

Grosse Pointe Public School System

DWDM Network Electronics

Request for Proposals (RFP)

July 2020

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GENERAL TERMS AND CONDITIONS

1 GENERAL REQUIREMENTS

1.1 INTENT

It is the intent of Grosse Pointe Public School System (herein after referred to as the “District”) to solicit proposals from qualified vendors for a DWDM Network Electronics solution to light the District’s fiber-optic ring. This solution will consist of the following components:

- A. Equipment
- B. Integration services
- C. Warranty services

It is desired that vendors propose on all of the services being requested in this RFP. Vendors may partner with another provider to supply a complete and turnkey solution. If your response contains proposed services or equipment from multiple providers, all responding parties must be clearly identified, and a synopsis of the partner relationship as well as the party that will serve as the prime vendor/contact for the District must be detailed. The District reserves the right to proceed with the provider deemed most suitable.

1.2 PROJECT DESCRIPTION

The District is seeking to procure and implement a DWDM solution to facilitate site-to-site connectivity between District facilities over a District-owned fiber ring.

This RFP outlines the performance, operational, and administrative requirements the District is seeking for the DWDM Network Electronics. Detailed specifications for this project are included in **Section 2** of the RFP.

1.3 SCHEDULE OF EVENTS

EVENT	DATE
RFP issued	July 29, 2020
Vendors’ conference (non-mandatory)	August 4, 2020 @ 10am ET Phone one-tap: +16468769923,,95013629119# or +13017158592,,95013629119# Meeting URL: https://plantemoran.zoom.us/j/95013629119?pwd=d3I1RXJl4eFpydFI1MG00MGVmZW85UT09 Meeting ID: 950 1362 9119 Passcode: 289616

Deadline for submittals of questions related to this RFP	August 5, 2020 @ 12pm ET
Deadline for proposals & public proposal opening	<p>August 19, 2020 @ 12pm ET</p> <p>Phone one-tap: +13126266799,,97134062417#</p> <p>or</p> <p>+16468769923,,97134062417#</p> <p>Meeting URL: https://plantemoran.zoom.us/j/97134062417?pwd=TW4zV3hGQmlkZkxGb3Z3dDk0dUppQT09</p> <p>Meeting ID: 971 3406 2417 Passcode: 324032</p>
Anticipated award date	September 2020
Implementation schedule	October 2020–December 2020

1.4 PROPOSAL SUBMISSION

Late proposals will not be accepted. Proposals shall be submitted as follows by the deadline indicated in **Section 1.3, Schedule of Events:**

- A digital file upload consisting of the following documents:
 - One **single PDF** file of the submitted printed signed complete proposal
 - **Appendix A** in Excel format

The electronic submission should be submitted using the following process:

1. Go the secure file exchange website: <http://plantemoran.leapfile.com/>
2. Select Secure Upload
3. Send files to Alex.Dietrich@plantemoran.com. Click Start.
4. Fill in the form on the following page. Make sure the Subject Line contains “GPPSS – DWDM Network Electronics RFP – <<Fill in vendor name>>”
5. Click on “Select Files to Send”
6. Add files to be sent and select “Upload and Send”

If a bid bond or cashier’s check is used, an **electronic copy** should be provided in your electronic response. An **original copy** of the bid bond must be submitted via mail to the District. The original can be sent to the following address:

Grosse Pointe Public School System

Attn: Chris Stanley
389 St. Clair
Grosse Pointe, MI 48230

All Proposals MUST include the Vendor Response Forms provided in Appendix A.

Proposals shall be accompanied by a sworn and notarized statement disclosing any familial relationship that exists between the Vendor or any employee of the Vendor and any member of the Board of Education or superintendent. The District shall not accept a proposal that does not include this sworn and notarized disclosure statement. The Non-Familial Form must accompany your bid proposal (see **Appendix A**).

In accordance with the Iran Economic Sanctions Act, Michigan Public Act No. 517 of 2012, all vendors must execute the “Iran Linked Business Affidavit” and include it in their proposals (see **Appendix A**). Said forms are included in the Vendor Response Forms. The District will not accept a proposal that does not include this sworn and notarized disclosure statement. The form must accompany your bid proposal (see **Appendix A**).

