Request for Quotation

Caro Community Schools

Middle School Addition and Renovations
301 North Hooper, Caro MI 48723

1.0 Objective
Caro Community Schools (hereinafter referred to as "The Customer") intends to acquire a complete low voltage distribution system for its Middle School Addition and Renovations located 301 North Hooper, Caro MI 48723. The Customer here within requests proposals for the installation, testing, and acceptance of the distribution system described in the attached specifications and drawings by interested persons (hereinafter known as "The Vendor"). Prices quoted shall be all-inclusive and represent complete installation at the sites shown on the attached drawings and in the attached specifications. The Vendor shall be responsible for all parts, labor, and all other associated apparatus necessary to completely install, test, and turnover for acceptance to The Customer the low voltage distribution system detailed herein.

1.1 Schedule of Events
The following is the required schedule of events for this project. The schedule may change depending on the results of the responses and a final schedule will be established prior to contracting with the successful Vendor.

Event	**Date**	
1. Release of RFQ to Bidders	10/04/06	
2. Bidders' Conference	10/10/06	10:00 am
3. Site Survey	10/10/06	10:00 am
4. Last Day to Submit Questions	10/13/06	
5. Response from Bidders	10/18/06	10:00 am
6. Evaluation of Responses	10/23/06	
7. Contract Award	10/25/06	
7. Installation Start	10/30/06	
8. Installation Complete	01/02/07	
9. End-to-End Testing	01/02/07	
10. Review of Testing	01/09/07	
11. Final Punch List	01/09/07	
12. Acceptance by The Customer	01/15/07	

2.0 Response Submission
Responses to this RFQ must be submitted in sealed envelope and delivered by either express delivery or personally on or before 10/18/06 at 10:00 am EST, to Bill Pouliot at Caro Community Schools, 301 North Hooper, Caro MI 48723. The response packages will not be public opened. It is the sole responsibility of the respondents to ensure that their responses arrive in a timely manner. The Customer reserves the right to reject all late arrivals. The Vendor must submit three (3) copies of the response.

2.1 Costs Associated with Preparation of The Vendor's Response

The Customer will not be liable for any cost incurred by the respondents in preparing responses to this RFQ or negotiations associated with award of a contract.

2.2 Bidders' Conference

A Bidders' Conference will be held on 10/10/06 at 10:00 AM EST, Location Caro Community Schools, 301 North Hooper, Caro MI 48723 for the purpose of reviewing the RFQ and receiving questions from The Vendors that intend to respond to this RFQ. Attendance at this conference is mandatory. If The Vendor does not attend the Bidders' Conference, then The Vendor will not be allowed to attend the Site Survey or respond to the RFQ. Drawings reflecting the proposed work will be provided to the companies attending. Only one set of drawings will be allocated per company. The Vendors will be required to sign in to verify attendance. Subcontractors will not be allowed to represent The Vendor. An employee of The Vendor firm planning to respond must attend.

2.3 Site Survey

A Site Survey will be conducted at 10:00 AM EST on the same day as the Bidders' Conference. Attendance at the Site Survey is mandatory. If a Vendor does not attend the Site Survey, then that Vendor will not be allowed to respond to the RFQ. The Middle School Addition is presently under construction and will require all those are in attendance to wear a hard hat during the site survey.

2.4 Subcontractors

Should a contractor attend the Bidders' Conference and represent his or her respective company, that company will be prohibited from acting as a subcontractor to a Vendor responding should that Vendor be awarded the contract. Should The Vendor use subcontractors for portions of the work, the Customer reserves the right to reject any subcontractor without explanation or recourse by The Vendor or subcontractor.

2.5 Interpretation and Additional Information

2.5.1 Interpretations, Corrections, and/or Changes

Any interpretation, correction, or change of the RFQ will be made by an ADDENDUM. Interpretations, corrections, or changes to the RFQ made in any other manner will not be binding, and The Vendors shall not rely upon such interpretations, corrections, or changes. Interpretations, changes, or corrections will be issued by The Customer. Addenda will be emailed to all who are known to have attended the Bidders' Conference. Addenda will be issued as expeditiously as possible. It is the responsibility of The Vendors to determine whether all addenda have been received.

2.5.2 Addenda

It will be the responsibility of all respondents to contact The Customer prior to submitting a response to the RFQ to ascertain if any addenda have been issued, and to obtain any and all addenda, execute them, and return addenda with the response to the RFQ.

2.6 Questions

Questions regarding this RFQ must be submitted by email to drk@itgmi.com. Questions must be received full (3) three business days before RFQ due date and time or the questions will be considered null and void. Responses to all questions received in proper time frames will be emailed to all Vendors in attendance.

2.7 Proposal Binding Period

Prices quoted in The Vendor's response for all labor and materials will remain in effect for a period of at least ninety (90) business days from the issuance date of The Vendor's response.

2.8 Omissions

Omission in the proposal of any provision herein described shall not be construed as to relieve The Vendor of any responsibility or obligation requisite to the complete and satisfactory delivery, operation, and support of any and all equipment or services.

2.9 Prevailing Wage

The Customer will require that all vendors to pay “Prevailing Wages” as required by the State of Michigan PA 166 of 1965. The Customer reserves the right to require certified payroll.

2.9.1 Payment Conditions

Payment shall be made upon acceptance of the job by Innovative Technologies Group. Monthly progress payment may be made for the project and are not to exceed 90% of project price. The low voltage distribution system will be deemed acceptable when The Vendor delivers to The Customer:

- Cables which are 99.9% free of defective pairs of copper or fiber strands.
- Transmission test results on the horizontal cabling.
- Transmission test results on the backbone cables.
- As built Drawings

Acceptance shall be further defined as beneficial use by The Customer. Acceptance will be deemed "in full" upon receipt by The Vendor of a Notice of Acceptance issued by The Customer upon beneficial use and full implementation of the Terms and Conditions and Technical Specifications of the Contract. Upon receipt of the Notice of Acceptance, The Vendor shall notify The Customer in writing of a release of all liens for all materials and services associated with this project.

