ppm concentration No cracks

APPENDIX B**POLYETHYLENE PHYSICAL CHARACTERISTICS**

When tested with methods described in ICEA Pub. No. S-68-516-1996, the thermoplastic material shall have the following characteristics:

1. **PHYSICAL PROPERTIES**
 - A. **Original Properties**

Tensile Strength, min., psi	1400
Elongation at Rupture, min. percent	350
 - B. **After Over Age**, 48 hrs. at 212°F

Tensile strength, percent of original, min.	85
Elongation, percent of original, min.	85
 - C. **Oil Immersion Aging**, 4 hrs. at 158°F, ASTM No. 2 Oil

Tensile strength, percent of original, min.	75
Elongation, percent of original, min.	75
 - D. **Mechanical Water Absorption**

7 days at 158°F, Mg/Sq. In., maximum	5
--------------------------------------	---
 - E. **Shrinkback**, 24 hrs. at 212°F

Percent - minimum	5
-------------------	---
2. **COLD BEND**, 1 hr. at -31°F, Bend 180° around Mandrel No cracks
 Mandrel Size: 0-0.80, 8 x O.D. of cable
 0.80 and over, 10 x O.D. of cable
3. **HEAT DISTORTION**, 1 hr. at 194°F
 Percent distortion - maximum 25
4. **ABSORPTION COEFFICIENT**
 (Reciprocal function of light transmission
 corrected for thickness.) Minimum 3200
5. **ENVIRONMENTAL STRESS CRACKING**
 Immerse in Igepal CO-630, 48 hrs. at 122°F No cracks
6. **IMPACT**, 4 hrs. at -49°F
 Strike with 1" dia. steel rod on a flat surface with 3 ft/lb force.
 Visual Inspection No cracks

NOTE: Above material shall also comply with ASTM D 1248, Type 1 Polyethylene.

APPENDIX C**NEOPRENE OR HYPALON-BASED COMPOUND
PHYSICAL CHARACTERISTICS**

When tested with methods described in ICEA Pub. S-68-516, the thermosetting material shall have the following characteristics:

1. **PHYSICAL PROPERTIES**
 - A. **Original Properties**

Tensile strength, min. psi.	1800
Tensile stress at 200% elongation, min. psi	500
Elongation, percent minimum	300
Set, percent minimum	15
 - B. **After Over Age, 7 days at 212°F**

Tensile strength, percent of original, minimum	50
Elongation, percent of original, minimum	50
 - C. **Oil Immersion Aging, 18 hrs. at 249.8° F, ASTM No. 2 Oil**

Tensile strength, percent of original, minimum	60
Elongation, percent of original, minimum	60
 - D. **Mechanical Water Absorption**

7 days at 158°F, Mg./Sq. In., maximum	35
---------------------------------------	----
2. **COLD BEND, 24 hrs. at -31°F, Bent 180° around mandrel**

Mandrel Size:	0-0.80, 8 x O.D. of cable	No cracks
	0.80 and over, 10 x O.D. of cable	No cracks
3. **VERTICAL FLAME TEST (S-19-81, Paragraph 6.19.6)**

	Pass
--	------
4. **OZONE RESISTANCE, 24 hrs. in 150 ppm Ozone**

	No cracks
--	-----------
5. **HEAT DISTORTION, 1 hr. In air oven at 249.8°F**

Percent distortion - maximum	15
------------------------------	----

NAME OF COMPANY

ENGINEERING REPORT

INTRODUCTION

Certain specifications call for rather specific qualification tests on the insulation. These tests involve long term voltage aging, moisture resistance and thermal aging.

Insulation used in vital signal cable was tested according to these specifications.

Standard factory production cables were used as samples.

SUMMARY AND CONCLUSIONS

_____ Insulation tested in accord with the procedures below meets the requirements of the CTA specifications.

DETAILS

Thermal Aging - The 80 mil thick slab samples of the insulation shall be tested in a circulating air oven and shall have an elongation no less than 50% after a minimum aging time of 25 hours at 136°C and 100 hours at 121°C.

The insulation tested as above, gave the following results:

Elongation at Break - Initial	-	_____%
Elongation after 25 hrs. at 136°C	-	_____%
Elongation after 100 hrs. at 120°C	-	_____%

Engineering Report - Continued

Voltage Aging - The dielectric strength stability shall have been demonstrated by voltage aging, a test sample of a single conductor AWG 14 or larger size wire with 80-mil or thicker insulation, shielded with the shield grounded. The cable shall be tested in free air with a minimum of ten feet between terminals. One of the following voltage stresses shall have been applied to voltage age the sample.

Test Voltage 60-Hz AC <u>Volts/Mils</u>		Aging Time <u>Duration</u>
490	for	6 months, or
315	for	1 year, or
225	for	2 years, or
180	for	3 years, or
135	for	5 years

No insulation failure shall occur within the stress period.

The shielded _____ insulation 80 mils thick on a _____ tinned copper conductor of _____ length was placed in free air at room temperature for _____ months at a stress of _____ v/mil tie for a duration of _____. No failure occurred during the test period.

Moisture Resistance - A single conductor No. 14 AWG or larger size, with 80 mils or thicker insulation wall, shall have at least 10 feet immersed in water at room temperature. The insulated conductor without any coverings over the insulation shall be continuously energized as follows:

DC Voltage <u>V/mil</u>	<u>Time</u>
325	2 months, or
280	3 months, or
240	4 months, or
200	6 months

No insulation failure shall occur within the test period.

The bare _____ insulation 80 mils thick on a _____ tinned copper conductor of _____ length was placed in tap water at room temperature for _____ months at a stress of _____ V/mil. No failure occurred during the test period.

QUALITY ASSURANCE PROGRAM

This statement will certify that

Name of Company

will manufacture and test the cable under the control of a quality assurance program which meets the requirements of Section 10CFR50, Appendix B, of the Federal Registrar.

Inquiry No.

Notary

Cable Company Representative

CHICAGO TRANSIT AUTHORITY

**DETAIL SPECIFICATION
FOR
CABLE: BARE COPPER**

**SPECIFICATION NO. CTA 668-09
CTA ITEM NO. 3101778**

1. SCOPE

- 1.1 This specification will describe the requirements for a Contractor to furnish bare rope-lay copper cable, CTA Item No. 3101778, that is used for electrical purposes throughout the Chicago Transit Authority.

2. DETAIL REQUIREMENTS

- 2.1 The cable shall be made from untinned, annealed, round copper wire and shall conform in all respects to ASTM B3.
- 2.2 Each conductor shall be concentric-lay-stranded constructed per ASTM B8 and the rope-lays listed in Section 2.5.
- 2.3 The cable shall be constructed from concentric stranded conductors conforming to the requirements of ASTM B173, Class H and the rope-lays listed in Section 2.5.
- 2.4 The current revision at the time of Invitation For Bid to the ASTM standards referenced shall apply.
- 2.5 To insure that the cable will not unwind when cut, the rope lay of each layer of wire shall be as follows:
- 1st Layer - 22/36 Bare @ 0.75" LH Lay
2nd Layer - 7x22/36 Bare @ 0.561" RH Lay
3rd Layer - 7x7x22/36 Bare @ 1.00" LH Lay
- 2.6 The cable shall be supplied on disposable reels in five-hundred (500) foot lengths.
- 2.7 Cable and reel shall be marked in accordance with ASTM B173.

3. APPROVED AND NON-APPROVED ITEM INFORMATION

- 3.1 Contractor shall only furnish and deliver CTA approved items under the terms of a given contract.
- 3.2 Should a potential contractor wish to offer for CTA consideration an alternate item not currently approved, the potential contractor shall first contact the CTA Procurement Administrator or Buyer for details on the CTA's item approval process.
- 3.3 The time required for reviewing and/or testing each item offered will vary and depend on applicable procedures.
- 3.4 Approval of an item does not guarantee an order under a currently proposed or future contract. Upon award of a contract, each item furnished by the contractor shall be identical to the item that was approved.

4. ADDITIONAL INFORMATION FOR POTENTIAL BIDDERS

- 4.1 Bidders requiring additional information shall contact the Procurement Administrator listed on the front page of the Contract Documents. Potential bidders requiring additional information from a person or persons listed in the Special Conditions must route their requests through the Procurement Administrator. Potential bidders who contact any Authority personnel other than the Procurement Administrator will be considered in violation of the provisions of the Contract Documents.

DISTRIBUTION: Mgr. Technical Services-Rail
Coord., Quality Inspection - Central Whse.
CTA Intranet Specification Library

CEK/had - Initial Spec - 1/9/49
MD/md - 12th Revision - 08/31/09

CHICAGO TRANSIT AUTHORITY

DETAIL SPECIFICATION FOR

CABLE: ELECTRIC, PORTABLE, TYPE SOOW AND SJOOW, EPR INSULATED NEOPRENE SHEATH, SINGLE AND MULTIPLE CONDUCTOR

SPECIFICATION NO CTA 703-11

1. SCOPE

- 1.1 This specification covers the requirements for supplying portable electric cables type SOOW and SJOOW utilized throughout the Chicago Transit Authority's (CTA) system.

2. GENERAL

- 2.1 The cables supplied shall be used for Heavy (S) and Junior Hard-Service (SJ) applications. The cable jacket and conductor insulation shall be oil resistant and be UL listed and CSA certified for indoor and outdoor use.

3. INFORMATION TO BE LISTED IN THE CONTRACT DOCUMENTS

- 3.1 For each specific Contract, refer to the Contract Documents for detailed information on the following:
- a. Cable Type: SOOW or SJOOW
 - b. Size of Conductors in American Wire Gage (AWG) units.
 - c. Length of Cable in feet
 - d. Number of Conductors

4. CONSTRUCTION

- 4.1 SOOW cable rated for 600-volt and SJOOW cable rated for 300-volt will be used with portable tools, extension lights, etc. and shall be rated at 90°C (194°F).
- 4.2 The conductor insulation shall be Ethylene Propylene Rubber-Insulated Wire and shall meet the requirements of Section 7.4 of ICEA Publication No. S-68-516, the latest revision at the time of Invitation to Bid shall apply.
- 4.3 The conductor shall be uncoated stranded annealed copper cable and shall meet the requirements of ASTM B-174, the latest revision at the time of Invitation to Bid shall apply. The stranding shall be in accordance with Section 7.4.2.3 of ICEA Pub. No. S-68-516.

4. CONSTRUCTION (Cont'd)

- 4.4 The conductor sizes and insulation thickness shall be in accordance with Table 3-2 of ICEA S-19-81, NEMA WC3, the latest revision at the time of Invitation of Bid shall apply.
- 4.5 The jacket shall be heavy-duty neoprene and shall meet the requirements of Section 7.4.5.1 of ICEA Pub. No. S-68-516. The thickness of the jacket shall be in accordance with ICEA Pub. No. S-68-516. Table 7.4.6 and shall be determined in accordance with Sections 7.4.3.1 and 7.4.3.2 of the ICEA Publication.

5. MARKINGS

- 5.1 Cables will be marked externally to easily identify the manufacturer on any piece of cable every two (2) to five (5) feet in length. The inner conductors shall be color coded per ICEA S-19-81, NEMA WC3; Section 5.6.2.1, Method 1, Table 5-2.

6. APPROVED AND NON-APPROVED ITEM INFORMATION

- 6.1 Contractor shall only furnish and deliver CTA approved items under the terms of a given contract. Should a potential contractor wish to offer for CTA consideration an alternate item not currently approved, the potential contractor shall first contact the CTA Procurement Administrator or Buyer for details on the CTA's item approval process. The time required for reviewing and/or testing each item offered will vary and depend on applicable procedures. Approval of an item does not guarantee an order under a currently proposed or future contract. Upon award of a contract, each item furnished by the contractor shall be identical to the item that was approved.

7. ADDITIONAL INFORMATION FOR POTENTIAL BIDDERS

- 7.1 Bidders requiring additional information shall contact the Procurement Administrator listed on the front page of this Contract Document. Potential bidders requiring additional information from a person or persons listed in the Special Conditions must route their requests through the Procurement Administrator. Potential bidders who contact any Authority personnel other than the Procurement Administrator will be considered in violation of the provisions of the Contract Document.

DISTRIBUTION: Manager, Technical Services Rail
Manager, Technical Services Bus

JEV/mi – Initial Spec – 11/14/50
CA/ca – 20th Revision – 11/2/11

CHICAGO TRANSIT AUTHORITY
DETAIL SPECIFICATION
FOR
CABLE, ELECTRIC WELDING –
CHLORINATED POLYETHYLENE INSULATED

SPECIFICATION NO. 711-05(R10)

1 **SCOPE**

- 1.1 This specification details the requirements for electric welding cable used to conduct secondary electrical power for arc welding operations at Chicago Transit Authority construction and maintenance sites throughout the service area.

2 **REQUIREMENTS**

- 2.1 The Contractor shall furnish new, highly flexible electric welding cable (cable) as requested in each contract release.
- 2.2 The furnished cable shall feature an abrasion resistant jacket that shall remain flexible and stable throughout a temperature range of -40° to 85° C (-40° to 185° F) or beyond. The jacket shall be resistant to deterioration from extended exposure to outdoor weather, ozone, ultraviolet radiation, water, cleaning detergents, battery acid, petroleum-based lubricating oil, grease and combinations thereof.
- 2.3 The welding cable jacket shall be composed of thermoset chlorinated polyethylene (CPE) rubber, rated for 600 volt alternating current (VAC), 90° C (or greater) service. The jacket shall comply with American Society for Testing and Materials (ASTM) standard D 4313, *General-Purpose, Heavy-Duty, and Extra-Heavy-Duty Crosslinked Chlorinated Polyethylene Jackets for Wire and Cable*.
- 2.4 The cable conductor shall be stranded in accord with ASTM B 172, *Rope-Lay-Stranded Copper Conductors Having Bunch-Stranded Members for Electrical Conductors*, class M (also known as 34 AWG stranding). Strands shall be bare, i.e. not tinned.
- 2.5 The conductor strands shall be of annealed copper conforming to ASTM B 3, *Soft or Annealed Copper Wire*.
- 2.6 The cable shall feature a separator between the conductor and the insulating jacket. The separator shall be composed of paper, rayon or other approved material. The separator shall strip freely from the conductors without necessitating mechanical or chemical assistance.

2 REQUIREMENTS (Cont.)

- 2.7 Welding cable shall be furnished in the requested size (diameter). Unless otherwise specified, sizes shall comply with the American Wire Gauge (AWG) scale as defined in ASTM B 172.
- 2.8 The furnished welding cable shall be registered with a third party, internationally recognized product safety testing and certification organization for the service indicated. Products registered with and bearing the seal of Underwriters Laboratories Incorporated (UL; Northbrook, IL) have been used to meet this requirement.
- 2.9 The furnished welding cable shall be compliant with the applicable standards of the American National Standards Institute (ANSI), National Electrical Manufacturers Association (NEMA) and Insulated Cable Engineers Association (ICEA). Standard ANSI/NEMA WC 70/ICEA S-95-658, *Nonshielded Power Cables Rated 2000 Volts or Less for the Distribution of Electrical Energy*, is included in this requirement.
- 2.10 Unless otherwise requested, cables of length 250 feet and shorter shall be furnished as a single continuous length. Cable of greater lengths shall be furnished in increments of this length limit or longer.
- 2.11 Unless otherwise requested, the Contractor shall furnish the welding cable on the manufacturer's non-returnable reels or spools.
- 2.12 The jacket surface shall bear the product identification at an interval of 6 feet or less. The identification shall include, but is not limited to, the manufacturer's name or logo, certification organization's name or logo (per requirement 2.8), wire size (gauge), temperature and voltage rating. The jacket color may be at the discretion of the Contractor.
- 2.13 The version of each standard referenced herein that is current on the date of the Invitation for Bid shall apply.

3 CONTRACT INFORMATION

- 3.1 Bidders shall refer to the contract documents for a list of welding cable sizes upon which to base their proposal.
- 3.2 CTA reserves the right to request, review and examine documentation and samples of proposed welding cable without cost or obligation. If documentation or samples are required, Bidders will be notified of the quantity and delivery location requirements.

3 CONTRACT INFORMATION (Cont.)

- 3.3 Bidders requiring additional information shall contact the Procurement Administrator listed on the front page of this contract document. Potential bidders requiring additional information from person(s) listed in the special conditions must route their requests through the Procurement Administrator. Potential bidders who contact any CTA personnel other than the Procurement Administrator will be considered in violation of the provisions of the contract document.

Distribution: Manager, Technical Support – West Shops

Initial Specification - 1948
CE/che – 9th Revision – 1/24/05
SAS/sas – Reviewed – 08/24/10

CHICAGO TRANSIT AUTHORITY
DETAIL SPECIFICATION
FOR
CABLES: VARIOUS, ELECTRIC TRAINLINE CONTROL, MULTI CONDUCTOR
X-LINKED POLYOLEFIN INSULATED, NEOPRENE JACKET
SPECIFICATION NO CTA 754-11

1. SCOPE

- 1.1 This specification covers the requirements for various multi conductor trainline control cables designed for Rapid Transit Car application.

2. GENERAL

- 2.1 The trainline control cables covered by this specification are as follows.

- CTA Item No. 3103153: 56 Conductor Cable
- CTA Item No. 3103152: 34 Conductor Cable
- CTA Item No. 3103154: 19 Conductor Cable

- 2.2 The cables furnished shall be new manufacture, relatively small compact assemblies, very flexible in nature, with an insulation applied that is relatively thin but highly inert and resistant to abrasion, cut-through, notch propagation, impact, voltage, moisture, fire, chemicals and heat.

3. CONDUCTORS

- 3.1 The single conductors shall be 12 AWG, 65 strands, Class K copper and shall be tin plated, soft annealed per ASTM B3 and ASTM B8, latest revision.
- 3.2 The twisted shielded pairs shall be 16 AWG, 26 strands, Class K copper and shall be tin plated, soft annealed per ASTM B3 and ASTM B8, latest revision. The shielding material shall be tinned copper braid.
- 3.3 The color coding shall be per IPCEA No. S-19-81, NEMA WC 3, Section 5.6.2.1.1, Method 1, Table 2, including second tracer color for cables over 21 conductors.

4. INSULATION

- 4.1 The insulation of the individual conductors shall be irradiated cross-linked polyolefin (XLPO).
- 4.2 The insulation shall have a minimum voltage rating of 1000VDC and a minimum temperature rating of 125°C (continuous temperature).
- 4.3 The insulation material shall have a UL flammability rating of SE-O and must pass the vertical flame test and ASTM D635, latest revision.

5. FILLERS and SEPARATOR

- 5.1 The fillers shall be foam polypropylene or equal.
- 5.1.1 The conductors shall be formed into a core and mylar tape separator shall be supplied.

6. JACKET

- 6.1 The outer jacket shall be neoprene.

7. CABLE CONSTRUCTION

7.1 CTA Lot No. 3103153: 56 Conductor Trainline Control Cable

- 7.1.1 The overall core of the 56 conductor cable shall be as depicted in the appendix, figure 1 and shall be constructed as follows:

- First Layer 6.5" +/-1" Right Hand Lay
- Second Layer 11.0" +/-1" Left Hand Lay
- Third Layer 15.5" +/-1" Right Hand Lay
- Fourth Layer 19.0" +/-1" Left Hand Lay

- 7.1.2 The color coding shall be as stated in Section 3.3 of this specification and shall begin with the twisted shielded pairs at its core.