1.5 INTENT TO PROPOSE

Each vendor that intends to submit a proposal in response to this RFP should communicate its intent via email to gina.mancinelli@plantemoran.com with the subject line “[*Insert your vendor name*] – GPPSS - DWDM Network Electronics RFP - Intent to Propose.” Please refer to **Section 1.7, RFP Clarifications and Addenda**, for the contact information to address specific questions related to this RFP.

The response shall include the name of the Vendor, the name of the contact person, and that person’s email address.

1.6 VENDORS’ CONFERENCE

A pre-proposal vendors’ conference will be held for this project. Refer to **Section 1.3, Schedule of Events**, for details of this conference.

1.7 RFP CLARIFICATIONS & ADDENDA

Please note that any addenda will be posted by the District to the bid site that housed the original RFP. Vendors are responsible for checking the site regularly to make themselves aware of any new addenda. When making requests for clarification, please identify the relevant section number (e.g., Section 2.3.1).

Requests for clarification shall be submitted by email only to:

Alex Dietrich
Alex.dietrich@plantemoran.com

1.8 PROPOSAL FORMAT

To facilitate the comparison of vendor proposals, it is required that each proposal be organized into the following sections:

1.8.1 Executive Summary

The executive summary should, at a minimum, include the following:

- A. Executive letter highlighting how the proposed solution achieves the objectives of the District: This letter is to be signed by an officer of the organization submitting the proposal
- B. Organizational overview: A brief overview of the organization
- C. Provide features of the proposed solution to identify:
 1. How the solution aligns with the requested functional requirements
 2. How the solution aligns with the requested technical requirements
 3. Any functional or technical requirements that the proposed solution cannot achieve
 4. How the solution can scale to add additional locations or increase capacities
 5. Any assumptions and/or District resources required to complete the solution

1.8.2 Vendor Response Forms

Vendor Response Forms are supplied in this RFP (**Appendix A**). In addition to requesting information on your company and the proposed solution, along with other required forms, you must clearly indicate whether you either comply or take exception to any of the sections in this RFP. All vendors **MUST** submit the **Comply/Exception Form** from **Appendix A**. Where applicable, an explanation to the exception must be provided.

1.8.3 Diagram of Design

For each section or design presented, the Vendor shall submit a diagram of its design providing a pictorial representation of the proposed solution(s).

1.8.4 Project Plan

The Vendor will include an overview of its project plan in its response.

1.8.5 Project Team

Indicate the level of qualification of the staff who will be assigned to this project. Qualification will be based on certifications and years of experience with the materials proposal in similar configurations. Names of staff need not be provided; however, the response in this section will indicate the minimum level of experience that will be provided. If necessary, please include additional categories to address additional levels of staff or staff with different certifications and years of experience.

1.8.6 Product Information

The Vendor must include copies of the technical specifications and/or data sheets for each of the products being proposed.

1.8.7 Electronic Copy

An electronic format of the forms in **Appendix A** in a Microsoft Excel format **MUST** be included with your response. A PDF version of all other materials must also be included.

1.8.8 Equipment Listing (BOM)

A bill of material must be included with the bid response identifying equipment models and quantities.

1.8.9 Additional Information

Additional information may be provided at the Vendor's discretion.

1.9 BID BONDS

Every bid shall be accompanied by either a cashier's check on a solvent bank or by a bond executed by a surety company authorized to do business in the state of Michigan. A 5% bid bond or cashier's check shall be required. Such check or bond shall name the District as recipient. The amount of such bid bond or cashier's check shall be forfeited as liquidated damages, costs, and expenses incurred by the District if the Vendor, after given an award as successful vendor, shall fail within thirty (30) days after the notice of such award to enter into appropriate contract with the District.

1.10 PERFORMANCE AND PAYMENT BONDS

The District MAY require the selected vendor(s) to provide a performance bond upon award of the contract. The associated cost of the performance bond is to be shown as a separate line item — do NOT include this cost in your base bid. This bond shall be equal in amount to the total price to the District of purchased hardware, software, cabling, and services. The surety of the bond shall remain in effect for one (1) year after all acceptance of the entire project has been executed by the District. In the event that the Vendor(s) fails to perform its obligations under any agreement between the Vendor(s) and the District, the bond shall be paid to the District. The Vendor(s) further agrees to save and hold harmless the District and agents from all liability and damages of every description in connection with any subsequent agreements. Payment bonds shall be required under the following conditions: project award exceeds \$50,000 **and** project involves construction, alteration, or repair to the buildings.