2.10 Warranty

Materials and workmanship hereinafter specified and furnished shall be fully guaranteed by The Vendor for 2 years from transfer of title against any defects. Defects which may occur as the result of faulty materials or workmanship within two years after installation and acceptance by The Customer shall be corrected by The Vendor at no additional cost to The Customer. The Vendor shall promptly, at no cost to The Customer, correct or re-perform (including modifications or additions as necessary) any nonconforming or defective work within two years after completion of the project of which the work is a part. The period of The Vendor's warranty(ies) for any items herein are not exclusive remedies, and The Customer has recourse to any warranties of additional scope given by The Vendor to The Customer and all other remedies available at law or in equity. The Vendor's warranties shall commence with acceptance of/or payment for the work in full.

If The Vendor procures equipment or materials under the Contract, The Vendor shall obtain for the benefit of The Customer equipment and materials warranties against defects in materials and workmanship to the extent such warranties are reasonably obtainable.

The Vendor shall apply and pass along to The Customer any additional warranties offered by the manufacturers, example Hubbell Mission Critical Warranty, at no additional costs to The

Customer.

This warranty shall in no manner cover equipment that has been damaged or rendered unserviceable due to negligence, misuse, acts of vandalism, or tampering by The Customer or anyone other than employees or agents of The Vendor. The Vendor's obligation under its warranty is limited to the cost of repair of the warranted item or replacement thereof, at The Vendor's option. Insurance covering said equipment from damage or loss is to be borne by The Vendor until full acceptance of equipment and services.

2.11 Inspection, Acceptance, and Title

Inspection and Acceptance will be at destination and upon successful installation unless otherwise provided. Title to/or risk of loss or damage to all items shall be the responsibility of the successful Vendor until acceptance by The Customer, unless loss or damage results from negligence by The Customer. If the materials or services supplied to The Customer are found to be defective or do not conform to the specifications, The Customer reserves the right to cancel the contract upon written notice to The Vendor and return products at The Vendor's expense, based upon the terms of the Contract.

The Customer shall at all times have access to the work wherever it is in preparation or progress, and The Vendor shall provide proper facilities for such access and for inspection.

The Vendor shall not close up any work until The Customer has inspected the work. Should The Vendor close up the work prior to inspection by The Customer, The Vendor shall uncover the work for inspection by The Customer at no cost to The Customer, and then recover the work according to the specification contained herein.

The Vendor shall notify The Customer in writing when the work is ready for inspection. The Customer will inspect the work as expeditiously as possible after receipt of notification from The Vendor.

2.12 Price Quotations

Price quotations are to include the furnishing of all materials, equipment, maintenance and training manuals, tools, and the provision of all labor and services necessary or proper for the completion of the work, except as may be otherwise expressly provided in the Contract Documents. The Customer will not be liable for any costs beyond those proposed herein and awarded. Time and materials quotes will be unacceptable. The Vendor shall include all applicable sales, consumer, use, and other similar taxes in the price quotations.

In case of discrepancy in computed proposal prices, the lowest combined value of individual units costs shall prevail.

2.13 Price Stability

Contract prices and discounts shall be fixed at the time of contract approval by The Customer and The Vendor. In the event of price changes, replacement equipment shall be purchased at the lower of contract or then current market price. In no case shall a price higher than contract price be paid for equipment proposed.

In the event that The Customer desires to purchase equipment or services not contained in the contract, future purchases will be determined using The Vendor-specified discount rate in the proposal from the manufacturer's suggested retail price as of the date of the order.

In no case shall the price exceed the favored Vendor prices.

2.14 Variation in Quantities and Configurations

Equipped and capacity requirements are the best estimates currently available. The Customer reserves the right to modify quantity and configuration requirements. The Vendor agrees to sell The Customer the revised quantity of items at the unit price as stated in the RFQ regardless of quantity changes.

2.15 Project Manager

The Vendor will provide an on-site, full-time, Project Manager who will act as a single point of contact for all activities regarding this project. The Project Manager will be required to make on-site decisions regarding the scope of the work and any changes required by the work. The Project Manager must be on the job at any time work is being performed or workers are present. The Project Manager will be totally responsible for all aspects of the work and shall have the authority to make immediate decisions regarding implementation or changes to the work. The Project Manager must be a management employee and will not be involved in personally performing craft installation work.

2.17 The Vendor Qualifications

2.17.1 Experience

The selected Vendor shall be fully capable and experienced in the telecommunications distribution system specified. To ensure the system has continued support, The Customer will contract only with Vendors having a successful history of sales, installation, service, and support.. The Vendor must have a minimum of five (5) years of experience.

The Vendor must have a Registered Communications Distribution Designer (RCDD) on staff who will be ultimately responsible for this project. The RCDD must have sufficient experience in this type project as to be able to lend adequate technical support to the field forces during installation, during the warranty period, and during any extended warranty periods or maintenance contracts.

2.17.2 References

The Customer may, with full cooperation of The Vendors, visit client installations to observe equipment operations and consult with references. Specified visits and discussion shall be arranged through The Vendors; however, The Vendor personnel shall not be present during discussions with references. The Vendor must provide a minimum of three (3) reference accounts at which similar work, both in scope and design, have been completed by The Vendor within the last two (2) years.

2.18 Prime Vendor

In the event multiple Vendors submit a joint response to this RFQ, a single Vendor shall be identified as the Prime Vendor. Prime Vendor responsibilities shall include performing overall project administration and serving as a focal point for The Customer to coordinate and monitor plans and schedules, maintain project budget and status information, administer changes required, preside over other Vendors participating or present at The Customer meetings, and oversee preparation of reports and presentations. Prime Vendor shall also prepare and present a consolidated invoice for work performed. The Customer shall issue only one (1) check for each consolidated invoice. Prime Vendor shall remain responsible for performing tasks associated with

installation and implementation of Prime Vendor's portion of the contract.

2.19 Equal Employment Opportunity

In connection with the execution of this Contract, The Vendors and subcontractors shall not discriminate against any employee or applicant for employment because of race, religion, color, sex, age, or national origin. The Vendors shall take affirmative action to ensure that minority and disadvantaged applicants are employed and employees are treated during their employment without regard to race, religion, color, sex, age, or national origin.