7.2 CTA Lot No. 3103152: 34 Conductor Trainline Control Cable

- 7.2.1 The overall core of the 34 conductor cable shall be as depicted in the appendix, figure 2.

- 7.2.2 The color coding shall be as stated in Section 3.3 of this specification and shall begin with the single conductors at its core.

7. CABLE CONSTRUCTION (Cont.)

7.3 CTA Item No. 3103154: 19 Conductor Trainline Control Cable

7.3.1 The overall core of the 19 conductor cable shall be as depicted in the appendix, figure 3 and shall be constructed as follows:

- First Layer 7.0" +/-1" Right Hand Lay
- Second Layer 11.5" +/-1" Left Hand Lay

7.3.2 The color coding shall be as stated in Section 3.3 of this specification and shall begin with the twisted shielded pairs at its core.

8. PACKAGING

8.1 The cable shall be supplied on the manufacturer's standard non-returnable reels. The ends of all cables shall be suitably protected and water-proofed and have both ends securely fastened to prevent injury to the cable during shipment.

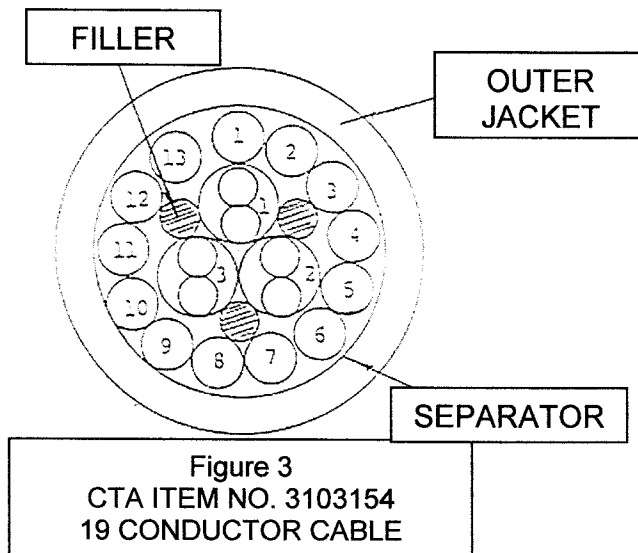
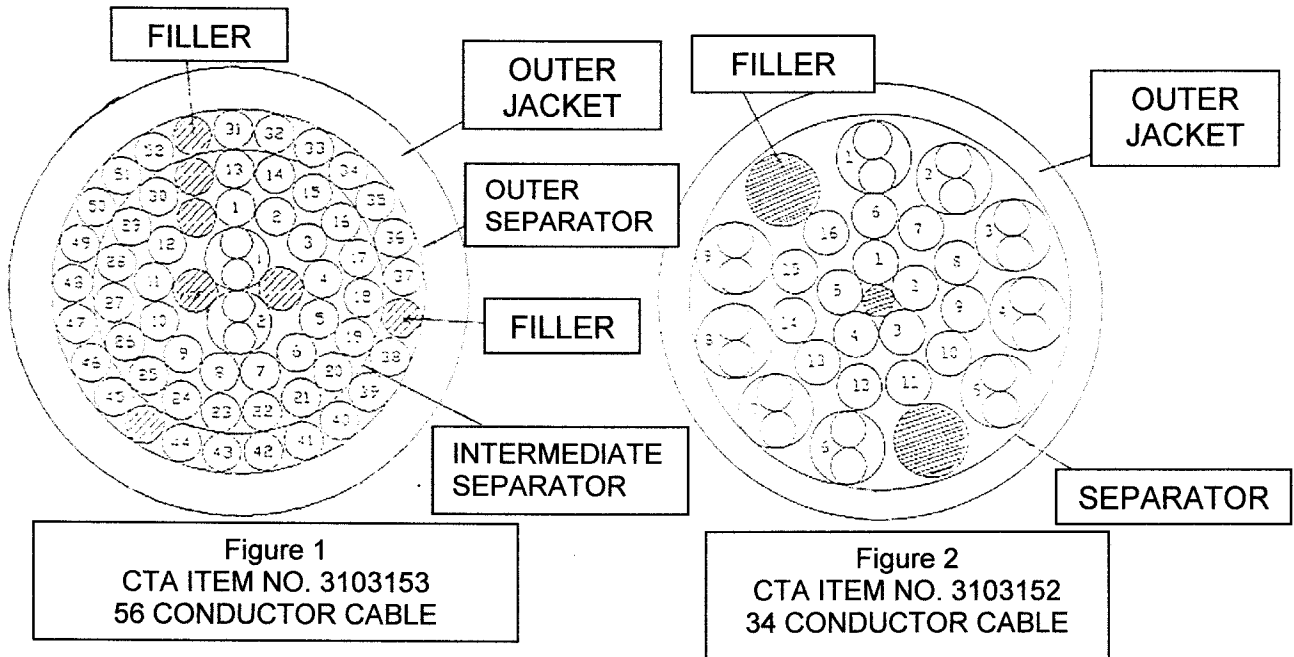
8.2 Each reel shall carry suitable tags showing the name of Purchaser, address, order number, name of manufacturer, type of wire, size, weight and length.

9 ADDITIONAL INFORMATION FOR POTENTIAL BIDDERS

9.1 Bidders requiring additional information shall contact the Procurement Administrator listed on the front page of the Contract Document. Potential Bidders requiring additional information from a person or persons listed in the Special Conditions must route their requests through the Procurement Administrator. Potential Bidders who contact any Authority personnel other than the Procurement Administrator will be considered in violation of the provisions of the Contract Document.

DISTRIBUTION: Mgr., Technical Services-Rail

JEV/sh - Initial Spec. - 2/14/96
MD/md - 3rd Revision - 02/23/05
CA/ca - 4th Revision - 04/08/11

APPENDIX

CHICAGO TRANSIT AUTHORITY

DETAIL SPECIFICATION FOR

WIRE: ELECTRIC, WEATHER-RESISTANT, COPPER,
POLYETHYLENE COVERING, 14 AWG THRU 750 KCM

SPECIFICATION NO CTA 770-10

1. SCOPE

- 1.1 This specification covers the requirements for weatherproof polyethylene wire which is used for primary and secondary distribution on pole lines and is used throughout the Chicago Transit Authority (CTA) system.

2. DETAILED REQUIREMENTS

- 2.1 The latest version to the standards indicated at the time of invitation for bid shall apply.

2.2 CONDUCTOR:

- 2.2.1 The conductor shall be copper and shall comply with the following ASTM's for the kind of conductor called for in the Contract Documents.

2.2.2 ASTM B1 for hard drawn copper wire.

2.2.3 ASTM B2 for medium hard drawn copper wire.

2.2.4 ASTM B3 for soft or annealed copper wire.

2.3 INSULATION

- 2.3.1 The insulation shall be polyethylene and shall meet the requirements of D1248.

- 2.3.2 The thickness of the insulation shall be as follows:

STRANDED CONDUCTORS

Size AWG or KCM	Thickness (64ths in.)	Size AWG or KCM	Thickness (64ths in)
6	2	4/0	4
4	2	250	4
2	3	300	4
1	3	350	4
1/0	4	500	5
2/0	4	750	6
3/0	4		

2.3 INSULATION (Contd.)

2.3.2 (Contd.)

SOLID CONDUCTORS

Size <u>AWG or KCM</u>	Thickness <u>(64ths in.)</u>	Size <u>AWG or KCM</u>	Thickness <u>(64ths in)</u>
14	2	4	2
12	2	3	3
10	2	2	3
9	2	1	3
8	2	1/0	4
6	2	2/0	4

- 2.3.3 Other sizes may be supplied provided respective data is included in the Invitation to Bid.

3. IDENTIFICATION

- 3.1 The cable shall be so marked as to indicate the name of the manufacture, type of insulation, AWG size, and year of manufacture.

4. TESTS & INSPECTIONS

- 4.1 The Purchaser reserves the right to witness all tests conducted upon the cables covered by this specification.
- 4.2 Unless otherwise called for in the Contract Documents, prior to the shipment of any cable, the manufacturer shall furnish the Chicago Transit Authority a certified copy of the test results of the test called for in this specification.
- 4.3 If the manufacturer's certified test results demonstrate compliance with this specification and are approved by the Authority, the Contractor will be so notified and advised to ship the wire or cable.

5. BIDDING

- 5.1 The Contractor shall indicate in his/her Proposal whether or not the cable to be furnished is in compliance with this specification.
- 5.2 The manufacturer shall have had adequate successful commercial experience in the manufacture of the type of cable called for in this specification. Failure to furnish such evidence, if so requested by the Authority, shall be cause for rejection of a bid.

6. PACKING

- 6.1 Cable shall be supplied with the ends waterproofed.

7. APPROVED AND NON-APPROVED ITEM INFORMATION

- 7.1 Contractor shall only furnish and deliver CTA approved items under the terms of a given contract. Should a potential contractor wish to offer for CTA consideration an alternate item not currently approved, the potential contractor shall first contact the CTA Procurement Administrator or Buyer for details on the CTA's item approval process. The time required for reviewing and/or testing each item offered will vary and depend on applicable procedures. Approval of an item does not guarantee an order under a currently proposed or future contract. Upon award of a contract, each item furnished by the contractor shall be identical to the item that was approved.

8. ADDITIONAL INFORMATION FOR POTENTIAL BIDDERS

- 8.1 Bidders requiring additional information shall contact the Procurement Administrator listed on the front page of this Contract Document. Potential bidders requiring additional information from a person or persons listed in the Special Conditions must route their requests through the Procurement Administrator. Potential bidders who contact any Authority personnel other than the Procurement Administrator will be considered in violation of the provisions of the Contract Document.

DISTRIBUTION: Insp., Coordinator
Mgr., Tech. Support

Initial Specification - 01/07/49
SAS/sas – 4th Revision – 12/23/10

CHICAGO TRANSIT AUTHORITY

DETAIL SPECIFICATION FOR

**WIRE; ELECTRICAL, TYPE THW, 75°C,
COPPER, THERMOPLASTIC INSULATED, COLORED**

SPECIFICATION NO. CTA 792-07(R12)

1. SCOPE

- 1.1 This specification will describe the requirements for a Contractor to furnish THW type electric wire.

2. GENERAL REQUIREMENTS

- 2.1 This specification is intended to be descriptive, not restrictive, and is solely for the purpose of indicating the type and quality level of THW type electrical wire, which meets the requirements of the CTA.
- 2.2 The THW wire furnished will be used as a general purpose wiring for lighting and power in buildings for service not to exceed 600 volts.

3. DETAIL REQUIREMENTS

- 3.1 THW type electrical wire shall have good moisture electrical insulation characteristics. The THW wire shall be rated at 75°C in wet or dry conditions and shall be safe for 600 volt operation unless otherwise specified.
- 3.2 THW wire shall be oil and sunlight resistant as listed by UL as meeting the requirements for Type THW wire per UL Standard UL83, latest revision.
- 3.3 The wire shall be listed by UL as meeting UL Standard UL 83 (250 KCM and larger, black only)
- 3.4 The THW wire shall meet all the requirements of UL Standard 83 for Thermoplastic Insulated Wires and Federal Specification J-C-30B latest revision.
- 3.5 The Conductors shall be solid or Class B stranded annealed copper in accordance with UL Standard 83.
- 3.6 Each conductor shall be polyvinyl chloride (PVC) insulated and shall comply with the electrical and physical requirements of UL Standard 83 for THW wire. In addition, the PVC insulation shall comply with the Oil Resistant 1 listing of UL Standard 83.

3. DETAIL REQUIREMENTS (Continued)

- 3.7 The average thickness of insulation, for a given conductor size, shall be as specified in Standard UL standard 83 for THW wire (See Table 1). The minimum thickness at any point shall be not less than 90% of the specified average thickness. The insulation shall be applied tightly to the conductor and shall be free-stripping.

TABLE 1

<u>Size of Conductors</u> <u>AWG</u>	<u>Insulation Thickness</u> <u>In 64ths of an inch</u>
18 AWG thru 9 AWG	3
8 AWG thru 2 AWG	4
1 AWG thru 4/0 AWG	5
250 KCM thru 500 KCM	6

- 3.8 The following information shall be furnished in the Contract Documents:

- Length of Wire - in feet
- Color - Black, white, red, green, orange, yellow, brown, gray or purple
- Size of Conductor – in AWG or CM
- Stranding
- Reel, coil or spool - in length

4. IDENTIFICATION

- 4.1 The wire shall be identified by surface marking indicating manufacturer's identification, conductor size and metal, voltage rating, UL symbol, type designation and optional Oil Resistant listing.

5. TESTING

- 5.1 Wire shall be tested in accordance with the requirements of UL Standard 83 for Type THW wire and for optional Oil Resistant listing.
- 5.2 The Purchaser reserves the right to witness all tests conducted upon cables covered by this specification.
- 5.3 It will be the responsibility of the contractor to furnish wire in conformance with this specification whether test results were required or not. In case the Purchaser tests or has the wire tested and it fails to comply with this specification, the contractor shall assume all testing and shipping charges on the shipment of defective wire. The privilege of replacing rejected wire is optional with the Purchaser.

6. PACKAGING

- 6.1 Wire of sizes No. 8 AWG and smaller shall be supplied on the manufacturer's non-returnable reels or spools. Wire or cable larger than No. 8 AWG may be supplied on the manufacturer's standard returnable reels. Each reel or coil shall be properly and clearly marked showing the CTA name, address, order number and the name of the manufacturer, type of wire or cable, its size and length, and test report identification.
- 6.2 Each reel, coil or spool of wire or cable supplied to the CTA shall be shipped in continuous lengths of 500 or 1,000 feet unless otherwise specified and approved by the CTA.

7. APPROVED AND NON-APPROVED ITEM INFORMATION

- 7.1 Contractor shall only furnish and deliver CTA approved items under the terms of a given contract. Should a potential contractor wish to offer for CTA consideration an alternate item not currently approved, the potential contractor shall first contact the CTA Procurement Administrator or Buyer for details on the CTA's item approval process. The time required for reviewing and/or testing each item offered will vary and depend on applicable procedures. Approval of an item does not guarantee an order under a currently proposed or future contract. Upon award of a contract, each item furnished by the contractor shall be identical to the item that was approved.

8. ADDITIONAL INFORMATION FOR POTENTIAL BIDDERS

- 8.1 Bidders requiring additional information shall contact the Procurement Administrator listed on the front page of the Contract Document. Potential Bidders requiring additional information from a person or persons listed in the Special Conditions must route their requests through the Procurement Administrator. Potential Bidders who contact any Authority personnel other than the Procurement Administrator will be considered in violation of the provisions of the Contract Document.

DISTRIBUTION: Mgr., Technical Support

Initial Spec. - 1948

MD/MP (Tech. Support)/md – 22nd Revision – 07/27/07

HHP / hhp – Reviewed - 02/10/12

CHICAGO TRANSIT AUTHORITY
DETAIL SPECIFICATION
FOR
CABLE: ELECTRIC, AUTOMOTIVE LOW VOLTAGE
SPECIFICATION NO. CTA 2388-11

1. SCOPE

- 1.2 This specification covers the requirements for supplying an automotive low voltage cable for use by the Chicago Transit Authority (CTA).

2. GENERAL

- 2.1 Low Voltage Automotive Cables will be used for automotive applications. Low Voltage Automotive cable shall be constructed of a PVC jacketed, bare copper conductor with no braiding having a temperature range of -40°C to $+80^{\circ}\text{C}$ and be rated for 60 VDC (25VAC) or less.

3. GENERAL REQUIREMENTS

- 3.1 The automotive cable furnished shall meet the requirements of SAE Standard J1128 (latest revision) "Low Tension Primary Cable" for General Purpose, Thermoplastic Braidless (GPT) and for Heavy-Duty, Thermoplastic Braidless (HDT) applications. Cables shall comply with Table 1 in this specification unless otherwise called for in the Contract Documents,

4. TESTS, INSPECTION AND REJECTION

- 4.1 The CTA reserves the right to witness any all and tests conducted on all cables covered under this specification. If requested by the CTA the Contractor shall furnish certified copies of all tests conducted on all Low Tension Automotive cables.
- 4.2 The CTA reserves the right to reject any or all Low Tension Automotive cables, which does not meet the requirements of this specification and the requirements, call for in SAE Standard J1128 latest revision.

5. PACKAGING

- 5.1 Cable No. 10 Gauge and smaller shall be supplied on spools or non-returnable reels containing 100 feet of cable.
- 5.2 Cable larger than No. 10 gauge shall be supplied in accordance with the manufacturer's standard shipping procedures of reels or coils.
- 5.3 Each spool, reel or coil supplied to the CTA shall be legibly marked to show the CTA name, order number, name of the manufacturer and type, size and length of wire unless otherwise specified in the Contract Documents.

6. ADDITIONAL INFORMATION FOR POTENTIAL BIDDERS

- 6.1 Bidders requiring additional information shall contact the Procurement Administrator listed on the front page of this Contract Document. Potential bidders requiring additional information from a person or persons listed in the Special Conditions must route their request through the Procurement Administrator. Potential bidders who contact any CTA personnel other than the Procurement Administrator will be considered in violation of the provisions of the Contract Document.

DISTRIBUTION: Manager, Technical Services - Rail
Coordinator, Quality Insp.

Initial Specification - 7/19/55
CA/ca – 12th Revision – 10/10/11

TABLE 1**TYPE - GENERAL PURPOSE, (GPT) & TYPE 2 - HEAVY DUTY (HDT) CABLES**

SAE Wire Size	No. of Wire	Approx. Dia, of Stranded Conductor Inches	TYPE 1 - (GPT) GENERAL PURPOSE		TYPE 2 - (HDT) HEAVY DUTY	
			Nominal Wall Thick- ness of Insulation Inches	Maximum O.D. of Finished Cable Inches	Nominal Wall Thick- ness of Insulation Inches	Maximum O.D. of Finished Cables Inches
20	7	0.040	0.023	0.095	0.036	0.125
18	16	0.050	0.023	0.100	0.037	0.135
16	19	0.060	0.023	0.115	0.040	0.150
14	19	0.075	0.023	0.125	0.041	0.165
12	19	0.090	0.026	0.150	0.046	0.200
10	19	0.115	0.031	0.185	0.046	0.255
8	19	0.160	0.037	0.235	0.055	0.280

ADDITIONAL AUTOMOTIVE LOW VOLTAGE CABLE SIZES MAY BE PROCURED ON THIS SPECIFICATION BY INCLUDING THE RESPECTIVE INFORMATION CONTAINED IN TABLE 1

CHICAGO TRANSIT AUTHORITY

DETAIL SPECIFICATION FOR

CABLE; VINYL COVERED

SPECIFICATION NO. CTA 2963-12

1. SCOPE

- 1.1 This specification will cover the requirements for a contractor to furnish and deliver vinyl covered cable used in various applications at Chicago Transit Authority (CTA).