1.11 INSPECTION OF WORKSITE

We do not believe on-site access and review will be required prior to the project and, therefore, requests may be denied.

1.12 MODIFICATION OF RFP

Vendors may not modify the RFP text to affect the terms, conditions, or specifications found in this document; this is forbidden and will subject the bid response to rejection. In the event any text is modified, the original text as issued will apply. This clause does not apply to the vendor response areas of the RFP where it is expected that vendors will enter their text.

1.13 CONFIDENTIAL INFORMATION

As a public entity, the District is subject to the Michigan Freedom of Information Act (FOIA). Information contained in proposals may be subject to FOIA requests.

1.14 RIGHT TO REQUEST ADDITIONAL INFORMATION

The District reserves the right to request any additional information that might be deemed necessary after the completion of this document.

1.15 RIGHT OF REFUSAL

The District reserves the right to reject any or all proposals in their entirety, evaluate suggestions or exceptions, waive irregularities, or select certain equipment from various vendor proposals, based on the best interests of the District. The District reserves the right to reject any or all proposals for a specific section. The District reserves the right to award specific buildings to one or more vendors.

1.16 PROPOSAL PREPARATION COSTS

The Vendor is responsible for any and all costs incurred by the Vendor or its subcontractors in responding to this RFP.

1.17 SYSTEM DESIGN COSTS

The successful vendor shall be responsible for all design, information gathering, and required programming to achieve a successful implementation. This cost must be included in the base bid.

1.18 PERMITS

The successful vendor shall be responsible for complying with all local, state, and federal codes applicable to this installation. This includes the electrical permit required by the state of Michigan for low voltage installations. Include all costs associated with permitting in your base bid.

1.19 PRICING ELIGIBILITY PERIOD

All vendor proposal bids are required to be offered for a term not less than **120** calendar days in duration. A claim of mistake in computation of a proposal shall not void the proposals after they are opened and accepted.

1.20 ADDITIONAL CHARGES

No additional charges, other than those listed on the price breakdown sheets, shall be made. Prices quoted will include verification and coordination of order, all costs for shipping, delivery to all sites, unpacking, setup, installation, operation, testing, cleanup, and training.

1.21 TURNKEY SOLUTION

All prices quoted must include all the cables, connectors, etc., that will be necessary to make the system specified **fully operational** for the intent, function, and purposes stated herein.

1.22 FEDERAL OR STATE SALES, EXCISE, OR USE TAXES

Grosse Pointe Public School System is a tax-exempt entity for all purposes, except if the project makes enhancements and/or additions to real property.

1.23 PURCHASE QUANTITIES

The District reserves the right to adjust upward or downward by 25%, the quantities of items purchased without altering the unit purchase price upon award and throughout the contract period.

1.24 AGREEMENT REQUIREMENTS

The District intends to use the agreement contained in **Appendix C** for this project. Please review this attached agreement and indicate whether the terms of the agreement are acceptable. Include all contract exceptions in your proposal, if any.

The District considers this RFP legally binding and will require that this RFP and the resulting vendor proposal be included as addenda to any subsequent agreements between the Vendor(s) and the District. It should be understood by the Vendor(s) that this means that the District expects the Vendor(s) to satisfy all requirements and reports listed herein. Exceptions should be explicitly noted in the vendor proposals. **Lack of listing all exceptions will be considered acceptance of all of the specifications as presented in this RFP.**

1.25 SURVIVAL CLAUSE

All duties and responsibilities of any party that, either expressly or by their nature, extend into the future, shall extend beyond and survive the end of the contract term or cancellation of the Agreement.

1.26 FORCE MAJEURE CLAUSE

See proposed Agreement in **Appendix C**.

1.27 INCORPORATION BY REFERENCE

The Vendor shall supply equipment, wiring, technology, training, and other related services adequate to accomplish the requirements as set forth in the RFP and the Vendor response to the RFP. Parties agree that where there is a conflict between terms of the Agreement and the information presented in the referenced documents, the Agreement shall take precedence. The parties also agree that where there is not a conflict between the Agreement and the information presented in the referenced documents, all terms, conditions, and offers presented in the Vendor's proposal shall herein be referenced to the Agreement and shall be binding upon all parties to the Agreement.