2.20 Compliance with Laws and Regulations

The Vendor performance of the work shall comply with applicable federal, state, and local laws, rules, and regulations. The Vendor shall give required notices, shall procure necessary governmental licenses and inspections, and shall pay without burden to The Customer, all fees and charges in connection therewith unless specifically provided otherwise. In the event of violation, The Vendor shall pay all fines and penalties, including attorney's fees, and other defense costs and expenses in connection therewith.

2.20.1 Federal Communications Commission

Equipment requiring FCC registration or approval shall have received such approval and shall be appropriately identified.

2.20.2 Codes, Standards, and Ordinances

All work shall conform to the latest edition of the National Electrical Code®, the Building Code, and all local codes and ordinances, as applicable. ANSI/TIA/EIA-568-A and ANSI/TIA/EIA-569-A shall be adhered to during all installation activities. Methodologies outlined in the latest edition of the BICSI Telecommunications Distribution Methods Manual shall also be used during all installation activities. Should conflicts exist with the foregoing, the authority having jurisdiction for enforcement will have responsibility for making interpretation.

2.21 Safety

The Vendor shall take the necessary precautions and bear the sole responsibility for the safety of the methods employed in performing the work. The Vendor shall at all times comply with the regulations set forth by federal, state, and local laws, rules, and regulations concerning "OSHA" and all applicable state labor laws, regulations, and standards. The Vendor shall indemnify and hold harmless The Customer from and against all liabilities, suits, damages, costs, and expenses (including attorney's fees and court costs) which may be imposed on The Customer because of The Vendor, subcontractor, or supplier's failure to comply with the regulations stated herein.

2.22 Patents and Royalties

The Vendor, without exception, shall indemnify and hold harmless The Customer and its employees from any liability of any nature or kind, including costs and expenses for, or on account of, any trademarked, copyrighted, patented, or non patented invention, process, or article manufactured or used in the performance of the Contract, including its use by The Customer. If The Vendor or subcontractor uses any design, device, or materials covered by letters, patent, trademark, or copyright, it is mutually understood and agreed without exception that the proposal prices shall include all royalties or cost arising from the use of such design, device, or materials in any way involved in the work.

2.23 Indemnification

The Vendor shall indemnify and hold harmless The Customer, its agents, and employees from or on account of any injuries or damages, received or sustained by any person or persons, during or on account of any operation connected with this Contract; or by consequence of any negligence (excluding negligence by The Customer, its agents, or employees) in connection with the same; or by use of any improper materials or by or on account of any act or omission of said Vendor or its subcontractors, agents, servants, or employees. The Vendor further agrees to indemnify and hold harmless The Customer, its agents, or employees, against claims or liability arising from or based upon the violation of any federal, state, county, city, or other applicable laws, bylaws, ordinances, or regulations by The Vendor, its agents, associates, or employees.

The indemnification provided above shall obligate The Vendor to defend at its own expense or to provide for such defense, at The Customer's option, of any and all claims of liability and all suits and actions of every name and description that may be brought against The Customer which may result from the operations and activities under this Contract whether the installation operations be performed by The Vendor, subcontractor, or by anyone directly or indirectly employed by either.

The award of this Contract to The Vendor shall obligate The Vendor to comply with the foregoing indemnity provision; however, the collateral obligation of insuring this indemnity must be complied with as set forth.

2.24 Liability and Insurance

The Vendor shall assume the full duty, obligation, and expense of obtaining and maintaining necessary insurance.

2.24.1 Insurance Coverage

The Vendor shall be fully liable to provide and maintain in force during the life of this Contract, such insurance, including Public Liability Insurance, Product Liability Insurance, Auto Liability Insurance, Worker's Compensation, and Employer's Liability Insurance as will assure to The Customer the protection contained in the foregoing indemnification provision undertaken by The Vendor. Such policies shall be issued by United States Treasury-approved companies authorized to do business in the State of Michigan and having agents upon whom service of process may be made in The Customer and shall contain as a minimum, the following provisions, coverage, and policy limits of liability.

2.24.1.1 General Liability

General Liability Insurance shall protect The Customer, The Vendor, subcontractor, agents, and employees from claims for damages. The limits of liability provided by such policy shall be no less than One Million Dollars (U.S. $1,000,000.00) per occurrence combined single limit bodily injury and property damage, and an amount not less than One Million Dollars (U.S. $1,000,000.00) for damages on account of all occurrences.

2.24.1.2 Product Liability

Product Liability or Completed Operations Insurance shall have bodily injury limits of liability of not less than One Million Dollars (U.S. $1,000,000.00) per person; Five One Million Dollars (U.S. $1,000,000.00) per occurrence, and One Million Dollars (U.S. $1,000,000.00) aggregate.

2.24.1.3 Auto Liability

Auto Liability Insurance shall have bodily injury limits of not less than One Million Dollars (U.S. $1,000,000.00) per occurrence and property damage limits of not less than One Million Dollars (U.S. $1,000,000.00).

2.24.1.4 Workers' Compensation and Employer's Liability

Workers' Compensation and Employer's Liability Insurance shall meet minimum requirements set by the State of Michigan, but in no case less than One Million Dollars (U.S. $1,000,000.00).

2.24.1.5 Proof of Insurance

The Vendor shall furnish to The Customer a Certificate of Insurance or duplicate policies of insurance described above which specifically protect The Customer. This will be accomplished by naming The Customer as a named insured under the policy and by providing an endorsement under the terms of which the insurer specifically agrees not only to pay any claims incurred by or resulting to The Customer, but also agrees to enter a defense on behalf of The Customer. The defense includes any and all suits or actions, in which the liability of The Customer is vicarious and is predicated upon allegation of some act of omission by The Vendor, subcontractor, or his or her agents. This proof shall be received within four (4) working days after notice of award. Purchase order(s) will not be issued until Certificates of Insurance are received.

Such certification must contain a provision for notification of The Customer thirty (30) days in advance of any material change in coverage or cancellation. Notification shall be in writing and signed in ink by a duly authorized officer of the Insurer.