2. GENERAL INFORMATION

- 2.1 CTA Item Number: 1710049
Description: Cable with a clear, no color vinyl coating
Application Example: Bus passenger pull cable to initiate a bus stop request
- 2.2 CTA Item Number: 1710055
Description: Cable with a red color vinyl coating
Application Example: Rail car operator pull cable to initiate an emergency stop
- 2.3 The latest version or revision of an applicable, specification, drawing, standard, etc., at the time a given Invitation For Bid (IFB) is posted shall apply.
- 2.4 The CTA will order the vinyl covered cable from the contractor in multiples of 1000 foot lengths. The contractor will furnish the vinyl covered cable on a reel, with each reel having 1000 feet of vinyl covered cable.

3. REQUIREMENTS

- 3.1 The cable shall be new, preformed twist, galvanized metal aircraft cable, having a 3/32 inch outside diameter (OD), and coated with clear or red color vinyl material to a finished outside diameter of 3/16 inch.
- 3.2 The allowable tolerance for the diameter of the finished coated cable shall be +0.012 inch / -0.000 inch.
- 3.3 The cable shall be of 7x7 construction. This consists of seven (7) strands with each strand having seven (7) wires, with each wire having a diameter of 0.01 inch.

3. REQUIREMENTS (Continued)

- 3.4 The cable shall have a minimum breaking strength of 900 pounds.
- 3.5 The vinyl coating on the cable shall be smooth and abrasion resistant.
- 3.6 The hardness of the vinyl coating shall be 80 ± 5 Durometer Type A, per ASTM D 2240.

4. APPROVED AND NON-APPROVED ITEM INFORMATION

- 4.1 Contractor shall only furnish and deliver CTA approved items listed in the Contract Documents under the terms of a given contract. Should a potential contractor wish to offer for CTA consideration an alternate item not currently approved, the potential contractor shall first contact the CTA Procurement Administrator or Buyer for details on the CTA's item approval process. The time required for reviewing and/or testing each item offered will vary and depend on applicable procedures. Approval of an item does not guarantee an order under a currently proposed or future contract. Upon award of a contract, each item furnished by the contractor shall be identical to the item that was approved.

5. ADDITIONAL INFORMATION FOR POTENTIAL CONTRACTORS

- 5.1 Potential contractors requiring additional information shall contact the Procurement Administrator or Buyer whose name is stated in the Contract Documents. Potential contractors requiring additional information from a person or persons potentially listed in the Special Conditions section of the Contract Documents must route their request through the Procurement Administrator or Buyer. Potential contractors who contact any CTA personnel other than the Procurement Administrator or Buyer during the open bidding period will be considered to be in violation of the provisions set forth in the Contract Documents.

Initial Specification – 04/16/62
HHP / hhp – 8th Revision – 02/10/12

CHICAGO TRANSIT AUTHORITY
DETAIL SPECIFICATION
FOR
CABLE: ELECTRIC, COPPER, 2000 VDC DEL OR DLO TYPE
SPECIFICATION NO. 3018-06 (R09)

1. GENERAL

- 1.1 This specification describes a flexible insulated type cable commonly referred to in the industry as Diesel-Electric Locomotive (DEL) cable or Diesel Locomotive (DLO) cable, for CTA rail car traction power applications.

2. CONSTRUCTION

- 2.1 Conductor - The conductor shall be tinned annealed bare copper per ASTM B 33, either bunch stranded per ASTM B 174, or concentric stranded per ASTM B 8. Conductor shall also be in accordance with the following industrial standards as applicable:

- AAR Specification 589
- AREMA recommended practice Section M, RP-588
- ICEA S-95-658/NEMA WC70

- 2.1.1 In addition the conductor AWG size and number of strands shall meet the requirements of Table 1 of this specification.

- 2.2 Insulation - The insulation shall be ethylene propylene based rubber (EPR, EPM, or EPDM) rated for 2000 volts at 90°C continuous. Insulation shall also meet the following industrial standards as applicable:

- AREMA recommended practice, Section M, RP-588
- ICEA S-95-658/NEMA WC70.

- 2.2.1 The temperature rating of the EPR insulation shall be 90°C continuous, 110°C hot spot, and 130°C emergency overload.

- 2.2.2 In addition the insulation shall meet the thickness called for in Table 1 of this specification.

- 2.3 Jacket - The jacket shall be either heavy-duty (Tensile Strength: 1800 psi) polychloroprene (neoprene), or thermoset chlorinated polyethylene, color black. The neoprene shall meet the requirements of ICEA S-95-658/NEMA WC70.

2. CONSTRUCTION (Cont.)

2.4 The cable shall be designed in accordance with the following table:

<u>TABLE 1</u>					
CTA Item No.	Approx. AWG Size	Number of Strands	Insulation Thickness in 64th inch	Jacket Thickness in 64th inch	Maximum Cable Diameter
3014478	2	150/24	4	2	0.53"
3104471	1/0	275/24	5	3	0.72"
3104468	2/0	325/24	5	3	0.75"
3104469	3/0	450/24	5	3	0.85"
3103372	4/0	550/24	5	3	0.90"

3. APPROVED AND NON-APPROVED ITEM INFORMATION

- 3.1 Contractor shall only furnish and deliver CTA approved items under the terms of a given contract. Should a potential contractor wish to offer for CTA consideration an alternate item not currently approved, the potential contractor shall first contact the CTA Procurement Administrator or Buyer for details on the CTA's item approval process. The time required for reviewing and/or testing each item offered will vary and depend on applicable procedures. Approval of an item does not guarantee an order under a currently proposed or future contract. Upon award of a contract, each item furnished by the contractor shall be identical to the item that was approved.

4. ADDITIONAL INFORMATION

- 4.1 Bidders requiring additional information shall contact the Procurement Administrator listed on the front page of this Contract Document. Potential bidders requiring additional information from a person or persons listed in the Special Conditions must route their requests through the Procurement Administrator. Potential bidders who contact any Authority personnel other than the Procurement Administrator will be considered in violation of the provisions of the Contract Document.

Distribution: Mgr., Technical Services-Rail

GA/ib - Initial Spec. - 01/08/71

MD/md - 15th Revision – 06/05/06

CA/ca – Reviewed and Re-approved – 4/3/09

CHICAGO TRANSIT AUTHORITY

DETAIL SPECIFICATIONS

FOR

WIRE; ELECTRICAL, COPPER, TYPES THHN / THWN / THWN-2 SPECIFICATION NO. CTA 3065-08(R12)

1. SCOPE

- 1.1 This specification will describe the requirements for a contractor to furnish Type THHN, THWN, and THWN-2, 600 volt, copper electrical building wire used in new and existing Chicago Transit Authority facilities and equipment.

2. REQUIRMENTS

- 2.1 The contractor shall furnish new, general-purpose, single insulated, copper conductor electrical building wire having a nylon jacket as requested in each contract release.
- 2.2 Unless otherwise specified, the wire shall be suitable for powering lighting and equipment using a maximum nominal potential of 600 volts or less, as specified by the National Electrical Code (NEC).
- 2.3 Wire shall be furnished in the requested size (AWG, Circ mils, or kcmils), conductor strand (e.g.: 19 strands, 37 strands, or solid), colored insulator, Type (e.g.: THHN, THWN, or THWN-2), and reel length.
- 2.4 Unless otherwise specified, sizes shall comply with the American Wire Gauge (AWG) scale as defined by American Society for Testing and Materials (ASTM) standard B 258, *Standard Nominal Diameters and Cross-Sectional Areas of AWG Sizes of Solid Round Wires Used as Electrical Conductors*.
- 2.5 The wire conductor shall be annealed copper conforming to ASTM B 3, *Soft or Annealed Copper Wire*.
- 2.6 The wire shall be manufactured with the requested thermoplastic insulation type, as defined by the CTA Item description listed in the contract release.
- 2.7 The wire shall comply with Underwriters Laboratories standard UL 83, *Thermoplastic-Insulated Wires and Cables*.
- 2.7.1 Type THHN/THWN wire shall have a wet and oil location maximum operating temperature of 75° C at 600V, and a dry and damp location maximum operating temperature of 90° C at 600V.

2. REQUIREMENTS (Continued)

- 2.7.2 Type THWN-2 shall have a dry, wet, or in oil location maximum operating temperature of 90° C at 600V.
- 2.8 The insulation color shall be as indicated in the CTA Item description listed in the contract release. Coloration shall be uniform throughout the insulation length and thickness. Unless otherwise requested, the color of wire of size 8 AWG or greater shall be black.
- 2.9 The wire insulation shall resist abrasion and afford low frictional resistance during pulling through conduits and raceways. The wire shall be jacketed with abrasion, moisture, gasoline and oil resistant nylon, or a UL-listed equivalent.
- 2.10 The insulation shall uniformly and tightly envelope the conductor. After scoring it shall strip freely and not require the mechanical or chemical removal of residuals prior to installation.
- 2.11 Unless otherwise requested, stranded wire shall conform to ASTM B 8, *Concentric-Lay-Stranded Copper Conductors, Hard, Medium-Hard, or Soft*. Wire of size 10 AWG and larger shall meet class B standards; smaller wire shall meet class C.
- 2.12 Unless otherwise requested, wire of size 10 AWG, or smaller, and of length 500 feet and shorter shall be furnished in a single continuous length. Wire of size greater than 10 AWG and of length 1000 feet and shorter shall be furnished in a single continuous length. Wire of greater lengths shall be furnished in increments of the respective continuous length limit.
- 2.13 Wire of size 8 AWG and smaller shall be furnished on the wire manufacturer's non-returnable reels or spools. Wire of size greater than 8 AWG may be supplied on the manufacturer's standard returnable reels.
- 2.14 Each package shall be marked with the wire size, Type, net length, the wire manufacturer's name and product identification in addition to the CTA item number and contract number. Pursuant to requirement 2.17, identification shall be sufficient to determine applicable test results. Production lot (batch) numbers have been used to satisfy this requirement.
- 2.15 The insulation surface shall bear product identification at interval of 4 feet or less. The identification shall include, but not be limited to, manufacturer, wire size (gauge), Type (e.g.: THHN, THWN, or THWN-2), and voltage rating.

2. REQUIREMENTS (Continued)

- 2.16 The wire shall be registered with and bear the seal of Underwriters Laboratories, Incorporated (UL). Wire of size 1/0 and larger shall be compliant with "Sunlight Resistant" requirements. All three Types of wire shall comply with UL 758 Appliance Wiring Materials (AWM) and/or UL 1063 Machine Tool Wire (MTW) "Gasoline and Oil Resistant II" requirements.
- 2.17 Upon request, the contractor shall furnish test results verifying the furnished wire meets all requirements of this specification.

3. CONTRACT INFORMATION

- 3.1 Bidders should refer to the contract documents for a list of electrical wire upon which to base their proposals.
- 3.2 Bidders requiring additional information shall contact the Procurement Administrator listed on the front page of this contract document. Potential bidders requiring additional information from person(s) listed in the Special Conditions must route their requests through the Procurement Administrator. Potential bidders who contact any CTA personnel other than the Procurement Administrator will be considered in violation of the provisions of the contract document.

Distribution: Manager, Technical Support – West Shops

GHA/sp - Initial Specification - 7/22/63
MD/md - 11th Revision – 03/24/08
HHP / hhp – Reviewed – 02/10/12

CHICAGO TRANSIT AUTHORITY
DETAIL SPECIFICATION
FOR
CABLE, MULTIPLE CONDUCTOR
ELECTRIC CONTROL - TRAINLINE
SPECIFICATION NO CTA 3771-05 (R09)

1 SCOPE

- 1.1 This specification details the requirements for trainline control cable used to conduct electrical control signals between mechanically coupled Chicago Transit Authority passenger rail cars.

2 REQUIREMENTS

- 2.1 The Contractor shall furnish new, multiple conductor, electrical trainline control cable (cable) composed of the number, type and size of conductors requested in each contract release.
- 2.2 The cable shall be self-supporting, flexible, suitable for suspended movement and vibrations characteristic of high speed transportation equipment.
- 2.3 Cable conductors:
- 2.3.1 The insulation of each conductor shall have a minimum voltage rating of 1000 volts and a minimum temperature rating of 110°C (230°F) as determined by American Society for Testing and Materials (ASTM) standard D 470, *Crosslinked Insulations and Jackets for Wire and Cable*. Insulation thickness for 12 AWG conductors shall be not less than 30 mils (0.030 inches). The overall nominal diameter of the insulated conductor shall be approximately 0.162".
- 2.3.2 All insulation shall be color coded in accord with Insulated Cable Engineers Association (ICEA) publication S-95-658 / National Electrical Manufacturers Association (NEMA) standard WC70, *Nonshielded 0-2 kV Cables*, or ICEA S-93-639 / NEMA WC74, *Shielded Power Cable 5-46kV*.
- 2.3.3 Unshielded conductors shall be insulated 12 American Wire Gage (AWG), stranded, soft copper. The copper shall be drawn and annealed per American Society for Testing and Materials (ASTM) standard B 3, *Soft or Annealed Copper Wire*. Stranding shall consist of sixty-five (65) 30 AWG wires arranged per ASTM B 174, *Bunch-Stranded Copper Conductors for Electrical Conductors*, class K. Each conductor shall have a nominal diameter of 0.101 inches and a nominal direct current resistance of 1.62 ohms per thousand feet at a temperature of 20°C (68°F).

2 DETAILED REQUIREMENTS (Cont.)

- 2.3.4 Shielded conductors shall be 16 AWG or larger.
- 2.3.5 Insulation thickness for 12 AWG conductors shall be not less than 30 mils (0.030 inches). The overall nominal diameter of the insulated conductor shall be approximately 0.162".
- 2.3.6 Conductors shall be insulated with thermosetting, flame retardant, cross-linked polyolefin. The insulation shall be tight fitting to the conductor strands and shall strip freely. The insulation requirements shall meet the applicable requirements of ICEA S-95-658 / NEMA WC70, *Nonshielded 0-2 kV Cables*, or ICEA S-93-639 / NEMA WC74, *Shielded Power Cable 5-46kV*.
- 2.4 Cable assembly:
 - 2.4.1 The cable lay shall be constructed in accord with ICEA S-95-658 / NEMA WC70, *Nonshielded 0-2 kV Cables*, or ICEA S-93-639 / NEMA WC74, *Shielded Power Cable 5-46kV*.
 - 2.4.2 The cable conductors shall be formed into a cylindrical core, tape wrapped with polyethylene terephthalate (eg. Mylar™) and covered with a heavy duty, self-extinguishing rubber jacket which shall be resistant to abrasion, cut-through, notch propagation, impact, voltage, moisture, fire, oils, cleaners, chemicals and heat.
 - 2.4.3 The cable jacket shall be composed of black heavy-duty polychloroprene, conforming ASTM D 4247, *General-Purpose, Black Heavy-Duty, and Black Extra-Heavy-Duty Polychloroprene Jackets for Wire and Cable*. The jacket shall have a minimum temperature rating of 90°C (194°F) as determined by ASTM D 470.
 - 2.4.4 An identification tape marked with the cable manufacturer's name and, desirably, the year of manufacture shall be included immediately below the cable jacket. The markings shall appear at approximately one foot intervals.
- 2.5 The assembled cable construction shall not restrict the nominal movement of the insulated conductors within the jacket when the cable is flexed in its intended use.
- 2.6 The cable ends shall be suitably protected, waterproofed and securely fastened to prevent damage during shipment.
- 2.7 Unless otherwise requested, the Contractor shall furnish each requested cable length as a single, continuous strand.

2 DETAILED REQUIREMENTS (Cont.)

- 2.8 The cable shall be supplied on the manufacturer's non-returnable reels. Each reel shall be marked with the cable type, size, length, weight, the manufacturer's name or logo, and CTA's contract release and item numbers. The manufacturer's original identification and labeling are included in this requirement. Refer to the contract documents for additional labeling requirements.
- 2.9 The version of each standard, publication and code referenced herein that is current on the date of the invitation for bid shall apply.

3 CONTRACT INFORMATION

- 3.1 Refer to the contract documents for a list of trainline control cables upon which Bidders are to base their bids. The conductor quantity, size, stranding, quantity, and shielding requirements of each cable are detailed therein.
- 3.2 Bidders shall identify the original cable manufacturer and product designation of each proposed cable with their bid or within five days of CTA's request.
- 3.3 CTA reserves the right to request, review and evaluate documentation and samples proposed trainline electrical control cable without cost or obligation. At the CTA's discretion, samples may be evaluated using one or more of the following methods: disassembly, installation, simulated service, in-service, nondestructive and destructive tests.
- 3.4 Potential bidders proposing to offer parts, products, or equipment as equivalent to that described in this specification shall refer to the following sections and articles of the contract documents:
- Contract for Supplies Requirements for Bidding and Instructions to Bidders:
 - Article 14: Catalogs
 - Article 15: Trade Names
 - Standard Government Requirements for Material and Equipment Purchases:
 - Article I: Specific Materials and/or Specific Equipment
- 3.5 Bidders requiring additional information shall contact the Procurement Administrator listed on the front page of this contract document. Potential bidders requiring additional information from person(s) listed in the special conditions must route their requests through the Procurement Administrator. Potential bidders who contact any CTA personnel other than the Procurement Administrator will be considered in violation of the provisions of the contract document

CTA 3771-05 (R09)

Distribution: Manager, Rail Technical Services

GHA/jsm - Initial Spec. - 9/22/72

CE/che – 12th Revision - 6/2/05

CA/ca – Reviewed and Re-approved – 3/3/09

CHICAGO TRANSIT AUTHORITY

DETAIL SPECIFICATION FOR

CABLE: ELECTRIC, 150 DEGREES C, COPPER,
ETFE (TEFZEL®) INSULATED, 1000V

SPECIFICATION NO. CTA 3789-06(R09)

1. SCOPE

- 1.1 This specification covers the requirements for 150 degrees C ETFE (TEFZEL®) insulated cable, in various colored insulation and American Wire Gauge (AWG), used for Automatic Train Control (ATC) and signal wiring on CTA rail cars and track signals.

2. GENERAL REQUIREMENTS

- 2.1 Cable furnished shall be single conductor, flexible in nature, self-extinguishing and have good resistance properties to abrasion, cut through, notch propagation, impact, voltage, moisture, heat, and chemicals.
- 2.2 Because of its insulation thickness, the cable to be furnished is not standard, and is considered of special design.

3. DETAILED REQUIREMENTS

- 3.1. Conductor - The cable conductor shall meet the following requirements

- 3.1.1 The conductor shall be soft annealed copper as per ASTM B3-01
- 3.1.2 The conductor shall be tin coated per ASTM B33-04
- 3.1.3 The stranding shall be in accordance with ASTM B286-02 and as called for in Table 1, located in Section 9 of this specification.

- 3.2. Insulation - The cable insulation shall be extruded ethylene tetrafluoroethylene fluoropolymer (ETFE). An example of an insulation that meets the following requirements is DuPont's TEFZEL®.

- 3.2.1 Insulation shall strip cleanly from the conductor.
- 3.2.2 The insulation thickness shall be not less than called for in Table 1, located in Section 9 of this specification.

3. DETAILED REQUIREMENTS (Cont.)

3.2 Insulation (Cont.)

- 3.2.3 The cable insulation be inert and be rated for 1000 VDC continuous operation at 150 degrees C.
- 3.2.4 The cable insulation resistance measured on same lengths of each size shall not be less than 1.000 megohms per thousand feet.
- 3.2.5 The insulation shall have the following minimum physical properties when tested in accordance with ASTM D638-03:
- | | |
|-------------------|-----------|
| Tensile Strength: | 5,500 PSI |
| Elongation | 100% |
- 3.2.6 The insulation shall be colored throughout, and the colors shall be durable and shall have no deleterious effect on the finished products.
- 3.2.7 The ETFE material shall comply with ASTM D3159-06: ETFE-Fluoroplastic Molding and Extrusion Materials.