1.28 RISK DURING EQUIPMENT STORAGE AND INSTALLATION

Delivery shall be made in accordance with the implementation schedule referenced as part of the Agreement. It will be possible to allow for minor variances from this implementation schedule as mutually agreed upon by both parties and confirmed by prior written notice. The equipment shall be installed and placed into good working order by representatives of the Vendor. During the time period where the equipment is in transit and until the equipment is fully installed in good working order, the Vendor and its insurer shall be responsible for the equipment and relieve the District of responsibility for all risk of loss or damage to the equipment. In addition, the Vendor shall hold the District and agents harmless from any risk of loss or damage arising out of occurrences during the installation of the equipment.

1.29 SHIPPING OF EQUIPMENT

All shipping and insurance costs to and from the site shall be included in the Vendor's proposal. All payments to shipping agents and for insurance fees shall be made directly by the Vendor. The District shall make no payments to any firm concerning the shipment, installation, and delivery of equipment that is not a part of the Agreement and for which exact payments are not described. The Vendor shall be responsible for all arrangements for the shipment and receipt of equipment to the District's prepared site. The Vendor shall provide all properly trained representatives to unpack all items of equipment and place this equipment in the proper locations. The Vendor shall also be responsible for removal of all debris and packing materials from the site resulting from the installation of the equipment.

1.30 NON-WAIVER OF AGREEMENT RIGHTS

It is the option of any party to the Agreement to grant extensions or provide flexibilities to the other party in meeting scheduled tasks or responsibilities defined in the Agreement. Under no circumstances, however, shall any parties to the Agreement forfeit or cancel any right presented in the Agreement by delaying or failing to exercise the right or by not immediately and promptly notifying the other party in the event of a default. In the event that a party to the Agreement waives a right, this does not indicate a waiver of the ability of the party to, at a subsequent time, enforce the right. The payment of funds to the Vendor by the District should in no way be interpreted as acceptance of the system or the waiver of performance requirements.

1.31 GENERAL INDEMNIFICATION

See proposed Agreement in **Appendix C**.

1.32 PATENTS, COPYRIGHTS, AND PROPRIETARY RIGHTS

See proposed Agreement in **Appendix C**.

1.33 NONDISCRIMINATION BY VENDORS OR AGENTS OF THE VENDOR

See proposed Agreement in **Appendix C**.

1.34 SUBCONTRACTORS

See proposed Agreement in **Appendix C**.

1.35 EFFECT OF REGULATION

See proposed Agreement in **Appendix C**.

1.36 PROJECT MANAGEMENT STAFF DESIGNATION

The Vendor understands that the successful installation, testing, and operation of the system that is the subject of this document shall be accomplished by a cooperative effort. To most effectively manage this process, the Vendor shall designate a single representative to act as project manager, who shall have the authority to act on behalf of the Vendor on all matters pertaining to the Agreement.

In the event that an employee of the Vendor is, in the opinion of the District, uncooperative, inept, incompetent, or otherwise unacceptable, the Vendor agrees to remove such person from responsibility in the project. In the event of such a removal, the Vendor shall, within fifteen (15) days, fill this representative vacancy as described above. Regardless of whom the Vendor has designated as the representative, the Vendor organization remains the ultimate responsible party for performing the tasks and responsibilities presented in the Agreement.

1.37 ASSIGNMENTS

The District and the Vendor each binds themselves, their partners, successors, and other legal representatives to all covenants, agreements, and obligations contained in the Agreement.

1.38 VENDOR AS INDEPENDENT VENDOR

It is expressly agreed that the Vendor is not an agent of the District but an independent contractor. The Vendor shall not pledge or attempt to pledge the credit of the District or in any other way attempt to bind the District.

1.39 INSURANCE

1.39.1 Workers' Compensation Coverage

The Vendor shall procure and maintain, during the life of the Agreement, Workers' Compensation Insurance, including Employer's Liability Coverage, in accordance with all applicable statutes of the state of Michigan.

1.39.2 Commercial General Liability Insurance

The Vendor, at the Vendor's sole cost and expense, shall procure and maintain, during the life of the Agreement, Commercial General Liability Insurance on an "Occurrence Basis" with limits of liability not less than one million dollars (\$1,000,000) per occurrence and/or aggregate combined single limit, Personal Injury, Bodily Injury, and Property Damage. Coverage shall include the following features: (A) Contractual Liability; (B) Products and Completed Operations; (C) Independent Vendors Coverage; (D) Broad Form General Liability Extensions or equivalent; (E) Deletion of all Explosion, Collapse, and Underground (XCU) Exclusions, if applicable; (F) Per contract aggregate.