Insurance Companies are subject to approval and may be rejected by The Customer without stated cause.

2.24.1.6 Claims

In any and all claims against The Customer, or any of their agents or employees by any employee of The Vendor, any subcontractor, or anyone directly or indirectly employed by any of the contracting parties, or anyone for whose acts any of them may be liable, the indemnification obligation under paragraph 2.23 shall not be limited in any way by any limitation on the amount or types of damages, compensation acts, disability benefit acts, or other employee benefit acts.

2.25 Bonding

2.25.1 Performance and Payment Bonding

Within four (4) working days after notice of award, The Vendor is required to have a valid Performance in force covering the work performed up to the acceptance by The Customer. The Bond must be in the amount of one hundred (100) percent of the Contract amount, guaranteeing to The Customer the completion and performance of the work covered in such as well as full payment of all suppliers, agents, laborers, or subcontractors employed in the performance of the project. Such Bond shall be in a form and with a surety acceptable to The Customer and shall provide for the protection of all persons supplying labor or materials used for the performance of the work.

The Vendor agrees to keep such Bond, or a replacement thereof, in force at all times during the course of the performance under this project. In addition to the foregoing requirements, such bond shall contain the provision, whether by attaching endorsements or supplemental agreements, guaranteeing to The Customer the successful completion of the project. The Vendor

may comply with the requirements of this provision by causing said Bond to specifically name The Customer as one of the parties to whom the protection afforded by said Bond is extended or as an alternate, may furnish The Customer with a separate Performance Bond meeting the same criteria.

2.25.2 Qualification of Surety

The Performance and Payment Bond must be executed by a Surety Company of recognized standing, authorized to do business in the State of Michigan and having a resident agent in The Customer. The Surety Company shall hold a current certificate of authority as acceptable surety on Federal Bonds, in accordance with U.S. Department of Treasury Circular 570, Current Revision.

2.25.3 Response Security

A Bid Bond, Certified Check, Cashier's Check, Treasurer's Check, or bank draft of any State or National Bank representing five (5) percent of the total amount of The Vendor's response must accompany the response package. The bonding company must appear on the U.S. Treasury list. Proposal securities will be retained until after award. No response will not be considered unless response security is submitted with the response package.

2.25.4 Release of Lien

Request for payment must be accompanied by a Contractor's Affidavit and Certificate to be executed with the Purchase Order.

2.25.5 Failure to Complete and Liquidated Damages

Because the actual damages for delay in completion are impractical to determine, the successful Vendor and its sureties shall be liable for and shall pay to The Customer stipulated and fixed, agreed, and liquidated damages the sum of two Hundred Dollars (U.S. $200.00) for each calendar day of delay beyond the scheduled implementation date until all work is completed and accepted. Documented days of delay out of the control of The Vendor must be email to drk@itgmi.com within 6 hrs of delay and will be credited toward the completion date.

2.25.6 Bids will be evaluated as follows:

1. Compliance with bid documents
2. Completeness of bid
3. Contractor qualifications
4. Price
5. References

2.25.7 Right to Reject

The Customer reserves the right to reject all bids. Responses should be submitted initially with the most favorable terms that The Vendor can propose.

2.26 Special Conditions

The facility is an educational facility as such; activities in inhabited part buildings are to be done after 3:30 PM till 7:00 AM or with The Customers consent. During school hours The Customer shall not be interrupted by The Vendor's work activities. This applies to existing Middle and High

School Buildings only. The Vendor will be required to work around all of the conditions listed above, as well as working with The Customer staff to minimize disruptions to normal Customer activities.

2.27 Cancellation

In the event provisions of this RFQ are violated by The Vendor, The Customer may give written notice to The Vendor stating the deficiencies. Unless deficiencies are corrected within five (5) working days, recommendations will be made to The Customer for immediate cancellation. The Customer reserves the right to terminate immediately any contract resulting from this RFQ for failure to correct deficiencies.

2.28 Advertising

The Vendor agrees not to use the results from this RFQ as a part of any commercial advertising without prior written approval of The Customer.

2.29 Installation Guidelines

All work performed on this project will be installed in accordance with the current edition of the National Electrical Code®, the current edition of the National Electrical Safety Code®, the current edition of the BICSI Telecommunications Distribution Methods Manual, the current edition of the BICSI Cabling Installation Manual, the latest issue of the ANSI/TIA/EIA Standards as published by Global Engineering Documents as TIA/EIA Telecommunications Building Wiring Standards, and all local codes and ordinances.

BASIC CONSTRUCTION MATERIALS AND METHODS

A. PART 1 GENERAL
1. SUMMARY

Provide equipment, materials, labor, and services not specifically mentioned or shown which may be necessary to complete or perfect all parts of this installation and in compliance with requirements stated or reasonably inferred by the Contract Documents

2. SUBMITTALS

Submit the following Shop Drawings:

1) Manufacturer's technical data for each product including product description, specifications including labeling or listing by an agency acceptable to the Engineer/Designer, and storage requirements.

2) Firestop design basis documentation that shall include schedule indicating each type of communication penetration, type of building construction being penetrated including the hourly resistance rating of floor, wall, or other partition of building construction into which firestop design will be installed, and firestop device or system proposed for use.

3. REFERENCES

a. ASTM E814, Standard Method of Fire Tests of Through-Penetration Fire Stops.

b. UL 1479, Fire Tests of Through-Penetration Firestops.

c. UL Fire Resistance Directory: Through Penetration Firestop Devices (XHCR) and Through Penetration Firestop Systems (XNEZ).

d. ASTM E 119, Fire Tests of Building Construction and Materials (for fire-rated architectural barriers).

e. 1999 NFPA National Electrical Code, Section 800-52, Paragraph 2(b), Spread of Fire and Products of Combustion.

f. 1998 edition of the BICSI Telecommunications Distribution Methods Manual, Chapter 22, Firestopping.

g. Factory Mutual Approval Guide.

h. ULC List of Equipment and Materials, VOL. II.

i. Installed firestopping systems shall meet approval of authorities having jurisdiction.