4. TESTING

- 4.1 The manufacturer, if requested, shall furnish certified evidence that the cable proposed has passed the following test requirements.
- 4.2 The insulated wire shall be subjected to ninety-six (96) hours in an air oven at 200 degrees C. Tensile strength and elongation of the insulation shall not drop below 85% of the original values.
- 4.3 Bend Test - The insulated wires shall withstand the following bend test:
- 4.3.1 Test specimens shall be cooled to minus 65 degrees C for four (4) hours. The test specimens shall then be wound around a mandrel as specified in Table 2, located in Section 9 of this specification, while still in the cold chamber. The winding shall be done at a rate of one turn in four seconds, until at least six turns are wound on the mandrel. The wire shall then be re-wrapped in the opposite direction on the mandrel. After this test, the wire shall be examined for insulation cracks or damage and brought to room temperature, plus 25 Degrees C. The coiled or bent section shall be immersed in tap water for one (1) hour at room temperature (plus 25 degrees C.), and then be subjected to, and withstand, 3,000 volts AC RMS for one (1) minute.
- 4.4 Weight Loss - The insulated wires shall not exceed one percent (1%) weight loss when tested subjected to a temperature of plus 130 degrees C for 500 hours.

5. PACKAGING

- 5.1 Cable shall be supplied on manufacturer's non-returnable reels or spools. Each reel or spool shall be indelibly marked in legible characters in a suitable location, the following information: CTA item number, order number, the name of the manufacturer, type of cable, its size and length.
- 5.2 Each reel or spool shall be continuous, without splices unless otherwise approved. Unless otherwise called for or approved, reel or spool length shall not be less than 500 feet or greater than 1,000 feet.

6. TEST REPORTS

- 6.1 When called for in the Contract Documents, the Contractor shall provide certified test reports of all tests performed, as called for in Section 4 of this specification, with the final test results.

7. APPROVED AND NON-APPROVED ITEM INFORMATION

- 7.1 Contractor shall only furnish and deliver CTA approved items under the terms of a given contract. Should a potential contractor wish to offer for CTA consideration an alternate item not currently approved, the potential contractor shall first contact the CTA Procurement Administrator or Buyer for details on the CTA's item approval process. The time required for reviewing and/or testing each item offered will vary and depend on applicable procedures. Approval of an item does not guarantee an order under a currently proposed or future contract. Upon award of a contract, each item furnished by the contractor shall be identical to the item that was approved.

8. ADDITIONAL INFORMATION FOR POTENTIAL BIDDERS

- 8.1 Bidders requiring additional information shall contact the Procurement Administrator listed on the front page of this Contract Document. Potential Bidders requiring addition information from a person or persons listed in the Special Conditions must route their requests through the Procurement Administrator. Potential Bidders who contact any Authority personnel other than the Procurement Administrator will be considered in violation of the provisions of the Contract Document.

9 **TABLES**

TABLE 1 Cable Physical Requirements			
SIZE OF CONDUCTOR	MINIMUM NO. of STRANDS	INSULATION MINIMUM THICKNESS in INCHES	NOMINAL O.D. in INCHES
16 AWG	26	0.025	0.113
12 AWG	37	0.030	0.146
10 AWG	104	0.030	0.186
8 AWG	133	0.035	0.244

TABLE 2 Cold Bend Mandrels	
Nominal Conductor Size (AWG)	Mandrel Diameter (Inches)
16	0.075
12/10	2.0
8	3.0

DISTRIBUTION: Mgr., Technical Services-Rail

Initial Spec. - 7/30/80
MD/md - 10th Revision - 09/13/06
CA/ca – Reviewed and re-approved – 4/10/09

CHICAGO TRANSIT AUTHORITY

DETAIL SPECIFICATION FOR

CABLE; ELECTRIC, LOCOMOTIVE-CAR, COPPER, IRRADIATED X-LINKED POLYOLEFIN INSULATED, 110°C, 2000 VOLTS

SPECIFICATION NO. CTA 3793-06(R12)

1. SCOPE

- 1.1 This specification covers the requirements for supplying a 2,000volt, 110° C, irradiated cross-linked polyolefin insulated, locomotive-car cable used on the Chicago Transit Authority's Rapid Transit Cars.

2. GENERAL REQUIREMENTS

- 2.1 Cable shall be rated not less than 110° C continuous duty and have exceptional qualities against fire. The insulation shall be thermosetting from an irradiated cross-linked polyolefin base. The insulation shall also have oil, crush, abrasion, penetration and moisture resistance. Due to the number of strands in the conductor, the cable is relatively flexible. The conductor shall be coated.
- 2.2 This Specification is intended to be descriptive, but not restrictive, and is solely for the purpose of indicating the type and quality of 2,000volt, 110° C, irradiated cross-linked polyolefin insulated, locomotive-car cable, which meets the requirements of the CTA. Should a manufacturer's name, a brand name, a model number etc. be used in this specification, please add the words "or equal" immediately afterwards.
- 2.3 Rockbestos/Suprenant's "Exane®" (Spec. DAA-1068A) and Brand-Rex "Polyrad"(Specification. No. BR-780) are used to establish the quality level of cable which complies with this specification and meets the approval of the CTA.

3. CHARACTERISTICS AND CONSTRUCTION

- 3.1 The conductor shall be soft annealed tinned copper and shall meet the requirements of ASTM B33-04. Conductor stranding shall be in accordance with Table 1 of this Specification.
- 3.2 A paper or other separator may be used if required.

3. CHARACTERISTICS AND CONSTRUCTION (cont'd.)

- 3.3 The insulation thickness shall comply with Table 1 of this specification. This Specification may be used for other conductor sizes by giving the necessary respective data in the Contract Documents.

TABLE 1

<u>APPROX. SIZE AWG</u>	<u>NO. OF STRANDS AND STRAND AWG SIZE</u>	<u>INSULATION THICKNESS IN MILS</u>
16	19/29	45
14	19/27	45
12	19/25	45
10	27/24	45
8	37/24	55
6	61/24	55
5	91/24	55
4	105/24	55
3	125/24	55
2	150/24	55
1	225/24	65
1/0	275/24	65
2/0	325/24	65
3/0	450/24	65
4/0	550/24	65
262 MCM	650/24	75

4. INSULATION

- 4.1 The Insulation shall be irradiated cross-linked polyolefin. The insulation shall be rated at 110°C and shall be extruded.
- 4.2 The insulation shall strip cleanly.
- 4.3 The following minimum values illustrate the quality of cable called for by this Specification. Test results shall be guaranteed:

4. INSULATION (cont'd.)4.3.1 Physical PropertiesVALUES

- | | | |
|----|--|------|
| A. | Original | |
| 1) | Tensile, Min. PSI | 1800 |
| 2) | Elongation at rupture, Min. % | 250 |
| B. | Aged Air Oven 7 days @ 158°C ±2°C
for 168 hours | |
| 1) | Tensile Strength, Min. %
of unaged value | 90 |
| 2) | Elongation, Min. % of unaged value | 50 |

4.3.2 Electrical PropertiesVALUES

- | | | |
|----|---|-------|
| A. | Insulation Resistance Constant - 15.6°C.
(60°F) | 10000 |
| B. | Voltage tests - The insulated conductors shall withstand the test voltages AC or DC in ICEA S-66-524 (1992, REV 1) Withdrawn NEMA WC70-99 for 5 minutes after 6 hours immersion in water or shall withstand impulse dielectric test using an impulse test Voltage of 18.0 KV. | |

4.3.3 Moisture Resistance

- | | | |
|----|---|-----|
| A. | Gravimetric method @ 70°C ±2°C
Mg/in ² maximum | 8.0 |
| B. | Electrical Method (ICEA S-66-524, 1992, rev 1) Withdrawn NEMA WC70-99, Increase in Capacitance, maximum percent | |
| 1) | 1-14 days | 3.0 |
| 2) | 7-14 days | 1.5 |
| C. | Stability Factor - % maximum | |
| 1) | 14 days | 1.0 |
| D. | SIC (1 day) maximum | 6.0 |

4.4 Ozone: (Test Method ICEA S-19-81 (1994, Rev 1) Withdrawn

- | | | |
|----|---|-----------|
| A. | 0.030% Concentration by volume
@ 90°C ± 2°C, after 24 hours exposure | No Cracks |
|----|---|-----------|

4. INSULATION (cont'd.)

4.5 Cold Bend

- 4.5.1 When tested in accordance with ICEA S-61-402 (1992) Withdrawn NEMA WC70-99 except that the temperature is $-65^{\circ}\text{F} \pm 3^{\circ}\text{C}$, the insulation shall not exhibit cracks upon unaided visual examination and shall withstand the dielectric test.

4.6 Hot Oil Resistance

- 4.6.1 In ASTM oil #2 @ $150^{\circ}\text{C} \pm 2^{\circ}\text{C}$ for 96 hours, the cable diameter increase shall not exceed 40%. The cable shall show no cracks, ruptures or splits.

4.7 Flammability

- 4.7.1 The Vertical Tray Flame test shall be in accordance with ICEA S-19-81 (1994, Rev 1) Withdrawn except that the flame must extinguish before the next application of flame is applied. The maximum flame time after each application shall be 3 seconds.

5. APPROVED AND NON-APPROVED ITEM INFORMATION

- 5.1 Contractor shall only furnish and deliver CTA approved items under the terms of a given contract. Should a potential contractor wish to offer for CTA consideration an alternate item not currently approved, the potential contractor shall first contact the CTA Procurement Administrator or Buyer for details on the CTA's item approval process. The time required for reviewing and/or testing each item offered will vary and depend on applicable procedures. Approval of an item does not guarantee an order under a currently proposed or future contract. Upon award of a contract, each item furnished by the contractor shall be identical to the item that was approved

6. ADDITIONAL INFORMATION FOR POTENTIAL BIDDERS

- 6.1 Bidders requiring additional information shall contact the Procurement Administrator listed on the front page of this Contract Document. Potential Bidders requiring addition information from a person or persons listed in the Special Conditions must route their requests through the Procurement Administrator. Potential Bidders who contact any Authority personnel other than the Procurement Administrator will be considered in violation of the provisions of the Contract Document.

JDC/dp - Initial Spec. - 1/16/69
SAS/sas – 11th Revision – 12/23/06
HHP/hhp – Reviewed – 02/09/12

CHICAGO TRANSIT AUTHORITY
DETAIL SPECIFICATION
FOR
LOCAL AREA NETWORK (LAN) CABLE: CATEGORY 6
SPECIFICATION NO. CTA 5285-08(R12)

1. SCOPE

- 1.1** This specification covers the requirements for (CMR, CMP or OSP) rated electrical conductor cable used in local computer and communication network systems at numerous Chicago Transit Authority (CTA) facilities.

2. DETAIL REQUIREMENTS

- 2.1** The cable shall be unshielded, (CMR, CMP or OSP) rated, jacketed conductor cable. The standards of the organizations listed in this requirement. The latest version of the standards shall apply.

- 2.1.1** CMR and CMP rated shall Meet or exceed National Electrical Code (NEC), Underwriter's Laboratory, Incorporated (UL 444) Fire Resistance Ratings: CMP (NFPA 262), CMR (UL1666)

- 2.1.2** Electronic Industries Association / Telecommunications Industry Association (EIA/TIA).

- Meet or exceed Bandwidth: 10000 Mbps Gigabit Ethernet
- Meet or exceed ANSI/TIA/EIA 568-B.2-1, verified to Category 6

- 2.1.3** Meet or exceed ISO/IEC 11801 (Category 6). OSP shall also meet or exceed ICEA S-102-700 (category 6) and MIL-C-24640A Water Penetration Requirement.

- 2.2** The cable shall meet the following construction, physical and electrical characteristics requirements:

- Conductor: 23 AWG to 24 AWG Solid Annealed Bare Copper
- Conductor Insulation: Thermoplastic (CMR/CMP), Polyolefin (OSP)
- Pairs: Color coded singles twisted into pairs
- Cable: (4) Twisted Pairs twisted together to form a cable core

2. DETAIL REQUIREMENTS (Cont.)

2.2 (Cont.)

1. Blue - White/Blue
 2. Orange – White/Orange
 3. Green – White/Green
 4. Brown – White/Brown
- Spectral Bandwidth: 250 MHz
 - Characteristic Impedance: $100\Omega \pm 15\%$
 - Capacitance, Mutual: 5.6 nF/100m (nom.)
 - Dielectric Withstanding, Min.: 1500V
 - Voltage Rating, Max.: 300V
 - D.C. Resistance, Max.: 9.38 Ohms/100m
 - Return Loss:
 - 1 - 10 Mhz: 20 - 25 dB (min.)
 - 10 - 20 Mhz: 25 dB (min.)
 - 20 - 250 Mhz: 25 - 17.3 dB (min.)
 - PS NEXT: 1 - 250 Mhz = 72.3 - 36.3 dB (min.)
 - NEXT: 1 - 250 Mhz = 74.3 – 38.3 dB (min.)
 - PS ELFEXT: 1 - 250 Mhz = 64.8 – 16.8 dB (min.)
 - ELFEXT: 1 - 250 Mhz = 67.8 – 19.8 dB (min.)
 - ATTENUATION: 1 - 250 Mhz = 2.0 – 32.8 (dB/100m) (max.)
 - PROP. DELAY: 1 - 250 Mhz = 570 – 536 (ns @ 100m) min.
 - LCL/TCL: 1 - 250 Mhz = <40dB min.
 - SKEW: < 45 (ns @ 100m)

2. DETAIL REQUIREMENTS (Cont.)

2.2.1 CMR (Communications Riser) cable

- Outer Jacket: Blue, Flame retardant Polyvinyl Chloride (PVC)
- Riser rated
- Tape or cross-web separator

2.2.2 CMP (Communications Plenum) cable

- Outer Jacket: White, Flame retardant Polyvinyl Chloride (PVC), low smoke
- Plenum-rated
- Tape or cross-web separator

2.2.3 OSP (Outside Plant) cable

- Jacket: Black, Abrasion & UV resistant Polyethylene (PE)
- Harsh environment: Outside & buried installations
- Cross web separator
- Flooding Compound: waterproof gel
- Temperature Rating: -45° C to +80° C (Operation)
- Temperature Rating: -30° C to +60° C (Installation)

2.3 CMR and CMP rated cables shall incorporate a nonconductive ripcord of sufficient strength to permit stripping the cable jacket without the use of tools. The ripcord shall extend throughout the entire cable length.

2.4 Unless otherwise requested by the Authority, cables shall be packaged as a single continuous piece. The packaging shall minimize cable unraveling and entanglement when extracting the cable as a continuous strand. Cable ends shall be secured to prevent unraveling during transportation. CMR and CMP cables shall be provided in a reel box or boxed coil. Cable shall have footage markings from 1000 feet down to 0 feet for ease of determining remaining cable length.

2.5 Cable spools, if furnished, shall be non-returnable.

2. DETAIL REQUIREMENTS (Cont.)

- 2.6 The cable jacket shall bear product identification at equal intervals (one meter maximum) throughout the cable length. The identification shall be permanent and shall include the number and size of conductors, UL rating, EIA/TIA category, length markings (in feet and/or meters) and manufacturer's name or logo.

3. APPROVED AND NON-APPROVED ITEM INFORMATION

- 3.1 Contractor shall only furnish and deliver CTA approved items under the terms of a given contract. Should a potential contractor wish to offer for CTA consideration an alternate item not currently approved, the potential contractor shall first contact the CTA Procurement Administrator or Buyer for details on the CTA's item approval process. The time required for reviewing and/or testing each item offered will vary and depend on applicable procedures. Approval of an item does not guarantee an order under a currently proposed or future contract. Upon award of a contract, each item furnished by the contractor shall be identical to the item that was approved.

4. ADDITIONAL INFORMATION FOR POTENTIAL BIDDERS

- 4.1 Bidders requiring additional information shall contact the Procurement Administrator listed on the front page of this contract document. Potential bidders requiring information from person(s) listed in the Special Conditions must route their requests through the Procurement Administrator. Potential bidders who contact any Authority personnel other than the Procurement Administrator will be considered in violation of the provisions of the contract document.

Distribution: Mgr., Network & Communications
Systems Maintenance, WS

CE/che - Initial Specification – 7/18/02
JSC/jsc – 2nd Revision – 02/5/08
HHP/hhp – Reviewed – 02/09/12

CHICAGO TRANSIT AUTHORITY

DETAILED SPECIFICATION FOR TRAINLINE JUMPER CABLE

SPECIFICATION NO CTA 7144-06 (R11) (CTA ITEM NO. 3102683)

1. SCOPE

- 1.1 This specification covers the requirements for the 21 Conductor #2 Jumper Cable used on the Chicago Transit Authority's 2400 Series Rapid Transit Cars.

2. REQUIREMENTS

- 2.1 The 21 conductor Trainline Jumper Cable shall meet the following requirements:

2.1.1 Nine (9) single conductor cables

- 2.1.1.1 Conductor – Each conductor shall be No. 12 AWG 65/30 stranded tinned copper and shall meet the requirements of ASTM B11-94.

- 2.1.1.2 Insulation – The insulation shall be flame-retardant irradiated cross-linked polyolefin and shall have a nominal thickness of 0.030". The cross-linked polyolefin shall meet UL and ICEA requirements

- 2.1.1.3 Nominal diameter of single conductor: 0.154

2.1.2 Two (2) twisted pair cables

- 2.1.2.1 Conductor – Each conductor shall be No. 12 AWG 65/30 stranded tinned copper and shall meet the requirements of ASTM B11-94.

- 2.1.2.2 Insulation – The insulation shall be flame-retardant irradiated cross-linked polyolefin and shall have a nominal thickness of 0.030". The cross-linked polyolefin shall meet UL and ICEA requirements

- 2.1.2.3 Nominal diameter of single conductor: 0.154

- 2.1.2.4 Each pair shall be twisted together with a 4.0" nominal left hand lay. Nominal outside diameter: 0.308".

2 REQUIREMENTS (Contd.)

2.1.3 Four (4) Shielded Jacketed Singles

- 2.1.3.1 Conductor – Each conductor shall be No. 12 AWG 65/30 stranded tinned copper and shall meet the requirements of ASTM B11-94.
- 2.1.3.2 Insulation – The insulation shall be flame-retardant irradiated cross-linked polyolefin and shall have a nominal thickness of 0.030". The cross-linked polyolefin shall meet UL and ICEA requirements
- 2.1.3.3 Nominal diameter of single conductor: 0.154
- 2.1.3.4 Shield – The shield shall be No. 36 gauge tinned copper, 85% minimum coverage. Nominal outside diameter: 0.176".
- 2.1.3.5 Drain Wire: #14Awg 19/27 stranded tinned copper and shall meet the requirements of ASTM B11-94.
- 2.1.3.6 Jacket – The jacket shall be flame-retardant irradiated cross-linked polyolefin and shall have a nominal thickness of 0.017". The cross-linked polyolefin shall meet UL and ICEA requirements. Color: Dark Gray. Nominal Outside Diameter: 0.210.