1.39.3 Motor Vehicle Liability

The Vendor, at the Vendor's sole cost and expense, shall procure and maintain, during the life of the Agreement, Motor Vehicle Liability Insurance, including applicable No-fault coverages, with limits of liability of not less than \$1,000,000 per occurrence combined single limit Bodily Injury and Property Damage. Coverage shall include all owned vehicles and all hired vehicles.

1.39.4 Additional Insured

The following shall be named Additional Insureds: Grosse Pointe Public School System, including all elected and appointed officials; all employees and volunteers; and all boards, commissions; and/or authorities and their board members, employees, and volunteers.

This coverage shall be primary to the Additional Insureds and not contributing with any other insurance or similar protection available to the Additional Insureds, whether other available coverage is primary, contributing, or excess.

1.39.5 Notice of Cancellation or Change

Workers' Compensation Insurance, Commercial General Liability Insurance, and Motor Vehicle Liability Insurance, as described above, shall include an endorsement stating the following: "Sixty (60) days Advance Written Notice of Cancellation or Non-Renewal shall be sent to: Grosse Pointe Public School System., 389 St. Clair, Grosse Pointe, MI 48230 (313) 432-3000.

1.39.6 Proof of Insurance Coverage

The Vendor shall provide the District, at the time the Agreements are returned for execution, Certificates of Insurance, and/or policies, acceptable to the District, as listed below:

- A. Two (2) copies of Certificate of Insurance for Worker's Compensation Insurance;
- B. Two (2) copies of Certificate of Insurance for Commercial General Liability Insurance;
- C. Two (2) copies of Certificate of Insurance for Vehicle Liability Insurance;
- D. Original Policy, or binder pending issuance of policy, for Owners and Contractors Protective Liability Insurance;
- E. If so requested, certified copies of all policies shall be furnished.

1.39.7 Continuation of Coverage

If any of the above coverage expires during the term of the Agreement, the Vendor shall deliver renewal certificates and/or policies to Grosse Pointe Public School System at least ten (10) days prior to the expiration date.

1.39.8 Failure to Comply

Failure to comply with the insurance requirements contained in the Agreement shall constitute a material violation and breach of contract and may result in termination of the Agreement.

1.40 WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE

The District has presented detailed technical specifications of the particular purpose for which the network and technology is intended. The District has provided detailed descriptions and criteria of how the system can be defined to accomplish this particular purpose. The District has also defined the exact procedures and techniques to be employed in testing whether the system has achieved the defined performance of this particular purpose. Given this advanced preparation concerning, and documentation about, the District's particular purpose, the Vendor, at the time the Agreement is in force, has reason and opportunity to know (1) the particular purpose for which products are required, and (2) that the District is relying on the Vendor's experience and knowledge of these products to provide those that are most suitable and appropriate. Therefore, the Vendor warrants that the system is fit for the purposes for which it is intended as described in this document.

1.41 WARRANTY

See **Section 2**, for warranty requirements.

1.42 FINAL ACCEPTANCE OF THE SYSTEM

The system proposed shall be defined to be finally accepted by the District after all components of this RFP and all approved change orders have been installed completely, plus the items identified in **Section 2**. The District or the District's Representative shall be the sole judge of whether all conditions for final acceptance criteria have been met.

1.43 STANDARD FORMS AND CONTRACTS

Any forms and contracts the Vendor(s) proposes to include as part of any agreement resulting from this bid between the Vendor(s) and the District *must* be submitted as part of the proposal. Any forms and contracts not submitted as part of the bid and subsequently presented for inclusion may be rejected. This requirement includes, but is not limited to, the following types of forms: subvendor, franchise, warranty agreements, maintenance contracts, and support agreements.

1.44 NON-COLLUSION COVENANT

The Vendor hereby represents and agrees that it has in no way entered into any contingent fee arrangement with any firm or person concerning the obtaining of the Agreement. The Vendor certifies that its proposal is made without any previous understanding, agreement, or connection with any person, firm, or

corporation making a proposal for the same services and is, in all respects, fair, without outside control, collusion, fraud, or otherwise illegal action.

1.45 ADVERTISEMENT

The laws of the state of Michigan, the District purchasing policies, and the legal advertisement for vendors and purchases are made a part of any agreement entered into in the same respect as if specifically set forth in that agreement.