B. PART 2 PRODUCTS

1. RETROFIT/CUTOVER

a. Furnish equipment, materials, labor and services, and perform operations required to retrofit/cutover existing telephone cabling systems. Removals shown are general indications and may not indicate full extent of removals which may be required to complete Work.

b. Furnish equipment, materials, labor and services, and performing operations required to enable continued functioning of existing telephone system until cutover to new system.

c. Remove wiring, punch blocks, cabinets, outlets, raceways, and equipment not required for new system.

1) Abandon flush mounted device and junction boxes and cover with blank plate.

2) Remove surface telecommunications outlets and pathways unless said removal will damage the existing finish on surfaces, or physically damage the structure.

3) Remove wiring from abandoned conduits and raceways.

d. Provide removals, relocations, and alterations to existing systems, equipment, and materials. Perform the Work in neat and workmanlike manner in accordance with the latest edition of the National Electrical Code, the BICSI Telecommunications Cabling Installation Manual, and all ANSI/TIA/EIA standards documents relevant to this installation. Unless otherwise noted, hangers, foundations, and structural supports for said equipment and materials shall be removed.

e. Existing equipment or material shall not be reused without specific approval of the Owner's Representative except as noted below:

f. Equipment and materials to be removed and not desired by the Owner shall be removed from site promptly.

g. Equipment and material to be removed and that is desired by the Owner shall be moved to an on-site storage location as directed by the Owner.

2. REMOVAL AND REPLACEMENT OF EXISTING CEILINGS

a. Carefully remove existing ceilings as required to perform the work. Store removed tiles in an area designated by the Owner. Modify and augment existing suspension systems as necessary. Restore ceiling systems to their original finish.

b. Repair any damage to ceilings due to modifications, removal, and replacement of same. Replace damaged ceiling tiles, including tiles with holes or openings left as a result of demolition, with materials of like kind.

3. CUTTING AND PATCHING

a. Provide openings, cutting, coring, and patching of openings in existing building construction as required. Patching includes openings and voids left in existing construction as a result of demolition.

b. The Work shall include necessary assemblies and materials to maintain required fire ratings.

c. Perform cutting as to not impair structural stability of building construction and systems. Do not drill holes or weld attachments to beams and other structural members without prior written approval from the Owner's Representative.

d. The Work shall be done by crafts persons skilled in the particular trades affected.

e. Patching materials shall match existing materials in type and quality. Patching shall be done in a manner to match appearance of adjacent surfaces.

4. CLEANING

a. Cleaning shall be performed to the satisfaction of the Owner's Representative.

b. Unless otherwise indicated, clean shall mean free of dust, dirt, mud, debris, oil, grease, residues, and contamination. Acceptability shall be determined by sight, touch, and wiping with a clean soft cloth and suitable cleaning agent.

5. PAINTING

a. Touch up marred and bared surfaces of primed, galvanized, and finish painted equipment, materials, and accessories installed.

b. Restore patched surfaces as close to the original condition and finish as reasonably possible. Where patching occurs in smooth painted surface, extend final paint coat over entire unbroken surface containing patch, after patched area has received two coats of primer and two coats of finished paint.

6. FIRESTOPPING

a. General

1) New and existing raceways, cable trays, and cables for power, data, and communications systems penetrating non-rated and fire-rated floors, walls, and other partitions of building construction shall be firestopped where they penetrate new or existing building construction.

2) Firestopping shall be accomplished by using a combination of materials and devices, including penetrating raceway, cable tray, or cables, required to make up complete firestop.

3) Verify that cabling and other penetrating elements and supporting devices have been completely installed and temporary lines and cables have been removed.

b. Installation

1) Select appropriate type or types of through penetration firestop devices or systems appropriate for each type of communications penetration and base each selection on criteria specified herein.

2) Selected systems shall not be less than the hourly time delay ratings indicated in the Contract Documents for each respective fire-rated floor, wall, or other partition of building construction. Firestop for each type of communications penetration shall conform to requirements of an independent testing laboratory design drawing or manufacturer's approved modification when used in conjunction with details shown on the Drawings.

3) Perform all necessary coordination with trades constructing floors, walls, or other partitions of building construction with respect to size and shape of each opening to be constructed and device or system approved for use in each instance.

4) Coordinate each firestop selection with adjacent Work for dimensional or other interference and for feasibility. In areas accessible to public and other "finished" areas, firestop systems Work shall be selected, installed, and finished to the quality of adjacent surfaces of building construction being penetrated.

5) Use materials that have no irritating or objectionable odors when firestopping is required in existing buildings and areas that are occupied.

6) Provide damming materials, plates, wires, restricting collars, and devices necessary for proper installation of firestopping. Remove combustible installation aids after firestopping material has cured.

7) All firestops shall be installed in accordance with the manufacturer's instructions in order to maintain the specific rating assigned by the independent testing laboratory.

c. Additional requirements for existing penetrations are as follows:

1) Existing raceways, cable trays, and cabling that penetrate existing building construction shall be firestopped to the extent necessary to fill cavities that may exist between existing building construction and existing communications penetrations or existing conduit sleeve, and between existing conduits and existing conduit sleeve.

2) Assemblies consisting of individual steel hat type restricting collars filled with intumescent type materials that completely surround communications penetration shall be used for nonmetallic raceways and cabling.

d. If required by inspecting authorities:

1) Expose and remove firestopping to the extent directed by inspecting authority to permit his or her inspection.

2) Reinstall new firestopping and restore Work where removed for inspection.

7. SLEEVES

a. Provide sleeves for existing Middle and High School Buildings for cable penetrations.

1) Openings to accept sleeves in existing building construction shall be provided under this division of the Specifications. Refer to Article, CUTTING AND PATCHING in this Section.

2) Use schedule 40 PVC sleeves for penetrations through exterior masonry/concrete walls and foundations, concrete floor slabs on grade.