2.1.4 Two (2) Twisted Shielded Jacketed Pairs

- 2.1.4.1 Conductor – Each conductor shall be No. 12 AWG 65/30 stranded tinned copper and shall meet the requirements of ASTM B11-94.
- 2.1.4.2 Insulation – The insulation shall be flame-retardant irradiated cross-linked polyolefin and shall have a nominal thickness of 0.030". The cross-linked polyolefin shall meet UL and ICEA requirements
- 2.1.4.3 Nominal diameter of single conductor: 0.154
- 2.1.4.4 Each pair shall be twisted together with a 4.0" nominal left hand lay. Nominal outside diameter: 0.330".
- 2.1.4.5 Shield – The shield shall be No. 36 gauge tinned copper, 85% minimum coverage. Nominal outside diameter: 0.176".
- 2.1.4.6 Drain Wire: #14Awg 19/27 stranded tinned copper and shall meet the requirements of ASTM B11-94.

2. REQUIREMENTS (Contd.)

- 2.1.4.7 Jacket – The jacket shall be flame-retardant irradiated cross-linked polyolefin and shall have a nominal thickness of 0.017". The cross-linked polyolefin shall meet UL and ICEA requirements. Color: Dark Gray. Nominal Outside Diameter 0.210.
- 2.1.5 The filler material shall be flame retardant polypropylene and shall meet NEMA and UL standards

3. ASSEMBLY

- 3.1 The internal core of the assembled cable shall be the two pairs twisted together with a 6.0" nominal left hand lay. Nominal Outside Diameter: 0.524". The remaining part of the core shall contain all other components twisted together with a 14.0" nominal left hand lay. Nominal Outside Diameter: 1.212".
- 3.2 Binder: Mylar tape wrap with 25% overlap. Nominal Outside Diameter 1.220"
- 3.3 Outer Jacket: The outer jacket shall be black heavy duty neoprene meeting the requirements of ASTM D4247-98. The thickness of the jacket shall be .125" nominal.
- 3.4 The finished outside diameter shall be 1.47" +/- 0.045".

4. EXAMPLE

- 4.1 An example of a trainline jumper cable that meets the requirements of this specification is Rockbestos- Suprenant Cable Corp Part No. DAC21ABAA.

5. APPROVED AND NON-APPROVED ITEM INFORMATION

- 5.1 Contractor shall only furnish and deliver CTA approved items under the terms of a given contract. Should a potential contractor wish to offer for CTA consideration an alternate item not currently approved, the potential contractor shall first contact the CTA Procurement Administrator or Buyer for details on the CTA's item approval process. The time required for reviewing and/or testing each item offered will vary and depend on applicable procedures. Approval of an item does not guarantee an order under a currently proposed or future contract. Upon award of a contract, each item furnished by the contractor shall be identical to the item that was approved.

6. ADDITIONAL INFORMATION FOR POTENTIAL BIDDERS

- 6.1 Bidders requiring additional information shall contact the Procurement Administrator listed on the front page of this Contract document. Potential bidders requiring additional information from a person or persons listed in the special Conditions must route their requests through the Procurement Administrator. Potential bidders who contact any CTA personnel other than the Procurement Administrator will be considered in violation of the provisions of the Contract Document.

DISTRIBUTION: Mgr., Technical Services - Rail

AB/el – Initial Specification – 08/19/00

SAS/sas – 3rd Revision – 01/28/06

CA/ca – Reviewed and Reapproved – 2/10/2011

CHICAGO TRANSIT AUTHORITY
DETAILED SPECIFICATION
FOR
CABLE: ELECTRIC, UL TYPE SJOOW PORTABLE POWER
SPECIFICATION NO. 7676-06 (R11)
CTA ITEM NO. 3104460

1. SCOPE

- 1.1 This specification covers a UL Type SJOOW electric portable power cable; CTA Item No. 3104460; for various electrical applications throughout the Chicago Transit Authority that require a light duty type cable suitable for damp locations.

2. DETAILED REQUIREMENTS

- 2.1 Cable furnished shall meet the following salient characteristics.

- 2.1.1 No of Conductors: 2
- 2.1.2 Conductor: Stranded soft annealed copper per ASTM B174 (latest edition).
- 2.1.3 Size of conductor: 18AWG.
- 2.1.4 Stranding: 16/30
- 2.1.5 Insulation: Rubber or EPDM
- 2.1.6 Nominal thickness of Insulation: 0.030"
- 2.1.7 Insulation Color Coding: Black, white
- 2.1.8 Cotton sleeve separator
- 2.1.9 Jacket: Neoprene or CPE, Oil Resistant, for indoor/outdoor use
- 2.1.10 Nominal thickness of Jacket: 0.030"
- 2.1.11 Nominal O.D.: 0.280" to 0.285"
- 2.1.12 Jacket Color: Black
- 2.1.13 Voltage Rating: 300V
- 2.1.14 Temperature Rating: 90°C
- 2.1.15 UL approved

3. MARKINGS

- 3.1 The outer jacket of the electrical portable power cable furnished shall be legibly marked at least once on each five-foot length of cable, with the following information as a minimum: the name of the manufacturer, UL Type, number of conductors, conductor wire gauge, voltage rating, temperature rating, and all applicable industrial standards the cable is in compliance with.
- 3.2 Markings shall be applied using a contrasting indelible media.

4. ADDITIONAL INFORMATION FOR POTENTIAL BIDDERS

- 4.1 Bidders requiring additional information shall contact the Procurement Administrator listed on the front page of this Contract Document. Potential Bidders requiring additional information from a person or persons listed in the Special Conditions must route their requests through the Procurement Administrator. Potential Bidders who contact any Authority personnel other than the Procurement Administrator will be considered in violation of the provisions of the Contract Document.

DISTRIBUTION: Mgr., Technical Services-Rail

JEV/jev – Initial Specification – 03/25/02
MD/md - 1st Revision - 04/03/06
CA/ca – Reviewed and Reapproved – 2/10/2011

CHICAGO TRANSIT AUTHORITY

DETAIL SPECIFICATION FOR

**CABLE: ELECTRIC, RAPID TRANSIT TYPE, COPPER,
IRRADIATED CROSS-LINKED POLYOLEFIN INSULATED, 110°C, 600 VOLTS**

SPECIFICATION NO. CTA 7677-06 (R09)

1. SCOPE

- 1.1 This specification covers rapid transit type cable having a copper conductor size of 16 AWG thru 262 MCM, and an irradiated cross-linked polyolefin (XLPO) insulation, for use on the Chicago Transit Authority's Rapid Transit Cars.

2. DETAILED REQUIREMENTS

- 2.1 The conductor of the cable furnished shall be rated for not less than 110°C continuous duty and have exceptional qualities against fire.

- 2.2 The insulation shall be thermosetting made from an XLPO base. The insulation shall also be oil, crush, abrasion, penetration and moisture resistant. In addition the cable insulation shall be tested and meet the requirements specified in Section 3 of this specification titled Testing and Test Methods.

- 2.2.1 The insulation shall strip easily.

- 2.3 The conductor shall be tinned annealed bare copper per ASTM B 33, either bunch stranded per ASTM B 174, or concentric stranded per ASTM B 8. Conductor shall also be in accordance with the following industrial standards as applicable:

- AAR Specification 589
- AREMA recommended practice Section M, RP-588
- ICEA S-95-658/NEMA WC70

- 2.3.1 In addition the conductor AWG size and number of strands shall meet the requirements of Table 1 in Section 6 of this specification titled Conductor Information.

NOTE: This specification may be used for other conductor sizes by giving the necessary respective data in the Contract Documents.

- 2.3.2 A paper or other separator may be used if required.

3. TESTING AND TEST METHODS

- 3.1 When tested per the latest version of ICEA S-95-658/NEMA WC 70, Section 6 - Testing and Test Methods, the cable insulation shall meet the following requirements.

<u>Physical Properties</u>	<u>VALUES</u>
A. Original	
1) Tensile, Min. PSI	1800
2) Elongation at rupture, Min. %	250
B. Aged Air Oven 7 days @ 158°C ± 2°C for 168 hours	
1) Tensile Strength, Min. % of unaged value	90
2) Elongation, Min. % of unaged value	50

3.2 <u>Electrical Properties</u>	<u>VALUES</u>
A. Insulation Resistance Constant: 15.6°C (60°F)	10000
B. Voltage tests - The insulated conductors shall withstand the test voltages AC or DC for 5 minutes after 6 hours immersion in water, or shall withstand impulse dielectric test using an impulse test voltage of 18.0 KV.	

3.3 Moisture Resistance

A. Gravimetric method @ 70° ± 2°C Mg/in ⁵ , maximum	8.0
B. Electrical Method Increase in Capacitance, maximum percent	
1) 1-14 days	3.0
2) 7-14 days	1.5
C. Stability Factor after 14 days	1.0
1) 1-14 days, % maximum	0.5
D. SIC (1 day) maximum	6.0

3.4 Cold Bend

- 3.4.1 When tested in accordance with ICEA T-27-581/NEMA WC 53, except that the temperature shall be -65°F (85°C), the insulation shall not exhibit cracks upon unaided visual examination and shall withstand the dielectric test.

3. TESTING AND TEST METHODS (Cont.)

3.5 Hot Oil Resistance

- 3.5.1 In ASTM oil #2 @ 150°C ± 2°C for 96 hours, the cable diameter increase shall not exceed 40%. The cable shall show no cracks, ruptures or splits.

3.6 Flammability

- 3.6.1 When the cable insulation is tested per the Vertical Flame test, the flame must extinguish before the next application of flame is applied. The maximum flame time after each application shall be 3 seconds.

4. APPROVED AND NON-APPROVED ITEM INFORMATION

- 4.1 Contractor shall only furnish and deliver CTA approved rapid transit XLPO insulated cable under the terms of a given contract. Should a potential contractor wish to offer for CTA consideration an alternate cable not currently approved, the potential contractor shall first contact the CTA Procurement Administrator or Buyer for details on the CTA's item approval process. The time required for reviewing and/or testing each cable offered will vary and depend on applicable procedures. Approval of an alternate cable does not guarantee an order under a currently proposed or future contract. Upon award of a contract, each cable furnished by the contractor shall be identical to the cable that was approved.

5. ADDITIONAL INFORMATION FOR POTENTIAL BIDDERS

- 5.1 Bidders requiring additional information shall contact the Procurement Administrator listed on the front page of this Contract Document. Potential Bidders requiring addition information from a person or persons listed in the Special Conditions must route their requests through the Procurement Administrator. Potential Bidders who contact any Authority personnel other than the Procurement Administrator will be considered in violation of the provisions of the Contract Document.

6. CONDUCTOR INFORMATION

Table 1				
CTA Item No.	Approx. AWG Size	Number of Strands	Insulation Thickness in Inches	Nominal Cable O.D. in Inches
3104470	16	19/29	0.030	0.114
-----	14	19/27	0.030	0.127
-----	12	19/25	0.030	0.146
-----	10	27/24	0.030	0.183
-----	8	37/24	0.045	0.231
-----	6	61/24	0.045	0.280
-----	5	91/24	0.045	0.324
-----	4	105/24	0.045	0.340
-----	3	125/24	0.045	0.375
-----	2	150/24	0.045	0.410
-----	1	225/24	0.055	0.495
-----	1/0	275/24	0.055	0.530
-----	2/0	325/24	0.055	0.580
-----	3/0	450/24	0.055	0.660
-----	4/0	550/24	0.055	0.732
-----	262 MCM	650/24	0.065	0.794

DISTRIBUTION: Mgr., Technical Services-Rail

JEV/jev - Initial Spec. - 03/22/02
MD/md – 2nd Revision – 06/08/06
CA/ca – Reviewed and re-approved – 3/3/09

CHICAGO TRANSIT AUTHORITY

DETAILED SPECIFICATION FOR

**CABLE: CONTROL, MULTI-CONDUCTOR, COPPER, TEFLON
INSULATED, BRAID SHIELD, TAPE WRAPPED JACKET, 600V**

SPECIFICATION NO CTA 7678-06 (R11)

1. SCOPE

- 1.1 This specification covers the requirements for multi-conductor High Temperature Control and Instrumentation Cable. The cable is used on CTA's Rapid Transit Cars.

2. DETAILED REQUIREMENTS

- 2.1 ITEM 1 – 2 Conductor High Temperature Control and Instrumentation Cable (CTA Item No. 3104476)

- 2.1.1 The cable shall meet the requirements of MIL-W-16878/4(Type E) except stranding.

- 2.1.2 2 Conductor

- 2.1.3 Size of conductor: 16 AWG

- 2.1.4 Soft annealed silver coated Copper

- 2.1.5 Stranding: (19x29)

- 2.1.6 Insulation: 0.012" extruded Teflon

- 2.1.7 Conductors shall be color coded white and black.

- 2.1.8 Overall silver-plated copper

- 2.1.9 White TFE teflon tape-wrapped jacket, 0.012" thick

- 2.1.10 Voltage: 600V

- 2.1.11 Temperature Range: -65°C to 600°C

2 DETAILED REQUIREMENTS (contd)

2.1.12 Nominal Capacitance:

- a. Between conductors: 36pf/ft
- b. Between one conductor and other conductors connected to shield: 60pf/ft.

2.2 ITEM 2 – 3 Conductor High Temperature Control and Instrumentation Cable (CTA Item No. 3104475)

2.2.1 The cable shall meet the requirements of MIL-W-16878/4(Type E) except stranding.

2.2.2 3 Conductor

2.2.3 Size of conductor: 16 AWG

2.2.4 Soft annealed silver coated Copper

2.2.5 Stranding: (19x29)

2.2.6 Insulation: 0.012" extruded Teflon

2.2.7 Conductors shall be color coded white, black, and red.

2.2.8 Overall silver-plated copper

2.2.9 White TFE teflon tape-wrapped jacket, 0.012" thick

2.2.10 Voltage: 600V

2.2.11 Temperature Range: -65°C to 600°C

2.2.12 Nominal Capacitance:

- c. Between conductors: 30.7pf/ft
- d. Between one conductor and other conductors connected to shield: 63pf/ft.

2.2.13 The cable shall meet the requirements of MIL-W-16878/4(Type E) except stranding.

3. APPROVED AND NON-APPROVED ITEM INFORMATION

- 3.1 Contractor shall only furnish and deliver CTA approved items under the terms of a given contract. Should a potential contractor wish to offer for CTA consideration an alternate item not currently approved, the potential contractor shall first contact the CTA Procurement Administrator or Buyer for details on the CTA's item approval process. The time required for reviewing and/or testing each item offered will vary and depend on applicable procedures. Approval of an item does not guarantee an order under a currently proposed or future contract. Upon award of a contract, each item furnished by the contractor shall be identical to the item that was approved.

4. ADDITIONAL INFORMATION FOR POTENTIAL BIDDERS

- 4.1 Bidders requiring additional information shall contact the Procurement Administrator listed on the front page of this Contract document. Potential bidders requiring additional information from a person or persons listed in the special Conditions must route their requests through the Procurement Administrator. Potential bidders who contact any CTA personnel other than the Procurement Administrator will be considered in violation of the provisions of the Contract Document.

DISTRIBUTION: Mgr., Technical Services - Rail

JEV/jev – Initial Specification - 03/20/02

SAS/sas – 2nd Revision – 01/28/06

CA/ca – Reviewed and Reapproved – 2/10/2011

CHICAGO TRANSIT AUTHORITY
DETAILED SPECIFICATION
FOR
CABLE: ELECTRIC, HIGH TEMP, COPPER, SILICONE
INSULATION, DOUBLE BRAID KEVLAR, 200°C, 2000V
SPECIFICATION NO. CTA 7679-07 (R09)

1. SCOPE

- 1.1 This specification covers the requirements for supplying a high temperature, silicone insulated, double braided Kevlar cable utilized on the Chicago Transit Authorities (CTA's) rapid transit car body installation.

2. DETAILED REQUIREMENTS

- 2.1 ITEM 1 – 2/0 AWG High Temperature Cable (CTA Item No. 3102628) shall have the following material and performance features:

- Conductor: Soft annealed tin plated copper.
- Size of conductor: 2 AWG.
- Stranding: 133 strands (19 x 7) 23 AWG.
- Insulation: Extruded silicone rubber.
- Insulation thickness: 0.060" nom.
- Jacket: Double braid of Kevlar yarn impregnated with a saturant to minimize fraying.
- O.D.: 0.595" +/- 0.012".
- Color: Natural Yellow

2.1.1 Cable Performance:

- a. Voltage performance: 600 VAC R.M.S. 2000 VDC
- b. Spark test: 7500 VAC R.M.S.
- c. Temperature rating: 200°C

- 2.2 ITEM 2 – 4/0 AWG High Temperature Cable (CTA Item No. 3102627) shall have the following material and performance features:

- Soft annealed tin plated copper.
- Size of conductor: 4/0 AWG.
- Stranding: 259 strands (37 x 7)/ 21 AWG.
- Insulation: Extruded silicone rubber.

2. DETAILED REQUIREMENTS (Contd.)

2.2 (Contd.)

- Insulation thickness: 0.080" nom.
- Jacket: Double braid of Kevlar yarn impregnated with a saturant to minimize fraying.
- O.D.: 0.866" +/- 0.020". Nom.
- Color: Natural Yellow

2.2.1 Cable Performance:

- a. Voltage performance: 600 VAC R.M.S. 2000 VDC
- b. Spark test: 7500 VAC R.M.S.
- c. Temperature rating: 200°C

2.3 Refer to the contract document for a current list of approved products.

3. APPROVED AND NON-APPROVED ITEM INFORMATION

- 3.1 Contractor shall only furnish and deliver CTA approved items under the terms of a given contract. Should a potential contractor wish to offer for CTA consideration an alternate item not currently approved, the potential contractor shall first contact the CTA Procurement Administrator or Buyer for details on the CTA's item approval process. The time required for reviewing and/or testing each item offered will vary and depend on applicable procedures. Approval of an item does not guarantee an order under a currently proposed or future contract. Upon award of a contract, each item furnished by the contractor shall be identical to the item that was approved

4. ADDITIONAL INFORMATION FOR POTENTIAL BIDDERS

- 4.1 Bidders requiring additional information shall contact the Procurement Administrator listed on the front page of this Contract Document. Potential Bidders requiring additional information from a person or persons listed in the Special Conditions must route their requests through the Procurement Administrator. Potential Bidders who contact any Authority personnel other than the Procurement Administrator will be considered in violation of the provisions of the Contract Document.

DISTRIBUTION: Manager, Technical Services Rail

JEV/jev – Initial Specification – 03/21/02

SAS/sas – 2nd Revision – 02/26/07

CA/ca – Reviewed and re-approved – 3/3/09

CHICAGO TRANSIT AUTHORITY
DETAIL SPECIFICATION
FOR
ELECTRICAL CONTROL CABLE
- TWISTED SHIELDED PAIR, 600 VDC

SPECIFICATION NO CTA 9305-06(R12)
CTA ITEM NO. 3100012

1 SCOPE

- 1.1 This specification details the requirements for multiple conductor, twisted shielded pair cable used to transmit electrical control signals between sensors and the controls of Chicago Transit Authority passenger rail cars.