1.46 SELECTION CRITERION

The District intends to enter into a long-term relationship with a well-established vendor whose products, features, design philosophy, and support policies come closest to meeting the District's needs. The selected vendor must be a well-established, financially stable firm committed to technology in K-12; will have a commitment to attracting and retaining an excellent staff of technical and product support personnel; and will have a proven track record of support from installation planning through implementation and ongoing use. There should also be evidence of responsiveness to clients' suggestions for improvements. Finally, there must be a good fit between Vendor's staff and the District's staff to assure a good working relationship.

The vendors will be evaluated based on the following selection criteria:

1.46.1 Compliance to Specifications

- A. Functional and technical requirements
 - 1. Compliance to mandatory specifications
 - 2. Ability to achieve nonmandatory requirements
 - 3. Vendor interview and solution demonstration as required
- B. Proposal requirements
 - 1. Implementation support
 - 2. Ongoing support
 - 3. Experience
 - 4. Cost

1.47 SPECIAL NOTES

Failure to include in the proposal all information outlined above may be cause for rejection of the proposal.

The District reserves the right to accept the Vendor's replacement of any component if it is considered equal or superior to the specifications. Such acceptance will be in writing.

1.48 PAYMENT TERMS

See proposed Agreement in **Appendix C**.

1.49 CRIMINAL BACKGROUND SCREENING

The District is committed to assuring a safe environment for students, employees, and district visitors. Accordingly, the District requires criminal background certification compliance from vendors and subvendors who perform work at any district facility. Each vendor or subvendor shall certify that all legally required criminal history and criminal record checks, electronic finger print scans (Michigan and FBI), and/or any other background check requirements are conducted in accordance with applicable provisions within Sections 380.1230, 380.1230a-h, 380.1236a of the Michigan Revised School Code, and all other applicable federal and state laws concerning background checks. These results must be sent directly to the District. Additionally, the Vendor must certify that no owner, employee, agent, representative, vendor, and/or other personnel of the Vendor will be on any district premises if they are a registered criminal sexual offender under the Sex Offenders Registration Act, Public Act 295 of 1994, or have been convicted of a "Listed Offense" as defined under Section 722 of the Sex Offenders Registration Act, MCL 28.722. The Vendor shall also require employees, if and as applicable, to comply with the reporting requirements of Section 1230d of the Revised School Code and shall promptly forward any information so obtained to the District.

PROJECT REQUIREMENTS AND SPECIFICATIONS

2 DWDM NETWORK SPECIFICATIONS

2.1 PROJECT SCOPE AND OVERVIEW

The purposed of this RFP is to acquire the services of an experienced and qualified vendor to design, provide, install, and warranty a DWDM network solution for the District's wide area network, including testing and documenting the equipment provided.

Detailed specifications/requirements for the solution are provided later in this section.

It is District's intent that this RFP promote competition. Accordingly, the use of any patent, proprietary name, or manufacturer's name is for demonstrative purposes only and is not intended to curtail competition. Whenever any supplies, material, devices, or products requested in this RFP are specified by patent, proprietary name, or the name of the manufacturer, unless stated differently, such specification shall be considered as if followed by the words "or comparable equivalent," whether or not such words appear. The District, in its sole and absolute discretion, shall have the right to determine if the proposed equivalent devices/brands submitted by the Vendor meet the specifications contained in this RFP and possess equivalent and/or better qualities. It is the Vendor's responsibility to notify the District in writing if any specifications or suggested comparable equivalent devices/brands require clarification by the District on or before the deadline for written requests for clarifications.

The total base bid must include all associated costs, including, but not limited to, shipping, handling, insurance, installation, equipment, cabling, and services costs.

2.2 CURRENT ENVIRONMENT

The District maintains site-to-site connectivity through Comcast Metro Ethernet connections for all facilities. The District intends to replace this existing connectivity with connections provided over privately-owned District fiber. Everstream, the fiber build vendor, is actively deploying the physical fiber throughout the District, with a tentative completion date of October 2020. The fiber connecting all sites will be deployed as a physical ring with a head-end termination point at Parcels Middle School. In addition to the ring, there will be direct connections from the District to Wayne State University (WSU).

The District operates an Aruba network switching environment at all locations. The Data Center, located at Parcels Middle School, maintains redundant core network switches with 48 10Gbps-capable ports on each core switch. All other remaining locations have multiple 10Gbps uplink interfaces across multiple stacked network switches. Layer-3 connectivity is maintained between all locations via OSPF.