3) Use electrical metallic tubing EMT sleeves for penetrations through interior masonry, concrete and gypsum walls.

c. Secure sleeves firmly in place using filling and patching materials (grout) that match with surrounding construction.

d. In floor penetrations, extend sleeve 4" above finished floor unless noted otherwise. In wall penetrations, cut sleeves flush with wall surface and use metal escutcheon plates in finished interior areas.

e. Seal voids between sleeves and building construction with joint sealants. Make allowances for and coordinate the Work with installation of firestopping, conduit insulation, and waterproofing, as applicable.

f. The Contractor shall be fully responsible for final and correct location of sleeves.

1) Sleeves which are omitted or incorrectly located in existing building construction, shall be corrected and provided by The Vendor.

8. PENETRATIONS OF BUILDING SURFACES

a.. Above Grade Level or Non-waterproof Areas

1) Seal each annular space between conduits or cable and building surfaces. Pack space with Oakum, other rope packing, or backer rod materials and cover with fire-resistant sealant or other protection materials.

2) Provide sleeves as specified in Article, SLEEVES in this Section for conduit and cable penetrations. Seal each space between conduit or cable and sleeve. Sealing shall be as specified in above paragraph.

b. Waterproof Areas (Above and Below Grade)

1) In new and existing construction for penetrations through concrete below grade, ground water

level or in other waterproof areas, provide through-wall and floor seals having galvanized fittings, sealing assemblies, and sleeves as specified in SECTION SUPPORTING DEVICES.

2) In existing construction when core bore drilled openings are used for conduit penetrations below grade, ground water level, or in other waterproof areas, provide sealing.

LOW VOLTAGE DISTRIBUTION SYSTEM

A. PART 1 GENERAL

1. SUMMARY

a. Section Includes: Equipment, materials, labor, and services to provide telephone and data distribution system including, but not limited to:

1) Raceway, boxes, and cable tray.
2) Telephone and data cabling terminations.
3) Optical fiber and terminations.
4) Telecommunications outlets.
5) Terminal blocks/cross-connect systems.
6) Equipment racks and cabinets.
7) System testing.
8) Terminal blocks and cross-connects.
9) Documentation and submissions.

b. Provide all equipment, materials, labor, and services, not specifically mentioned or shown, which may be necessary to complete or perfect all parts of the installation. Ensure that they are in compliance with requirements stated or reasonably inferred by the contract documents.

c. Work not included:

The following work will be done by others:
(a) Off-site services.
(b) Providing 120V wiring and outlets.
(c) Providing data switches, servers, computers, telephones and other active devices.

2. REFERENCES

a. Design, manufacture, test, and install telecommunications cabling networks per manufacturer's requirements and in accordance with NFPA-70 (National Electrical Code®), state codes, local codes, requirements of authorities having jurisdiction, and particularly the following standards:

ANSI/TIA/EIA Standards
1) ANSI/TIA/EIA-568-A -- Commercial Building Telecommunications Cabling.
2) ANSI/TIA/EIA-568-A-1 -- Propagation Delay and Delay Skew Specifications for 100 ohm 4-pair Cable.
3) ANSI/TIA/EIA-568-A-2 - Commercial Building Standards Updates
4) ANSI/TIA/EIA-569-A -- Commercial Building Standard for Telecommunications Pathways and Spaces.
5) ANSI/TIA/EIA-606 -- The Administration Standard for the Telecommunications Infrastructure of

Commercial Buildings.
6) ANSI/TIA/EIA-607 -- Commercial Building Grounding and Bonding Requirements for Telecommunications.
7) ANSI/TIA/EIA TSB-67 -- Transmission Performance Specifications for Field Testing of Unshielded Twisted-Pair Cabling Systems.
8) ANSI/TIA/EIA TSB-75 -- Additional Horizontal Cabling Practices for Open Offices.

b. Install cabling in accordance with the most recent edition of BICSI® publications:

1) BICSI -- Telecommunications Distribution Methods Manual.
2) BICSI -- Cabling Installation Manual.

c. Federal, state, and local codes, rules, regulations, and ordinances governing the work, are as fully part of the specifications as if herein repeated or hereto attached. If the contractor should note items in the drawings or the specifications, construction of which would be code violations, promptly call them to the attention of the owner's representative in writing. Where the requirements of other sections of the specifications are more stringent than applicable codes, rules, regulations, and ordinances, the specifications shall apply.

3. PERMITS, FEES, AND CERTIFICATES OF APPROVAL

The Vendor will make application and pay for any required permits.

4. SYSTEM DESCRIPTION

The will be responsible for low voltage system to include complete cable system for the new and existing Middle School to include but not limited Plenum rated Cat 5e distribution system, projector installation, classroom sound enhancement systems, video distribution system and backbone systems to High School AV room.

5. SUBMITTALS
1) Submit to the engineer/designer shop drawings, product data, by submitting shop drawings, product data, and samples, The Vendor represents that he or she has carefully reviewed and verified materials, quantities, field measurements, and field construction criteria related thereto. It also represents that the contractor has checked, coordinated, and verified that information contained within shop drawings, product data, and samples conform to the requirements of the work and of the contract documents. The engineer/designer remains responsible for the design concept expressed in the contract documents as defined herein.

2) The engineer's/designer's approval of shop drawings, product data, and samples submitted by the contractor shall not relieve the contractor of responsibility for deviations from requirements of the contract documents, unless the contractor has specifically informed the engineer/designer in writing of such deviation at time of submittal, and the engineer/designer has given written approval of the specific deviation. The contractor shall continue to be responsible for deviations from requirements of the contract documents not specifically noted by the contractor in writing, and specifically approved by the engineer in writing.

3) The engineer's/designer's approval of shop drawings, product data, and samples shall not relieve the contractor of responsibility for errors or omissions in such shop drawings, product data, and samples.

4) The engineer's/designer's review and approval, or other appropriate action upon shop

drawings, product data, and samples, is for the limited purpose of checking for conformance with information given and design concept expressed in the contract documents. The engineer's/designer's review of such submittals is not conducted for the purpose of determining accuracy and completeness of other details such as dimensions and quantities, or for substantiating instructions for installation or performance of equipment or systems, all of which remain the responsibility of the contractor as required by the contract documents. The review shall not constitute approval of safety precautions or of construction means, methods, techniques, sequences, or procedures. The engineer's/designer's approval of a specific item shall not indicate approval of an assembly of which the item is a component.

a. Perform no portion of the work requiring submittal and review of shop drawings, product data, or samples until the respective submittal has been approved by the engineer. Such work shall be in accordance with approved submittals.

b. Submit shop drawings, product data, and samples as a complete set within ten (10) days of award of contract.