2 REQUIREMENTS

- 2.1 The Contractor shall furnish new, multiple conductor, twisted shielded pair (TSP) electrical control cable (cable) composed of the number and size of conductors requested in each contract release.
- 2.2 The cable shall be self-supporting, flexible, suitable for suspended movement and vibrations characteristic of high-speed transportation equipment. The complete cable shall have a minimum dynamic bend radius of 2.4" (6 cm) or less.
- 2.3 Cable conductors:
- 2.3.1 Each conductor shall be insulated, stranded, soft tinned copper, in the requested American Wire Gage (AWG) size. The copper shall be drawn and annealed per American Society for Testing and Materials (ASTM) standard B 3, *Soft or Annealed Copper Wire*. Unless otherwise requested, stranding of 18 AWG conductors shall consist of nineteen (19) 30 AWG wires arranged per ASTM B 174, *Bunch-Stranded Copper Conductors for Electrical Conductors*, class K. Each conductor shall have a nominal diameter of 0.047" (1.19 mm) and a nominal direct current resistance of 7.0 ohms per thousand feet at a temperature of 20°C (68°F).
- 2.3.2 Unless otherwise requested, the insulation of each conductor shall be thermosetting, flame retardant, irradiated cross-linked polyolefin (XLPO; e.g. Exane™). The insulation shall have a minimum voltage rating of 600 volts and a minimum temperature rating of 125°C (257°F) as determined by ASTM D 470, *Crosslinked Insulations and Jackets for Wire and Cable*. Insulation thickness for 18 AWG conductors shall be not less than 15 mils (0.015 inches). The overall nominal diameter of the insulated conductor shall be approximately 0.077" (1.96 mm).

2 DETAILED REQUIREMENTS (Cont.)

- 2.3.3 The insulation shall be tight fitting to the conductor strands and shall strip freely. The insulation requirements shall meet the applicable requirements of with Insulated Cable Engineers Association (ICEA) publication S-93-639 / National Electrical Manufacturers Association (NEMA) standard WC74, *Shielded Power Cable 5-46kV*.
- 2.3.4 All insulation shall be color coded in accord with ICEA S-93-639/NEMA WC74.
- 2.4 Cable assembly:
 - 2.4.1 The cable lay shall be constructed in accord with ICEA S-93-639/NEMA WC74. Unless otherwise requested, the lay shall be left hand.
 - 2.4.2 The cable conductors shall be formed into a cylindrical core and tape wrapped (bound) with polyethylene terephthalate (e.g. Mylar™). Where appropriate, fibrillated polypropylene shall be used as filler, assuring core roundness.
 - 2.4.3 The cylindrical core shall be shielded from electro-magnetic irradiation by electrically continuous, tinned copper strands braided to overlay a minimum of 95% of the core outer surface. To comply with cable flexibility requirements the strands shall be a nominal 36 AWG in size.
 - 2.4.4 The composite cable core (conductors, filler, binder and shield) shall be covered with a heavy duty, self-extinguishing XLPO jacket with a minimum temperature rating of 125°C (257°F) as determined by ASTM D 470. The jacket shall be resistant to abrasion, cut-through, notch propagation, impact, voltage, moisture, fire, oils, cleaners, chemicals and heat. Jacket thickness shall be with the range of 15 to 31 mils (0.015"-0.031"). Alternate jacket materials and construction require the written approval of Chicago Transit Authority's (CTA's) Rail Technical Service Manager.
 - 2.4.5 The cable jacket shall be indelibly marked with the cable manufacturer's name, rated electrical potential, temperature rating and, desirably, the year of manufacture. The markings shall appear at approximately one foot intervals.
- 2.5 The assembled cable construction shall not restrict the nominal movement of the insulated conductors within the jacket when the cable is flexed in its intended use.
- 2.6 The composite cable shall pass the toxicity requirements of Boeing Specification Support (BSS) standard 7239, *Toxic Gas Generation by Materials on Combustion*, in both flaming and non-flaming modes.
- 2.7 The cable ends shall be suitably protected, waterproofed and securely fastened to prevent damage during shipment.

2 DETAILED REQUIREMENTS (Cont.)

- 2.8 Unless otherwise requested, the Contractor shall furnish each requested cable length as a single, continuous strand.
- 2.9 The cable shall be supplied on the manufacturer's non-returnable reels. Each reel shall be marked with the cable type, size, length, and the manufacturer's name or logo. The manufacturer's original identification and labeling are included in this requirement. Refer to the contract documents for additional labeling requirements.
- 2.10 The version of each standard, publication and code referenced herein that is current on the date of the invitation for bid shall apply.

3 CONTRACT INFORMATION

- 3.1 Refer to the contract documents for a list of electrical control cables upon which Bidders are to base their bids. The conductor quantity, size and stranding requirements of each cable are detailed therein.
- 3.2 Bidders shall identify the original cable manufacturer and product designation of each proposed cable with their bid or within five days of CTA's request.
- 3.3 CTA reserves the right to request, review and evaluate documentation and samples proposed electrical control cable without cost or obligation.
- 3.4 Potential bidders proposing to offer parts, products, or equipment as equivalent to that described in this specification shall refer to the following sections and articles of the contract documents:
- Contract for Supplies Requirements for Bidding and Instructions to Bidders:
 - Article 14: Catalogs
 - Article 15: Trade Names
 - Standard Government Requirements for Material and Equipment Purchases:
 - Article I: Specific Materials and/or Specific Equipment

3. CONTRACT INFORMATION (Continued)

- 3.5 Bidders requiring additional information shall contact the Procurement Administrator listed on the front page of this contract document. Potential bidders requiring additional information from person(s) listed in the special conditions must route their requests through the Procurement Administrator. Potential bidders who contact any CTA personnel other than the Procurement Administrator will be considered in violation of the provisions of the contract document

Distribution: Manager, Rail Technical Services

CE/che - Initial Spec. - 12/20/06
HHP/hhp – Reviewed – 02/09/12

CHICAGO TRANSIT AUTHORITY

DETAIL SPECIFICATION FOR CABLE: COMPOSITE, NINE (9) CONDUCTOR, FOR LOW VOLTAGE HARNESS ASSEMBLIES

**SPECIFICATION NO CTA 9714-08(R12)
CTA ITEM NO. 3103237**

1. SCOPE

- 1.1 This specification will describe the requirements for a Contractor to furnish a nine (9) conductor composite cable, to be used by the CTA in fabricating various low voltage harnesses used on the Chicago Transit Authority's rail cars.

2. DETAILED REQUIREMENTS

- 2.1 The Contractor shall furnish new, nine (9) conductor cable that meets the physical and electrical requirements specified herein.
- 2.2 The cable shall be self-supporting, flexible, suitable for suspended movement and vibrations characteristic of high speed transportation equipment.
- 2.3 The cable shall be comprised of the following : Component I, layered with Components II and III, plus fillers cabled together with a left hand lay, wrapped with a binder and covered with an outer jacket to a nominal outside diameter of 0.740".
- 2.3.1 Component I – One (1) Twisted Shielded & Jacketed pair (TPS&J) cable, consisting of the following.
- Two (2) #16AWG 26/30 tinned copper conductors with 0.031" thick irradiated crosslinked polyolefin equal to POLYRAD XT. The insulation on one (1) of the conductors shall be black in color and the other conductor insulation shall be white in color.
 - Filler – As required to maintain a circular cable cross section.
 - Drain Wire - #16AWG 26/30 tinned copper twisted together with the two (2) #16 AWG conductors with a left hand lay.
 - Shield – 0.0015" aluminum/mylar tape with a 25% overlap (the aluminum side shall be in against the drain wire).
 - Jacket - 125°C irradiated crosslinked polyolefin equal to POLYRAD XT (black in color).
 - Outside Diameter – The TPS&J cable shall have a nominal O.D. of 0.285".

2. DETAILED REQUIREMENTS (Cont.)

2.3 Cable Components (Cont.)

- 2.3.2 Component II - Three (3) #16AWG 26/30 tinned copper conductors with 0.031" thick irradiated crosslinked polyolefin equal to POLYRAD XT. The nominal O.D. of the conductors shall be 0.121". The insulation color coding of the three (3) conductors shall be: Black, White and Red.
- 2.3.3 Component III - Four (4) #12AWG 65/30 tinned copper conductors with 0.031" thick irradiated crosslinked polyolefin equal to POLYRAD XT. The nominal O.D. of the conductors shall be 0.153". The insulation color coding of the four (4) conductors shall be: Black, White, Red, & Green.
- 2.3.4 Binder – 0.001" mylar tape wrapped with a 25% minimum overlap.
- 2.3.5 Jacket - The cable jacket shall be composed of black heavy-duty polychloroprene, (Neoprene®) conforming to ASTM D 4247, *General-Purpose, Black Heavy-Duty, and Black Extra-Heavy-Duty Polychloroprene Jackets for Wire and Cable*. The jacket shall have a minimum temperature rating of 90°C (194°F) as determined by ASTM D 470.
- 2.3.6 Cable Markings - The cable jacket shall be marked with the cable manufacturer's name and part number, the type of cable, the number and size of conductors, the conductor insulation and the cable jacket material identification, and the year of manufacture. The markings shall appear at approximately one foot intervals.
- 2.4 Cable Conductors - The copper conductors shall be stranded, soft copper. The copper shall be drawn and annealed per American Society for Testing and Materials (ASTM) standard B 3, *Soft or Annealed Copper Wire*. Stranding shall be arranged per ASTM B 174, *Bunch-Stranded Copper Conductors for Electrical Conductors*, class K.
- 2.5 Insulation - The insulation on each conductor shall be made from irradiated crosslinked polyolefin equal to POLYRAD XT, having a 600 volt rating at 125°C (257°F).
 - 2.5.1 All insulation shall be color coded in accord with Insulated Cable Engineers Association (ICEA) publication S-95-658 / National Electrical Manufacturers Association (NEMA) standard WC70, method 1, table 1, for *Nonshielded 0-2 kV Cables*, or ICEA S-93-639 / NEMA WC74, for *Shielded Power Cable 5-46kV*.
- 2.6 The assembled cable construction shall not restrict the nominal movement of the insulated conductors within the jacket when the cable is flexed in its intended use.
- 2.7 The cable ends shall be suitably protected, waterproofed and securely fastened to prevent damage during shipment.

2. DETAILED REQUIREMENTS (Cont.)

- 2.8 Unless otherwise requested, the Contractor shall furnish each requested cable length as a single, continuous strand to the lengths called for in the contract documents.
- 2.9 The cable shall be supplied on the manufacturer's non-returnable reels. Each reel shall be marked with the cable type, size, length, weight, the manufacturer's name or logo, and CTA's contract release and item numbers. The manufacturer's original identification and labeling are included in this requirement. Refer to the contract documents for additional labeling requirements.
- 2.10 The version of each standard, publication and code referenced herein that is current on the date of the invitation for bid shall apply.

3. APPROVED AND NON-APPROVED ITEM INFORMATION

- 3.1 Contractor shall only furnish and deliver CTA approved items under the terms of a given contract. Should a potential contractor wish to offer for CTA consideration an alternate item not currently approved, the potential contractor shall first contact the CTA Procurement Administrator or Buyer for details on the CTA's item approval process. The time required for reviewing and/or testing each item offered will vary and depend on applicable procedures. Approval of an item does not guarantee an order under a currently proposed or future contract. Upon award of a contract, each item furnished by the contractor shall be identical to the item that was approved.

4. ADDITIONAL INFORMATION FOR POTENTIAL BIDDERS

- 4.1 Bidders requiring additional information shall contact the Procurement Administrator listed on the front page of the Contract Document. Potential Bidders requiring additional information from a person or persons listed in the Special Conditions must route their requests through the Procurement Administrator. Potential Bidders who contact any Authority personnel other than the Procurement Administrator will be considered in violation of the provisions of the Contract Document.

Distribution: Mgr., Rail Technical Services

MD/md - Initial Specification - 09/15/08
HHP/hhp – Reviewed – 02/09/12

PROPOSAL

**SPECIFICATION NO. (As Indicated)
CONTRACT NO. B11OP03602**

By execution of this proposal the undersigned offers, in accordance with the terms of the Contract Documents of which this proposal is a part, to furnish and deliver various type and sizes of Electrical Cable, As Required, F.O.B. Freight Included Destination as described in these General and Special Conditions and Detail Specifications as indicated at the price quoted below. This Contract shall become effective as soon thereafter as the Contract is executed and will continue in effect for a period of thirty-six (36) months.

Prices quoted shall be **firm** for the initial 90 day period of the contract. Thereafter, qualified bidders as described in the Special Conditions under section BIDDING, BID EVALUATION AND CONTRACT AWARDS on page SC-2 will competitively bid definite quantity – definite delivery solicitations, as required by the CTA, until the 36 month expiration of the contract.

Please see attached information for approved manufacturers and to furnish **unit pricing**.

Note: As is industry custom, lengths that are $\pm 5\%$ on each reel will be acceptable. Invoices must reflect the exact amount delivered.

NAME OF FIRM BIDDING: _____

ADDRESS: _____

CITY: _____ **STATE:** _____ **ZIP CODE:** _____

NAME OF PERSON TO CONTACT: _____

E-MAIL ADDRESS FOR QUOTES: _____

GENERAL E-MAIL ADDRESS (IF DIFFERENT): _____

PHONE NO.: _____ **FAX NO.:** _____

TERMS: DISCOUNT: _____% **DAYS, NET** _____ **DAYS**

RFQ Number: 79542

Requisition Num: B11003602

Buyer Name: Reinitz, John A

Buyer Phone:

Line No.	Item No.	UOM	Prior Demand	Manufacturer's Name	Part Number	Manufacturer's Name	Manufacturer's Part No.	Offered	Unit Price	Lead Time
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1 1710055 FT 1000

Description: CORD, CABLE, SIGNAL, VINYL COVERED, TRANSPARENT, RED., SPEC. NO: 2963,
Description: PCK. INFO: UOP: SP 1000 FT

2 3101778 FT 11061

INTIMIRE 8G 7287
CAMDEN 86-7287

Description: CABLE: ELECTRIC, BARE COPPER, TO INCLUDE, SPECIFIC ROPE LAY AS FOLLOWS: 22/36
BARE #.75" L.H. LAY, 7X22/36 BARE #.561" R.H. LAY, 7X7X22/36 BARE # 1.00" L.H.
Description: LAY, DISCONTINUE IN WH 42/TRANSFER TO WH 20, SPEC. NO: 668, PCK. INFO: SPL
500 FT

3 3102005 FT 2000

Description: CABLE: ELECTRIC, WELDING, COPPER, CHLORINATED POLYETHYLENE SHEATH, 2 AWG
Description: STRANDED, NOTE: 1,000 FT IN STOCK AT ALL TIMES, SPEC. NO: 711, ITEM 3, PCK.
INFO: SP 250 FT

4 3102013 FT 0

INDELECT WC3/0B4180E-5

Description: CABLE: ELECTRIC, WELDING, COPPER, CHLORINATED POLYETHYLENE SHEATH, 3/0 AWG
Description: STRANDED, NOTE: 1,000 FT. IN STOCK AT ALL TIMES., SPEC. NO: 711, ITEM 7,
PCK. INFO: FT 1 FT

5 3102084 FT 600

Description: CABLE: ELECTRIC, THW APPLIANCE, 90 DEG. C, COPPER, THERMOPLASTIC INSULATED,
Description: BLACK 2/0 AWG, 19 STRANDS 2/0 CABLE, C.630, SPEC. NO: 792, PCK. INFO: RE
500 FT

6 3102093 FT 6000

Description: WIRE: ELECTRIC, THWN, COPPER, 90 DEG. C., THERMOPLASTIC INSULATED, NYLON SHEATH,
Description: BLACK, 12 AWG, SOLID, SPEC. NO: 3065, PCK. INFO: COIL 500 FT

7 3102096 FT 3000

Description: WIRE: ELECTRIC, THWN BUILDING, COPPER, 90 DEG. C, THERMOPLASTIC INSULATED,
Description: NYLON SHEATH, #8 AWG, 19 STRAND, BLACK, SPEC. NO: 3065, PCK. INFO: COIL 500
FT

C H I C A G O T R A N S I T A U T H O R I T Y
P U R C H A S I N G / W A R E H O U S I N G D E P A R T M E N T
B I D P R O P O S A L S H E E T

RFQ Number: 79542

Requisition Num: B10P03602

Buyer Name: Reinltz, John A

Buyer Phone:

Line No.	Item No.	UOM	Prior Demand	Manufacturer's Name	Part Number	Manufacturer's Name	Part No. Offered	Unit Price	LEAD TIME
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8 3102105 FT 2500

WIRE: ELECTRIC, THWN BUILDING, 90 DEG., C, COPPER, THERMOPLASTIC, INSULATED,,
Description: NYLON SHEATH, RED, 8 AWG, 19 STRANDS., SPEC. NO: 3065, PCK. INFO: CO 500 FT

9 3102109 FT 7500

WIRE: ELECTRIC, THWN BUILDING, RED,, 90 DEGREE C, COPPER, THERMOPLASTIC,
Description: INSULATED, NYLON SHEATH, 10 AWG, 19, STRANDS, SPEC. NO: 3065, UOP:
COIL 500FOOT

10 3102111 FT 8000

WIRE: ELECTRIC, THWN BUILDING, 90 DEG., C, COPPER, THERMOPLASTIC, INSULATED,,
Description: NYLON SHEATH, GREEN, 10 AWG 19 STRANDS., SPEC. NO: 3065, PCK. INFO: CO 500
FT

11 3102114 FT 16500

WIRE: ELECTRIC, THWN BUILDING, 90 DEG. C COPPER,, THERMOPLASTIC INSULATED, NYLON
Description: SHEATH, WHITE,, 14 AWG, 19 STRANDS., SPEC. NO: 3065, PCK. INFO: UOP:
COIL 500FOOT

12 3102115 FT 11000

WIRE: ELECTRIC, THWN BUILDING, COPPER,, 90 DEG. C, THERMOPLASTIC, INSULATED,,
Description: NYLON SHEATH, WHITE, 12 AWG, SOLID, SPEC. NO: 3065, PCK. INFO: COIL 500 FT

13 3102116 FT 6000

WIRE: ELECTRIC, THWN BUILDING, COPPER,, THERMOPLASTIC INSULATED, NYLON SHEATH,,
Description: RED, 12 AWG, SOLID,, SPEC. NO: 3065, PCK. INFO: CO 500 FT

14 3102119 FT 4000

WIRE: ELECTRIC, THWN BUILDING, 90 DEG., C, COPPER, THERMOPLASTIC INSULATED,,
Description: NYLON SHEATH, BLUE, 12 AWG. SOLID,, SPEC. NO: 3065, PCK. INFO: COIL 500 FT

C H I C A G O T R A N S I T A U T H O R I T Y
P U R C H A S I N G / W A R E H O U S I N G D E P A R T M E N T
B I D P R O P O S A L S H E E T

RFO Number: 79542

Requisition Num: B10P03602

Buyer Name: Reinitz, John A

Buyer Phone:

Line No.	Item No.	UOM	Prior Demand	Manufacturer's Name	Part Number	Manufacturer's Name	Manufacturer's Part No.	Offered	Unit Price	Lead Time
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15 3102125 FT 5429 DEARBORN DA7474-9
INDELECT ETEF812-9
HARBOR CT3102125
JDDWIRE H00099