2.3 GENERAL EXPECTATIONS

2.3.1 Acceptable Manufacturers

The District is seeking products from reputable DWDM network manufacturers (e.g., Adva, Cisco, Ekinops, Juniper, Ciena).

The acceptance of a solution will be at the discretion of the District. There is a strong preference for solutions that have been proven to be both functional and cost effective in a K-12 education environment.

2.3.2 New Materials

All equipment quoted by the Vendor shall be new. The solution requests that the Vendors propose a completely new solution that balances cost, performance, and technology. Solutions using equipment that has either reached or an announcement has been made for end-of-life, end-of-support, or end-of-sales will not be entertained.

All products proposed in the response must be in “customer shipping or production” status at the time of the proposal. The Vendor may not use products based on future releases of hardware and/or software in their proposal. If the Vendor is unable to provide the proposed product(s) or feature(s) by the proposed delivery date, the Vendor will provide a resolution of equal or greater value to the District, at no additional charge to the District, including services required to implement the solution.

2.3.3 Technical Staff/Trained Personnel

The Vendor shall indicate the level of qualification of the staff that will be assigned to this project. Qualification will be based on certifications, training, and years of experience with the materials proposed in similar configurations. Names of staff need not be provided; however, the response in this section will indicate the minimum level of experience that will be provided. If necessary, please include additional categories to address additional levels of staff or staff with different certifications and years of experience.

2.3.4 Specifications Sheets

The Vendor must provide specification sheets (soft copies) for all products proposed. An electronic copy of these specification sheets will suffice.

2.3.5 Mandatory and Nonmandatory Requirements

Unless specifically stated otherwise, using terms such as “optional,” “desired,” or “nonmandatory,” the requirements in this section are to be considered mandatory requirements.

2.3.6 Asset Tags

The vendor will be expected to asset tag all network equipment. The asset tagged items will include the assigned number in the final documentation that is delivered to the District. The District will provide asset tags for the vendor to apply.

2.3.7 Additional Components for Completeness of Solution

If the proposed solution requires any additional components from the District to meet the functional requirements of the solution not included in the proposal, the Vendor must:

- a. Identify optimal requirements and their purpose

- b. Identify the estimated cost to the District for these components
- c. Specify exceptions to any of the requirements using the form in **Appendix A: Comply/Exception Form**

Failure to disclose additional components and estimated costs that are required to deliver the described functionality but not included as a part of your proposal will be grounds for disqualification of your proposal, or the Vendor will be responsible for providing the missing components at no additional cost to the District.

2.3.8 Options Pricing

Vendors are encouraged to provide pricing for alternate equipment to allow the District flexibility in identifying the solution that addresses their current and future needs. Pricing for options must be specified in **Appendix A**.

2.4 TECHNICAL REQUIREMENTS

2.4.1 Scope of Work

It is the intent of the District to establish redundant 10Gbps connectivity between the District's data center and each building over a fiber-optic ring topology using dense wave division multiplexing (DWDM) technology. The DWDM network will provide centralized monitoring and management of all network components. The solution will be easily scalable to address the addition of new network nodes, or expansion of capacity to meet growing demand. This scope of work is inclusive of procurement, installation, configuration, and testing of new components to ensure proper operation.

2.4.2 Topology

There is a total of 14 sites that are part of the District's new fiber ring. The ring consists of 60 total strands, with 24 or 48 strands on each lateral. Parcels consists of 60 strands on each of its two separate entry points. A total of 6 strands will be spliced for each node in the ring. An illustration of the ring is provided in **Appendix B**. All fiber provided will G.652.D and G.657.A1 compliant.

The topology requested is an East and West ring with a minimum of two 10Gbps redundant connections from Parcels Middle School. Parcels will serve as the origination point for both East and West rings. The District expects to operate 10-gigabit Ethernet traffic on each connection using traditional Layer-2 and Layer-3 networking standards.

2.4.2.1 Network Head-End

The network head-end, located at Parcels Middle School, will serve as the primary origination point. The DWDM network must be capable of providing a minimum of 80-channels (50GHz channel spacing, ITU grid) operating in each direction around the ring. All connections to/from each building will terminate into District-provided network electronics.

2.4.2.2 Sites

Each site, outside of Parcels, must have a minimum of a 4-Ch (East and West) fixed optical add-drop multiplexer. All connections from the vendor-provided DWDM equipment will terminate into District-provided network electronics.