8. DELIVERY, STORAGE, AND HANDLING

Protect equipment during transit, storage, and handling to prevent damage, theft, soiling, and misalignment. Coordinate with the owner for secure storage of equipment and materials. Do not store equipment where conditions fall outside manufacturer's recommendations for environmental conditions. Do not install damaged equipment; remove from site and replace damaged equipment with new equipment.

9. SEQUENCE AND SCHEDULING

1. Release of RFQ to Bidders	10/04/06	
2. Bidders' Conference	10/10/06	10:00 am
3. Site Survey	10/10/06	10:00 am
4. Last Day to Submit Questions	10/13/06	
5. Response from Bidders	10/18/06	10:00 am
6. Evaluation of Responses	10/23/06	
7. Contract Award	10/25/06	
7. Installation Start	10/30/06	
8. Installation Complete	01/02/07	
9. End-to-End Testing	01/02/07	
10. Review of Testing	01/09/07	
11. Final Punch List	01/09/07	
12. Acceptance by The Customer	01/15/07	

10. USE OF THE SITE

Access to building wherein the work is performed shall be as directed by The Customer.

11. CONTINUITY OF SERVICES

a. Take no action that will interfere with, or interrupt, existing building services unless previous arrangements have been made with the owner's representative. Arrange the work to minimize shutdown time.

b. Should services be inadvertently interrupted, immediately furnish labor, including overtime, material, and equipment necessary for prompt restoration of interrupted service.

B. PART 2

1. MANUFACTURERS
Hubbell Premise Wiring and approved equals

2. FABRICATION
Fabricate custom-made equipment with careful consideration given to aesthetic, technical, and functional aspects of equipment and its installation.

3. SUITABILITY
Provide products that are suitable for intended use, including, but not limited to environmental, regulatory, and electrical.

4. VOICE/DATA TELECOMMUNICATIONS SERVICE BACKBONE CABLE
a. Solid copper, 24 AWG, twisted-pair backbone cable, in sizes as indicated on the drawings, with the following minimum specifications:

1) Characteristic impedance -- 100 ohms at 1 MHz.
2) Attenuation - 7.9 dB maximum per 1000 ft at 1 MHz.
3) Listed Type CMP

b. Singlemode 8.7 µm to 10 µm diameter tight-buffered optical fiber, with fiber counts as indicated on drawings, with the following minimum specifications:

1) Dual window, 1310 nm and 1550 nm.
2) Maximum attenuation, 1.0 dB/km at 1310, 1.0 dB/km at 1550 nm.
3) Listed type OFNP. Meets or exceeds EIA/TIA standards.

5. VOICE TELECOMMUNICATIONS STATION CABLE
Not used

6. DATA STATION CABLE
Four-pair 24 AWG, solid-copper station cable with the following minimum specifications:

1) Characteristic impedance -- 100 ohms plus/minus 15% at 10 MHz.
2) Attenuation - 20 dB maximum per 1000 ft at 10 MHz.
3) Worst pair near end crosstalk (NEXT) - 47 dB minimum at 10 MHz.
4) Listed type CMP and Classified Category 5e.

7. WORK AREA OUTLETS
Single gang mounting plate with modular face plate frames. (Hubbell IMF series Office White)

8. WALL VOICE OUTLETS
Single-gang stainless steel faceplate with six-conductor jack and wall telephone mounting lugs.

9. PATCH PANELS

a. 19 in. rack mountable, 48-port 8-pin modular to insulation displacement connector (IDC) meeting Category 5e performance standards, and pinned to ANSI/TIA/EIA 568B standards.

10. RACK MOUNTED OPTICAL FIBER TERMINATION PANEL
a. 19 in. rack mounted rack-mounted optical fiber termination panel with cable strain relief, grounding lugs, slack storage and 3-port duplex SC connector panels and blank panels installed

11. OPTICAL FIBER CONNECTORS
a. Ceramic tipped field installed SC connectors, meeting the following minimum requirements:

1) Meets ANSI/TIA/EIA 568-A specifications.
2) 0.2 dB typical insertion loss.

12. EQUIPMENT RACKS
The 19 in. equipment rack shall have the following minimum requirements of the Hubbell CS1976. See drawings for more detail.

13. SOUND ENFORCEMENT SYSTEM
Install Frontrow Pro infrared active learning system using distrusted ceiling speaker (system provided by The Customer) . The Vendor is to provide the 18 gage plenum speaker cable home runs to each speaker and RCA extension to base station. The Vendor is to install RCA extension and cables to ceiling sensor. See drawings for more detail.

14. PROJECTOR SYSTEMS
Ceiling mount projector systems to include ceiling mount and hardware one VGA, one Yellow RCA and extended to teacher station (projector provided by The Customer).

15. EXTEND 4" CONDUIT TO HIGH SCHOOL
Extend 4" PVC conduit to High School tunnel install quantity three 1 inch inner ducts inside conduit. The Vendor is responsible for all surface restoration.

C. PART 3 EXECUTION

1. PRE-INSTALLATION SITE SURVEY
a. Prior to start of systems installation, meet at the project site with the owner's representative and representatives of trades performing related work to coordinate efforts. Review areas of potential interference and resolve conflicts before proceeding with the work.

b. Examine areas and conditions under which the system is to be installed. Do not proceed with the work until satisfactory conditions have been achieved.

2. HANDLING AND PROTECTION OF EQUIPMENT AND MATERIALS
a. Be responsible for safekeeping of your own and your subcontractors' property, such as equipment and materials, on the job site. The owner assumes no responsibility for protection of above named property against fire, theft, and environmental conditions.

3. PROTECTION OF OWNER'S FACILITIES
a. Effectively protect the owner's facilities, equipment, and materials from dust, dirt, and damage during construction.

b. Remove protection at completion of the work.

c. Daily all trash and rubbish shall be removed form job site. The Vendor shall not utilize the The Customers dumpsters without The Customers consent.