Description: WIRE: ELECTRIC 150 DEG. C COPPER, WHITE ETEF (TEFZEL) INSULATION 1000V, 12 AWG.,
37 STRANDS, SPEC. NO: 3789, PCK. INFO: FT 1100 FT

16 3102126 FT 0 DEARBORN CT3102126
DEARBORN DA7474-0

Description: CABLE: ELECTRIC, 150 DEG. C, RT CAR. COPPER, ETEF, TEFZEL INSULATED, BLACK, 1000
VOLTS, 12 AWG, 37 STRANDS, 1000 FT. PER REEL., SPEC. NO: 3789, PCK. INFO:
FT 1000 FT

17 3102175 FT 0 ELECTROW EM 1748

Description: CABLE: 32 CONDUCTOR, #12 AWG, XLPO INSULATION, BRAIDED SHIELD NEOPRENE JACKET,
FOR ATC, TRAINLINE HARNESS ASSY., REF: BOEING DRWG. 335-90751, ITEM #1., SPEC.
NO: 3771, PCK. INFO: FT 1 FT

18 3102176 FT 0 ELECTROW EM 1758

Description: CABLE: 53 CONDUCTOR, #12 AWG XLPO IN., SULATION, BRAIDED SHIELD, NEOPRENE,
JACKET., FOR COMMUNICATIONS TRAINLINE HARNESS, ASSY., REF: BOEING DRWG. 335-
90751, ITEM #2., SPEC. NO: 3771, REV. NO: DATE:, DRAW:
NO: REV. NO: DATE:, PAT. NO: REV. NO: DATE:, PCK. INFO: FT 1 FT

19 3102177 FT 0 ELECTROW EM 1759

Description: CABLE: 56 CONDUCTOR, #12 AWG XLPO, INSULATION, NEOPRENE JACKET., FOR 40V
TRAINLINE HARNESS ASSY., REF: BOEING DRWG. 335-90751, ITEM #3., SPEC. NO:
3771, REV. NO: DATE:, DRAW. NO: REV. NO: DATE:, PAT. NO: REV. NO: DATE:, PCK. INFO: FT 1 FT

20 3102317 FT 0 DEARBORN DA7474-3
HARBOR CT3102317

Description: CABLE: ELECTRIC, 150 DEGREE C, COPPER, ETEF, TEFZEL, INSULATED, ORANGE 1000 V, 12
AWG, 37 STRANDS., SPEC. NO: 3789, PCK. INFO: FT 1 FT

CHICAGO TRANSMIT AUTHORITY
 PURCHASING/WAREHOUSING DEPARTMENT
 BID PROPOSAL SHEET

RFQ Number: 79542

Requisition Num: B10P03602

Buyer Name: Reinitz, John A

Buyer Phone:

Line No.	Item No.	UOM	Prior Demand	Manufacturer's Name	Part Number	Manufacturer's Name	Manufacturer's Part No.	Offered	Unit Price
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LEAD TIME

21 3102318 FT 0

DEARBORN
 HARBOUR
 CABLEUSA
 DA7475-9
 CTA3102318
 82100105.9

DESCRIPTION: CABLE: ELECTRIC, 150 DEG. C, R/T CAR, COPPER, ETFE (TEFZEL) INSULATION 0.030", THICK, WHITE, 10 AWG, 104 STRANDS., SPEC. NO: 3789, PCK. INFO: FT 1 FT

22 3102319 FT 0

DEARBORN
 HARBOUR
 TELETHER
 DA7475-0
 CTA3102319
 3789-75A

DESCRIPTION: CABLE: ELECTRIC, 150 DEG. C, COPPER, ETFE, TEFZEL, INSULATION 0.030" THICK, BLACK, 10 AWG, 104 STRANDS, NOMINAL OD 0.186", RATED 1000 VOLTS., SPEC. NO: 3789, UOP: FT 1FT

23 3102320 FT 0

INDELECT
 DEARBORN
 HARBOUR
 ETFE16-5B
 DA7476-3
 CTA3102320

DESCRIPTION: CABLE: ELECTRIC, 150 DEGREE C, COPPER, ETFE TEFZEL, INSULATED, ORANGE, 1000 VOLT, Description: 16 AWG, 26 STRANDS., SPEC. NO: 3789, PCK. INFO: FT 1 FT

24 3102323 FT 0

HARBOUR
 CTA3102323

DESCRIPTION: CABLE: ELECTRIC, 150 DEGREE C, R.T. CAR, COPPER, ETFE (TEFZEL) INSULATED, 1000 Description: V, WHITE, 8 AWG, SPEC. CTA 3789., SPEC. NO: 3789, PCK. INFO: FT 1 FT

25 3102324 FT 500

HARBOUR
 CTA3102324

DESCRIPTION: CABLE: ELECTRIC, 150 DEGREE C, R.T. CAR COPPER, ETFE (TEFZEL) INSULATED, 1000 V, Description: BLACK 8 AWG, SPEC. CTA-3789, SPEC. NO: 3789, PCK. INFO: FT 1 FT

26 3102545 FT 0

CABLE: ELECTRIC, ROUND, VITAL CIRCUIT SIGNAL UNDERGROUND, COPPER RUBBER Description: INSULATED, POLYETHYLENE SHEATH SINGLE CONDUCTOR, 9 AWG, 7 OR 19 STRAND, 1000 V A.W.G., 7 STRANDS., SPEC. NO: 497, PCK. INFO: RE 1000 FT

C H I C A G O T R A N S I T A U T H O R I T Y
P U R C H A S I N G / W A R E H O U S I N G D E P A R T M E N T
B I D P R O P O S A L S H E E T

RFQ Number: 73542

Requisition Num: B110P03602

Buyer Name: Reinitz, John A

Buyer Phone:

Line No.	Item No.	UOM	Prior Demand	Manufacturer's Name	Part Number	Manufacturer's Name	Manufacturer's Part No.	Offered	Unit Price	LEAD TIME
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27	3102627	FT	0	HARBOUR	CTA 3102627					
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CABLE: HIGH TEMP FOR CAR BODY INSTALLATION, COPPER CONDUCTOR, (37X7)/21 AWG TIN-PLATED, (.586") NOM. OD, SIZE 4/0 AWG (259) RATED FOR 2KV TRACTION APPLICATION INSULATION-EXTRUDED SILICONE RUBBER, WALL THICKNESS .080" NOM., RATED FOR CONTINUOUS SERVICE AT MIN 200 DEGREES C. JACKET-DOUBLE BRAID KEVLAR YARN WITH OVERALL VARNISH APPL. (.886"/-.020") OD., IN NATURAL YELLOW COLOR. (.866" +/- .020") OD IN NATURAL YELLOW COLOR. DESCRIPTION XSR8024/025921KRB 4/0 AWG (259) TPC SR (DBL K FIBER), SPEC NO.: 7679, F.I. 01-27-00

28	3102628	FT	0	HARBOUR	CTA 3102628					
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CABLE: HIGH TEMP FOR CAR BODY INSTALLATION, COPPER CONDUCTOR, (19X7)/24 AWG TIN-PLATED, (.335") NOM. OD, SIZE 2 AWG (133) RATED FOR 2KV TRACTION APPLICATION INSULATION-EXTRUDED SILICONE RUBBER, WALL THICKNESS .060" NOM., RATED FOR CONTINUOUS SERVICE AT MIN 200 DEGREES C. JACKET DOUBLE BRAID KEVLAR YARN WITH OVERALL VARNISH APPL. (.595"/-.012") OD., IN NATURAL YELLOW COLOR. DESCRIPTION XSR80221332KRB 2 AWG (133) TPC SR (DBL K FIBER), HARBOUR IND. SPEC. G558, F.I. 01-27-00, SPEC. NO.: 7679

29	3102683	FT	0	SUPREMAN	DAC 21A BAA					
				BUD	X87-83771					

CABLE: JUMPER, INTERCAR COMMUNICATIONS, 21 CONDUCTOR, EXANE, COMPOSITE., PER Description: DRAWING DCA 21A BAA., SPEC. NO: 7144, UOP: FOOT00001FOOT

30	3102686	FT	0	ROCKBEST	TXE 4/0-2KV					
				BRANDREX	296510					

CABLE: ELECTRIC, LOCOMOTIVE, TINNED, COPPER, 4/0, XLPO, 550 STRAND, 24 GA., 110 Description: DEG. C, 2000 V INC., SPEC. NO: 3793, UOP: FOOT 1FOOT

31	3102687	FT	0	ROCKBEST	TXE 3/0-2KV					
				BRANDREX	300900					

CABLE: ELECTRIC, LOCOMOTIVE, TINNED, COPPER, 3/0, XLPO, 450 STRAND, 24 GA., 110 Description: DEG. C, 2000 V INS., SPEC. NO: 3793, PCK. INFO: FT 1 FT

32	3102688	FT	500							
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CABLE: ELECTRIC, LOCOMOTIVE, TINNED, COPPER, 1/0, XLPO, 275 STRAND, 24, GA., 110 Description: DEG. C, 2000 V INS., SPEC. NO: 3793, PCK. INFO: FT 1 FT

CHICAGO TRANSIT AUTHORITY
PURCHASING/WAREHOUSING DEPARTMENT
BID PROPOSAL SHEET

RFO Number: 79542

Requisition Num: B110P03602

Buyer Name: Reinitz, John A

Buyer Phone:

Line No.	Item No.	QOM	Prior Demand	Manufacturer's Name	Part Number	Manufacturer's Name	Manufacturer's Part No.	Offered	Unit Price	LEAD TIME
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33 3102689 FT 200

ROCKBEST
BRANDREX

TXE 2-2K
302440

CABLE: ELECTRIC, LOCOMOTIVE, TINNED COPPER, #2, XLPO, 150 STRAND, 24 GA., 110
Description: DEG. C, 2000 V INS., SPEC. NO: 3793, PCK. INFO: FT 1 FT

34 3102690 FT 4050

BRANDREX
ROCKBEST

301270
TXE-4-2KV

CABLE: ELECTRIC LOCOMOTIVE, TINNED COPPER, #4, XLPO, 105 STRAND, 24 GA., 110
Description: DEG. C, 2000 V INC., SPEC. NO: 3793, PCK. INFO: FT 1 FT

35 3102692 FT 0

ROCKBEST
BRANDREX

TXE-6-2KV
297970

CABLE: ELECTRIC, LOCOMOTIVE, TINNED COPPER, #6, XLPO, 61 STRAND, 24 GA., 110
Description: DEG. C, 2000 V INS., SPEC. NO: 3793, PCK. INFO: FT 1 FT

36 3102693 FT 0

BRANDREX
ROCKBEST

301480
TXE-12-2KV

CABLE: ELECTRIC, LOCOMOTIVE CAR, COPPER, X-LINKED, POLY-INSULATED, 12, AWG, 19
Description: STRAND, 110 DEG. C, 2000 V RATING., SPEC. NO: 3793, PCK. INFO: FT 1 FT

37 3102694 FT 0

BRANDREX
ROCKBEST

301260
TXE-10-2KV

CABLE: ELECTRIC, LOCOMOTIVE CAR, COPPER, X-LINKED, POLY INSULATED, 10, AWG, 27
Description: STRANDS, 110 DEG. C 2000 V RATING, SPEC. NO: 3793, PCK. INFO: FT 1 FT

38 3102696 FT 0

ROCKBEST

TXE 2/0-2KV

CABLE: ELECTRIC, LOCOMOTIVE, TINNED COPPER, 2/0, XLPO, 325 STRAND, 24 GA., 110
Description: DEG. C, 2000 V INS., SPEC. NO: 3793, PCK. INFO: FT 1 FT

39 3102959 FT 4500

CABLE: ELECTRIC, WEATHERPROOF, COPPER, 2/64" POLYETHYLENE SHEATH, 10 AWG, SOLID,
Description: HARD DRAWN., SPEC. NO: 770, PCK. INFO: UOP: COIL 500FEET

RFO Number: 79542

Requisition Num: B110P03602

Buyer Name: Reinitz, John A

Buyer Phone:

Line No.	Item No.	UOM	Prior Demand	Manufacturer's Name	Part Number	Manufacturer's Name	Part No. Offered	Unit Price	LEAD TIME
40	3103011	FT	0	HARBOR	CTA 3103011				
				BOEING	335-90702-10				
				INDELECT	ETFE8-3				
WIRE: 5 GAUGE TEPEL, ETFE, BLUE, 1000 VOLTS, SINGLE CONDUCTOR CABLE., SPEC.									
Description: NO: 3789, PCK. INFO: FT 1 FT									
41	3103154	FT	1714	ELECTROM	DAC19ACBJ				
CABLE: TRAINLINE, 19 CONDUCTOR, X-LINKED, POLYOLEFIN INSULATED, NEOPRENE SHEATH, SPEC.									
Description: 13 SINGLE CONDUCTORS, 12 AWG, 3 SHIELDED, PAIR, 16 AWG, FT. 09/25/95, NO: 754									
42	3103362	FT	5250						
CABLE: ELECTRIC, PORTABLE, TYPE SO., COPPER, RUBBER INSULATED NEOPRENE, SHEATH, 3									
Description: CONDUCTOR, 16 AWG., 23.46 LBS. PER M. FOOT, C-50, SPEC. NO: 703, PCK. INFO: FT 250 FT									
43	3103367	FT	750						
CABLE: ELECTRIC, PORTABLE, TYPE SO., COPPER, RUBBER INSULATED, NEOPRENE, SHEATH, SPEC. NO: 703, PCK. INFO: FT 250 FT									
Description: 4 CONDUCTOR, 16 AWG., C-50, SPEC. NO: 703, PCK. INFO: FT 250 FT									
44	3103372	FT	0	OKONITE	DEL-040				
				AMCABLE	37-119-214				
				GENCABLE	81940				
CABLE: ELECTRIC, 4/0, 550 STRANDS, 24 AWG, 3/64" NEOPRENE OR CPE JACKET, 5/64", SPEC. NO: 3418									
Description: EPR OF EPR INSULATION, 2000 VOLTS, 90 DEG. C. MAX. O.D. 0.90", F.I. 03-03 00, SPEC. NO: 3418									
45	3103864	FT	3500	PACRDEL	350 H				
				INDELECT	2PT16-0				
				WTRR	569 D-0				
CABLE: ELECTRIC, AUTOMOTIVE, LOW TENSION, BRAIDLESS, COPPER THERMO, PLASTIC									
Description: INSULATED, BLACK, 16 AWG., STRANDED., SPEC. NO: 2388, PCK. INFO: SP 100 FT									

CHICAGO TRANSLIT AUTHORITY
PURCHASING/WAREHOUSING DEPARTMENT
BID PROPOSAL SHEET

RFO Number: 79542

Requisition Num: B110P03602

Buyer Name: Reinitz, John A

Buyer Phone:

Line No.	Item No.	UOM	Prior Demand	Manufacturer's Name	Part Number	Manufacturer's Name	Manufacturer's Part No.	Offered	Unit Price	LEAD TIME
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46 3104460 FT 500 GENOCABLE CAROL 01310
COLEMANC ROYAL 823225

DESCRIPTION: CABLE: ELECTRIC, 18/2 COND., 300M, 300V, UL/CSA, 40 DEG. C TO 90 DEG. C; STRAND
16/10, INSULATION EP, OR EPDM JACKET CPE OR NEOPRENE, NOM. OD: 0.280, 0.285
IN. SPEC. NO: 7676, PCK. INFO: RO 250 FT

47 3104468 FT 2256 ROCKBEST R 58 3016
SUPVUTKO 81920
AMERCABL 37-119-212
GENOCABLE 81920

DESCRIPTION: CABLE: ELECTRIC, 2/0, 325 STRANDS, 24 AWG, 3/64" NEOPRENE OR CPE JACKET, 5/64"
EPR OR EPDM INSULATION, 2000 VOLTS, 90 DEG. C, MAX. O.D. 0.75", SPEC. NO: 3018,
PCK. INFO: FT 1 FT

48 3104469 FT 0 AMERCABL 37-401-030
AMCABLE 37-119-213
ROCKBEST R-58-3018
INDELECT W3/01
GENOCABLE 81930
OKONITE DEL-038

DESCRIPTION: CABLE: ELECTRIC 3/0, 450 STRANDS, 24AWG 3/64" NEOPRENE OR CPE JACKET, 5/64" EPR
OR EPDM INSULATION, 2000 VOLTS, 90 DEG. C MAX. O.D. 0.85", SPEC. NO: 3018, PCK.
INFO: FT: FT

49 3104470 FT 0 BRANDPEX 280720
JUDOWIRE H07500220802
ROCKBEST TYE-16-600V

DESCRIPTION: CABLE: ELECTRIC, 110 DEG. C, LOCOMOTIVE CAR, COPPER, CROSS LINKED, POLY
INSULATED, 16 AWG, 19 STRAND, 600 V, IIT EXANE SPEC. DAA-1068A, GE SPEC. SI
58765, EXE 1929 U (030), SPEC. NO: 7677, PCK. INFO: REEL 1000 FT

C H I C A G O T R A N S I T A U T H O R I T Y
P U R C H A S I N G / W A R E H O U S I N G D E P A R T M E N T
B I D P R O P O S A L S H E E T

RQ Number: 79542

Requisition Num: B110P03602

Buyer Name: Reinitz, John A

Buyer Phone:

Line No.	Item No.	UOM	Prior Demand	Manufacturer's Name	Part Number	Manufacturer's Name	Manufacturer's Part No.	Offered	Unit Price	LEAD TIME
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50	3104471	FT	10380	GENCABLE OKONITE AMERCABL	81911 DEL-032 37-119-211					
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CABLE: ELECTRIC, 1/0, 275 STRANDS, 24 AWG, 3/64" NEOPRENE OR CPE JACKET, 5/64" EPR OR EPDM INSULATION, 2000 VOLTS 90 DEG. C, MAX. O.D. 0.72", SPOOL SIZE 2500 FT. FOR TRACTION MOTOR LEAD CABLES., ROCKBESTOS CABLE NOT ACCEPTABLE, DO NOT SUBSTITUTE. SPEC. NO: 3618

51	3104476	FT	0	BELDENMF DEARBORN HARBOR	83322 61632 CTA3104476					
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CABLE: ELECTRIC, TYPE E SHIELDED, MIL-W-16878 TEFLON INSULATED, 2 CONDUCT, OR, 16 AWG, 19 STRAND, BRAIDED SILVER PLATED COPPER SHIELD, TEFLON TAPE, WRAPPED JACKET, 600 V, 200 DEG. C., SPEC. NO: 7678, PCK. INFO: FT 1 FT

52	3104502	FT	2000	HARBOR DEARBORN TELETER JUDDWIRE	CTA 3104502 DA7476-9 3789 H49010230901					
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WIRE: ELECTRIC, 150 DEGREE C, COPPER WHITE ETFE (TEFZEL) INSULATION, 1000V, 16 AWG, 26 STRANDS, NOTE: MUST COME IN 1000 FT. SPOOLS, SPEC. NO: 3789, PCK. INFO: FT 1000 SP