4. INSTALLATION
a. Receive, check, unload, handle, store, and adequately protect equipment and materials to be installed as part of the contract. Store in areas as directed by the owner's representative. Include

delivery, unloading, setting in place, fastening to walls, floors, ceilings, or other structures where required, interconnecting wiring of system components, equipment alignment and adjustment, and other related work whether or not expressly defined herein.

b. Install materials and equipment in accordance with applicable standards, codes, requirements, and recommendations of national, state, and local authorities having jurisdiction, and National Electrical Code® (NEC) and with manufacturer's printed instructions.

c. Adhere to manufacturer's published specifications for pulling tension, minimum bend radii, and sidewall pressure when installing cables.

d. Install station cabling to the nearest communications closet, unless otherwise noted.

e. Installation shall conform to the following basic guidelines:

1) Use of approved wire, cable, and wiring devices.
2) Neat and uncluttered wire termination.

f. Attach cables to permanent structure with suitable attachments at intervals of 48 to 60 inches. Support cables installed above removable ceilings.

g. Install adequate support structures for 10 foot cable service loops at each wiring closet.

h. Install cables in one continuous piece. Splices shall not be allowed except as indicated on the drawings or noted below:

5. GROUNDING

a. Grounding shall conform to ANSI/TIA/EIA 607 - Commercial Building Grounding and Bonding Requirements for Telecommunications, National Electrical Code® and manufacturer's grounding requirements as minimum.

b. Ground equipment racks, housings, messenger cables, and raceways.

c. Connect cabinets, racks, and frames to single-point ground which is connected to building ground system via #6 AWG green insulated copper grounding conductor.

6. LABELING

Labeling shall conform to ANSI/TIA/EIA-606 standards. In addition, provide the following:

a. Label each outlet with permanent label with minimum 3/16 in. high characters.

b. Label each cable with permanent self-adhesive label with minimum, 1/8 in. high characters, in the following locations:

1) Inside receptacle box at the work area.
2) Behind the communication closet patch panel or punch block.

c. Use labels on face of data patch panels. Provide facility assignment records in a protective cover at each telecommunications closet location that is specific to the facilities terminated

therein.

d. Use color-coded labels for each termination field that conforms to ANSI/TIA/EIA-606 standard color codes for termination blocks.

e. Mount termination blocks on color-coded backboards.

f. Labels shall be machine-printed. Hand-lettered labels shall not be acceptable.

g. Three (3) sets of as-built drawing shall be delivered to the owner before acceptance of project by the owner

7. TESTING

a. Testing shall conform to TIA/EIA TSB-67 Transmission Performance Specifications for Field Testing of Unshielded Twisted Cabling Systems and ANSI/TIA/EIA-568-A-1, Propagation Delay and Delay Skew Specification for 100 ohm 4-pair cable. Testing shall be accomplished using level IIe or III field testers.

b. Test each pair and shield of each cable for opens, shorts, grounds, and pair reversal. Correct grounded and reversed pairs.

1) Perform testing of copper cables with tester meeting TIA/EIA TSB-67 and ANSI/TIA/EIA-568-A-1 requirements.
2) If copper backbone cable contains more than one (1) percent bad pairs, remove and replace entire cable.
3) If horizontal cable contains bad conductors or shield, remove and replace cable.

c. Measurement the of Optical Power Loss of Installed Singlemode Fiber Cable Plant. Measured results shall be plus/minus 1 dB of submitted loss budget calculations. If loss figures are outside this range, test cable with optical time domain reflectometer to determine cause of variation.

1) Cables shall be tested at 850 nm and 1300 nm for multimode optical fiber cables. Cables shall be tested at 1310 nm and 1550 nm for singlemode optical fibers.
2) Testing procedures shall utilize "Method B" - One jumper reference.
3) Bidirectional testing of optical fibers is required.

d. Perform testing on each fiber optic conductor. Measured results shall be plus/minus 1 dB of submitted loss budget calculations.

1) Submit printout for each cable and fiber tested.
2) Submit CD media with test results and program to view results.

e. Where any portion of system does not meet the specifications, correct deviation and repeat applicable testing at no additional cost to the owner.

8. FIELD QUALITY CONTROL

a. Employ job superintendent or project manager during the course of the installation to provide coordination of work of this specification and of other trades, and provide technical information when requested by other trades. It is highly recommended that the person should maintain current RCDD® (Registered Communications Distribution Designer) registration and shall be responsible for quality control during installation, equipment set-up, and testing.

d. Installation personnel shall meet manufacturer's training and education requirements for

implementation of extended warranty program.

Request for Quotation

Response Form

Caro Community Schools

Middle School Addition and Renovations
301 North Hooper, Caro MI 48723

Vendor Name: _____

Vendor Contact Name: _____

Address: _____

Phone / Fax: _____

E-Mail: _____

Must be submitted in a sealed envelope on or before 10/18/06 at 10:00 am EST to:
Bill Pouliot
Caro Community Schools
301 North Hooper
Caro MI 48723

Base Bid for the Lump Sum of ----------($_____)

_____ Dollars

Add for the Cost of Performance Bond ---------- ADD—($_____)

Labor rate per hour for additions and/or deletions to the contract that could not have been anticipated at the release of the RFQ:

Straight Time _____, Time and Half _____, Double Time _____

Voluntary Alternatives will be accepted in addition to the Base Bid.

The bidder, familiar with all conditions to be encountered affecting the cost of the work and with the bidding documents, does hereby propose to perform all work required and furnish all of the labor, materials, tools, equipment and services necessary to complete the work required in connection with the bid documents.

Signed by _____ Printed Name _____

Bidders Check List

- *Response Form*
- *Response Security*
- *Itemized Materials List to include Manufacture, Part Number, Description, Quantity and Price*
- *References*
- *Exceptions to Bid Documents, listed on company letterhead*

3 copies enclosed in a sealed envelope and addressed:

Bill Pouliot
Caro Community Schools
301 North Hooper
Caro MI 48723