53	3104505	FT	3973	DEARBORN THERMAT HARBOR	DA7474-6 H492-12-3728 CTA3104505					
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CABLE: ELECTRIC, 150 DEG. C, R.T. CAR, COPPER, ETFE (TEFZEL) INSULATED, 12 AWG, 37 STRAND BLUE, 1000 V., SPEC. NO: 3789, PCK. INFO: FT 500 FT

54	3104506	FT	1000	DEARBORN CABLEUSA HARBOR	DA7476-6 821601U1.6 CTA3104506					
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WIRE: ELECTRIC, 150 DEGREE C, R.T. CAR, COPPER, ETFE (TEFZEL) INSULATED, 16, AWG, 26 STRAND, BLUE, 1000 VOLT, SPEC. NO: 3789, PCK. INFO: FT 1 FT

C H I C A G O T R A N S I T A U T H O R I T Y
P U R C H A S I N G / W A R E H O U S I N G D E P A R T M E N T
B I D P R O P O S A L S H E E T

RFO Number: 79542

Requisition Num: B110P03602

Buyer Name: Relnitz, John A

Buyer Phone:

Line No.	Item No.	UOM	Prior Demand	Manufacturer's Name	Part Number	Manufacturer's Name	Manufacturer's Part No.	Offered	Unit Price	Lead Time
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55 3104507 FT 0 DEARBORN HARBOUR DA7475-6 CTAJ104507

Description: CABLE: ELECTRIC, 150 DEGREE C, RT VEHICLE, COPPER, ETFE (TEFZEL), INSULATION, 0.030" THICK, BLUE, 10 AWG, 104 STRANDS, NOMINAL OD 0.186", RATED 1000 VOLTS, MATERIAL MUST BE 500 FT. PER REEL, SPEC. NO: 3789, PCK. INFO: RE 500 FT

56 3104673 FT 500 BRANDREX ROCKBEST 267040 TXE 262-2KV

Description: CABLE: ELECTRIC, LOCOMOTIVE, TINNED COPPER, 262 MCW, XLPO, 650 STRAND, 24, GA., Description: 110 DEG. C, 2000V INS., SPEC. NO: 3793, PCK. INFO: FT 1 FT

57 4303045 FT 2687 ITTSURPR DAC20ACAY

Description: CABLE: ELECTRIC CONTROL 'TRAINLINE', 20 CONDUCTOR, 12 AWG, 65 STRAND, 600V, #54635, ITEM L, SPEC. NO: 3771, PCK. INFO: FT 1 FT

58 3105237 FT 1734 GEN'ABLE 376890 T 15522

Description: CABLE: NINE CONDUCTOR, CONTAINING ONE TWISTED SHIELDED PAIR 16 AWG, THREE SINGLE CONDUCTORS 16 AWG, AND FOUR SINGLE CONDUCTORS 12 AWG, MUST COME IN 1000 FT. SPOOLS, F.I. 10/04/05, SPEC. NO. 9714

59 3100012 FT 6420 ROCKBEST TD-003551

Description: CABLE: 2/C 18 AWG, 19/30 TINNED COPPER, 36 AWG TIN, COPPER SHIELD XLPO INSULATION, XLPO JACKET, 600, VDC, 125 DEG. C, 0.220"-0.240" OD, MUST COME IN 1000' SPOOLS, F.I. 04/17/06, SPEC. NO: 9305

60 3109326 RE 0 SUPERIORE MOAWK CMP 51-478-48 MS8783

Description: CABLE: LAN CATEGORY 5E, INDOOR/OUTDOOR RATED DATA, 25 PAIR 23/24 AWG, SOLID CONDUCTORS WITH COLOR CODED PLASTIC INSULATION, CORRUGATED, ALUMINUM TAPE SHIELD & WATERPROOF FLOODING COMPOUND, OUTER JACKET, BLACK POLYOLEFIN INSULATION, MINIMUM QUANTITY 5 REELS IN STOCK AT ALL TIMES, F.I. 03/10/08, SPEC. NO: 5285, UOM: 1000' REEL

End of Report

CERTIFICATION REGARDING A DRUG FREE WORKPLACE

Pursuant to the definitions regarding a Drug Free Workplace provided in the Drug-Free Workplace Act of 1988, the Illinois Drug Free Workplace Act, 30 ILCS 580/1 *et seq.*, the Illinois Substance Abuse Prevention on Public Works Projects Act, 820 ILCS 265/1 *et seq.*, the Federal Acquisition Regulation System ("FAR"), Procedures for Transportation Workplace Drug & Alcohol Testing Programs, 49 CFR 40, and Prevention of Alcohol Misuse & Prohibited Drug Use in Transit Operation, 49 CFR 655, _____ ("Contractor") certifies to the best of its knowledge and belief that it and its principals:

1. Maintain a workplace(s) (i.e. the site(s) for the performance of work done by the Contractor in connection with this contract) safe and free from "controlled substances" as described in the Controlled Substances Act (21 U.S.C. 812) and as further described in regulations 21 CFR 1308.11 - 1308.15.
2. Have neither been convicted, including entering a plea of 'nolo contendere,' nor had sentence imposed by any judicial body charged with the responsibility to determine violations of Federal or State criminal drug statutes.
3. Publish and give notice to its employees and sub-contractors that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the Contractor's workplace, and also that actions will be taken against any and all employees and sub-contractors found to be violation of same.
4. Provide that all employees engaged in the performance of the contract receive a copy of the above statement, that the employee will abide by the terms of this statement, and that the employee will notify the employer in writing of the employee's conviction no later than five (5) calendar days after such conviction.
5. Provide for appropriate action against an employee for violation of any and all of these rules and that an employee convicted of drug abuse must satisfactorily participate in a drug abuse assistance or rehabilitation program approved for such purposes by Federal, State, or local health or law enforcement or other appropriate agency.
6. Comply with all drug and alcohol policies, testing programs and reporting requirements set forth in 49 CFR 40 and 49 CFR 655 whenever the Contractor, its employees, or sub-contractor(s) perform one or more of the following functions considered "safety-sensitive", as defined in 49 CFR 655:
 - a. Operating a revenue service vehicle, including when not in revenue service;
 - b. Operating a non-revenue service vehicle, when required to be operated by a holder of a Commercial Driver's License;
 - 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; or
 - e. Carrying a firearm for security purposes.
7. Have in place a written program which meets or exceeds the program requirements of the Substance Abuse Prevention on Public Works Projects Act (820 ILCS 265/1 *et seq.*) to be filed with the Authority and made available to the general public, or have in place a collective bargaining agreement which deals with the subject matter of the Substance Abuse Prevention on Public Works Projects Act (820 ILCS 365/1 *et seq.*).
8. Will otherwise comply with all drug and alcohol policies set forth in applicable Federal, State and local laws and regulations, including, but not limited to the Drug-Free Workplace Act of 1988, FAR, Illinois Drug Free Workplace Act, 49 CFR 40 and 49 CFR 655 in such version, prior or subsequent to amendment or revision, as is currently enforced or enforceable at and during the execution and performance of this Contract.

In addition to other remedies, the Contractor's failure to comply with any part of the requirements of the Drug-Free Workplace Act of 1988, FAR, Illinois Drug Free Workplace Act, the Illinois Substance Abuse Prevention on Public Works Projects Act, 49 CFR 40 or 49 CFR 655, may render the Contractor subject to any or all of the following: suspension of payments, termination of contract for default, suspension or debarment.

Signature and Title of Authorized Official

Date

LOBBYING CERTIFICATION

Certification for Contracts, Grants, Loans and Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:

- (1) No Federal 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.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid 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 this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
- (3) The undersigned shall require that the language of this certification be included in the award documents for all sub awards at all tiers (including subcontracts, sub grants, and contracts under grants, loans and cooperative agreements) and that all sub recipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. 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.

Executed this _____ day of _____, 20_____.

By: _____
(Type or print name of contractor)

(Signature of authorized officer)

(Title of authorized officer)

**CERTIFICATION OF PRIMARY PARTICIPANT
REGARDING DEBARMENT, SUSPENSION, AND OTHER
RESPONSIBILITY MATTERS**

_____, certifies to the best of our knowledge and belief that it and
(Company's name)

its principles:

1. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
2. Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of frauds 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.
3. Are not presently indicated for or otherwise criminally or civilly charged by a government entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph (2) of this certification; and
4. Have not within a three-year period preceding this application/ proposal had one or more public transactions (Federal, State, or local) terminated for cause or default.

THE PRIMARY PARTICIPANT (APPLICANT OR POTENTIAL CONTRACTOR FOR A MAJOR THIRD PARTY CONTRACT) _____ CERTIFIES OR
(Company name)
AFFIRMS THE TRUTHFULNESS AND ACCURACY OF THE CONTENTS OF THE STATEMENTS SUBMITTED ON OR WITH THIS CERTIFICATION AND UNDERSTANDS THAT THE PROVISIONS OF 31 U.S.C. SECTIONS 3801 *ET SEQ.* ARE APPLICABLE THERETO.

(Signature and Title of Authorized Official)

If you are unable to certify to any of the statements in this certification, the participant shall attach an explanation to this certification.

**CERTIFICATION OF LOWER TIER PARTICIPANT
REGARDING DEBARMENT, SUSPENSION, AND OTHER
RESPONSIBILITY MATTERS**

_____, certifies to the best of our knowledge and belief that it and
(Company's name)

its principles:

1. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
2. Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of frauds 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.
3. Are not presently indicated for or otherwise criminally or civilly charged by charged by a government entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph (2) of this certification; and
4. Have not within a three-year period preceding this application/ proposal had one or more public transactions (Federal, State, or local) terminated for cause or default.

THE LOWER TIER PARTICIPANT (APPLICANT OR POTENTIAL CONTRACTOR FOR A MAJOR
THIRD PARTY CONTRACT) _____ CERTIFIES
(Company name)
OR AFFIRMS THE TRUTHFULNESS AND ACCURACY OF THE CONTENTS OF THE STATEMENTS
SUBMITTED ON OR WITH THIS CERTIFICATION AND UNDERSTANDS THAT THE PROVISIONS OF
31 U.S.C. SECTIONS 3801 *ET SEQ.* ARE APPLICABLE THERETO.

(Signature and Title of Authorized Official)

If you are unable to certify to any of the statements in this certification, the participant shall attach an explanation to this certification.

PROPOSAL (Continued)
TO BE EXECUTED BY A CORPORATION

The undersigned hereby acknowledges having received a full set of CONTRACT DOCUMENTS (Requirements for Bidding and Instructions to Bidders; General Conditions; Standard Government Requirements; Special Conditions Disadvantaged Business Enterprise Commitment; Special Conditions, if any, issued with the specifications; and all other forms, certificates, and documents issued with the specifications) AND ADDENDA NOS. (none unless indicated here)

<small>BIDDER MUST INSERT ADDENDA NUMBERS HERE - IF ANY</small>

And the undersigned agrees, if awarded the contract, to perform the contract in accordance with the terms and conditions of the Contract Documents and Addenda, if any, thereto. Notice to the undersigned may be served by mailing to the address hereinafter set forth.

FURTHER, THE UNDERSIGNED, BEING DULY SWORN, DEPOSES AND STATES ON OATH THAT the undersigned has not entered into any agreement with any other bidder or prospective bidder or with any other person, firm or corporation relating to the price or prices named within the undersigned proposal or any other proposal, nor any agreement or arrangement under which any person, firm or corporation is to refrain from bidding, nor any agreement or arrangement for any act or omission in restraint of free competition among bidders, and has not disclosed to any person, firm or corporation the terms of the undersigned's proposal or the price or prices named herein. As required by Section 33E-11 of the Illinois Criminal Code of 1961, as amended (the "Act"), the undersigned certifies that the undersigned contractor or any agent, partner, employee or officer of the contractor is not barred from contracting with any unit of state or local government as a result of engaging in or being convicted of either bid-rigging in violation of Section 3 of Article 33E or bid-rotating in violation of Section 4 of Article 33E of the Act or any similar offenses of any state or the United States that contain the same elements as the offenses of bid-rigging or bid-rotating.

Name of Corporation: _____
(Print or Type Name of Corporation)

Business Address: _____
(Print or Type Street, City, State and Zip Code)

<p>BY: _____ SIGNATURE OF AUTHORIZED OFFICER*</p> <p>Title of Signatory: _____ <small>(Print or Type)</small></p> <p><small>*Note: If signed by any person other than the corporate President or Vice President, a certified copy of a resolution or by-law authorizing such person to sign must accompany this Proposal.</small></p>

State of _____

County of _____

Signed and Sworn to before me on:

by _____
(Printed name of Authorized Officer)

(Signature of Notary Public)

IF BIDDER IS A CORPORATION - THIS PAGE MUST BE EXECUTED

PROPOSAL (Continued)
TO BE EXECUTED BY A SOLE PROPRIETOR

The undersigned hereby acknowledges having received a full set of CONTRACT DOCUMENTS (Requirements for bidding and Instructions to Bidders; General Conditions; Standard Government Requirements; Special Conditions Disadvantaged Business Enterprise Commitment; Special Conditions, if any, issued with the specifications; and all other forms, certificates, and documents issued with the specifications) AND ADDENDA NOS. (none unless indicated here)

BIDDER MUST INSERT ADDENDA NUMBERS HERE - IF ANY

And the undersigned agrees, if awarded the contract, to perform the contract in accordance with the terms and conditions of the Contract Documents and Addenda, if any, thereto. Notice to the undersigned may be served by mailing to the address hereinafter set forth.

FURTHER, THE UNDERSIGNED, BEING DULY SWORN, DEPOSES AND STATES ON OATH THAT the undersigned has not entered into any agreement with any other bidder or prospective bidder or with any other person, firm or corporation relating to the price or prices named within the undersigned proposal or any other proposal, nor any agreement or arrangement under which any person, firm or corporation is to refrain from bidding, nor any agreement or arrangement for any act or omission in restraint of free competition among bidders, and has not disclosed to any person, firm or corporation the terms of the undersigned's proposal or the price or prices named herein. As required by Section 33E-11 of the Illinois Criminal Code of 1961, as amended (the "Act"), the undersigned certifies that the undersigned contractor or any agent, partner, employee or officer of the contractor is not barred from contracting with any unit of state or local government as a result of engaging in or being convicted of either bid-rigging in violation of Section 3 of Article 33E or bid-rotating in violation of Section 4 of Article 33E of the Act or any similar offenses of any state or the United States that contain the same elements as the offenses of bid-rigging or bid-rotating.

Signature of Bidder: _____
(Signature of Bidder)

Name of Bidder: _____
(Print or Type)

Business Address: _____
(Print or Type Street Address)

(Print or Type City, State and Zip Code)

State of _____

County of _____

Signed and Sworn to before me on:

by _____
(Printed name of Authorized Officer)

(Signature of Notary Public)

IF BIDDER IS A SOLE PROPRIETOR - THIS PAGE MUST BE EXECUTED

(NOTARIAL SEAL)

PROPOSAL (Continued)
TO BE EXECUTED BY PARTNERSHIP OR JOINT VENTURE

The undersigned hereby acknowledges having received a full set of CONTRACT DOCUMENTS (Requirements for bidding and Instructions to Bidders; General Conditions; Standard Government Requirements; Special Conditions Disadvantaged Business Enterprise Commitment; Special Conditions, if any, issued with the specifications; and all other forms, certificates, and documents issued with the specifications) AND ADDENDA NOS. (none unless indicated here)

BIDDER MUST INSERT ADDENDA NUMBERS HERE - IF ANY

And the undersigned agrees, if awarded the contract, to perform the contract in accordance with the terms and conditions of the Contract Documents and Addenda, if any, thereto. Notice to the undersigned may be served by mailing to the address hereinafter set forth.

FURTHER, THE UNDERSIGNED, BEING DULY SWORN, DEPOSES AND STATES ON OATH THAT the undersigned has not entered into any agreement with any other bidder or prospective bidder or with any other person, firm or corporation relating to the price or prices named within the undersigned proposal or any other proposal, nor any agreement or arrangement under which any person, firm or corporation is to refrain from bidding, nor any agreement or arrangement for any act or omission in restraint of free competition among bidders, and has not disclosed to any person, firm or corporation the terms of the undersigned's proposal or the price or prices named herein. As required by Section 33E-11 of the Illinois Criminal Code of 1961, as amended (the "Act"), the undersigned certifies that the undersigned contractor or any agent, partner, employee or officer of the contractor is not barred from contracting with any unit of state or local government as a result of engaging in or being convicted of either bid-rigging in violation of Section 3 of Article 33E or bid-rotating in violation of Section 4 of Article 33E of the Act or any similar offenses of any state or the United States that contain the same elements as the offenses of bid-rigging or bid-rotating.

Firm Name: _____
(Print or Type Name of Firm)

Business Address: _____
(Print or Type Street Address)

(Print or Type City, State and Zip)

BY SIGNATURE(S):

All Partners or Joint Ventures of the Firm must sign this bid unless one Partner or Joint Venturer is authorized to sign for the Partnership or Joint Venture

(Partner)

(Partner)

(Partner)

(Partner)

(Partner)

State of _____

County of _____

Signed and Sworn to before me on:

by _____
(Printed name of Authorized Officer)

(Signature of Notary Public)

(NOTARIAL SEAL)

IF BIDDER IS A PARTNERSHIP OR JOINT VENTURE - THIS PAGE MUST BE EXECUTED

DISCLOSURE OF OWNERSHIP

All businesses submitting proposals are required to complete the appropriate portion of this form. If more space is needed attach additional pages. In signing and submitting its proposals, of which this Disclosure of Ownership form is a part, the business certifies that the information submitted on this Disclosure of Ownership form is correct as of the date of the submittal of the proposal.

1. IF THE BUSINESS IS A CORPORATION, check this box ☐ and complete:
If the shares of the Corporation are not listed on the New York Stock Exchange or any regional exchange, list then name of each person who possesses either nominal or beneficial ownership or 5% or more of the Corporation's stock (list below). If none, type or print "NONE" in space below.

FEIN #:

Corporate Headquarters Address:
City, State, Zip:

State of Incorporation:

Is the Corporation listed on the New York Stock Exchange? ☐ Yes ☐ No

If the corporation is listed on an exchange other than the New York Stock Exchange, the name of the exchange is _____

TYPED OR PRINTED NAME

%INTEREST

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

2. IF THE BUSINESS IS A PARTNERSHIP, check this box ☐ and complete:
The name of each general, limited or individual partner entitled to receive 5% or more of the profit derived from partnership activities (list below). If none, type or print "NONE" in space below.

TYPED OR PRINTED NAME

%INTEREST

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

3. IF THE BUSINESS IS A SOLE PROPRIETORSHIP, check this box ☐ and complete:
The name of each person other than the owner entitled to receive 5% or more of the profits derived from the activities of the business (list below). If none, type or print "NONE" in space below.

TYPED OR PRINTED NAME

%INTEREST

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

DISCLOSURE - TO BE COMPLETED BY ALL BIDDERS

PROPOSAL (continued)

ACCEPTANCE

The undersigned, on behalf of Chicago Transit Authority, A Municipal Corporation of the State of Illinois, hereby accepts the foregoing bid items as identified in the Proposal.

Contract Number

Total Amount of Contract \$

Dated this _____ day of _____, 2012, at Chicago, Illinois

Vice President, Purchasing & Warehousing

President

Approved as to form and legality, for the sole benefit of CTA. Subject to proper authorization and execution thereof:

Attorney