2.4.3 Equipment Chassis

Equipment provided should be in a modular format, such that modules can be swapped out to accommodate new interfaces or modules for additional functionality or expansion. Additionally, service modules, power supplies and fan modules should be hot-swappable, such that removal and addition of modules does not require a complete system shutdown.

The equipment should fit and rack-mount into a standard 19" or 23" wide equipment rack.

2.4.4 Power Supply Redundancy

Devices should be configured for N+1 power supply redundancy. In the event of a malfunction of one of the power supplies, the remaining power supply shall assume responsibility for the entire device.

2.4.5 Scalability

The proposed solution should be scalable to accommodate network growth. The vendor should indicate the scalability of the proposed platform including the various upgrade options available for components such as new interface types or control modules.

2.4.6 Network Management & Monitoring

The proposed solution must provide a web-based (HTTP/HTTPS) single-pane of glass management and monitoring system that provides visibility into the status and configuration of all nodes on the network. The tool should also provide the ability to remotely configure any device on the network. In addition, the equipment should support the following protocols for management and monitoring:

- NTP
- SSH
- HTTP/HTTPS
- SNMPv2, v3
- Syslog
- SFTP
- FTP
- Telnet

2.4.7 Authentication, Authorization, and Accounting (AAA)

The proposed solution must support both TACACS+ and RADIUS for AAA for both individual device and management console login.

2.4.8 Remote Management

The solution must provide an adequate means to maintain remote management to all sites. In the design of the proposed solution, vendors should indicate how they intend to retain remote management capability for equipment at all sites.

2.4.9 Optical Add/Drop Multiplexers

Fixed optical add/drop multiplexers (OADM) must be provided at each site, with a minimum of 4-channels in an east and west configuration. All OADMs must support operation in standard temperature ranges (23°F - 122°F).

2.4.10 Transponders

Transponders must support DWDM compliance according to ITU-G.709. Transponder must operate at a minimum of 10Gbps. Transponders must support either LR or SR 10-gigabit ethernet client-side optics.

In your response, please indicate if the transponder supports Forward Error Correction according to ITU-T G.975 and ITU-T G.975.1 I.7.

2.4.11 Optics

All optics provided must be fully compatible with the proposed DWDM system. Optics must be provided to facilitate the operation of the line-side. Client-side optic pricing will be request as an optional item. Optics required for the District-provided switch end will be provided by others.

Transponder optics must be tunable to all C-band channels. Fixed channel optic pricing may be provided as an optional item.

The provided optics must be compatible with the provided equipment without negatively affecting any factory warranty. If third-party optics are used, it must not void the manufacturer warranty.

2.4.1 Client-Side

The handoff at all locations to District-provided network equipment must be SFP+-compatible operating over single-mode fiber. In the proposed solution diagram, the vendor should visually show the number of connections required at the client-side handoff for each site.

2.4.2 Amplification

The vendor is responsible for providing amplification where needed to maintain optimal operating conditions. The vendor will indicate the quantity of amplifiers necessary, and recommended placement of said amplifiers.

2.4.3 Ethernet

The solution must be able to support transparent transmission of Ethernet frames across the DWDM network.

2.4.4 Alien Wavelengths

Vendors should highlight their ability to support alien wavelengths, initiated by others outside of the District's network, including what functions are available to monitor those wavelengths.

2.4.5 Site Failure

Vendors should detail how the network will operate in the event of various types of site failures. Please indicate how the network can remain functional at other sites, including how restoration would occur once a site is back online. Scenarios should include the following:

- Single site failure (e.g., loss of power, disaster)
- Multiple site failure (non-adjacent sites)
- Multiple site failure (adjacent sites)

2.4.6 Safety and Compliance

The proposed solution must be compliant with relevant CE, FCC, RoHS, and REACH standards. Additionally, equipment should have safety mechanisms to reduce laser power if there is a detected fiber cut or disconnections.

2.4.7 Architecture Options

The items below are architectural options that the District would like to request pricing for. These items should consider the cost to adopt the requested functionality throughout the whole architecture as opposed to single unit pricing. Pricing should be provided in the **Optional Items** pricing form located in **Appendix A**.

2.4.8 Power Management (optional)

As an option, vendors should provide pricing for monitoring and regulation optical power between sites without user intervention. The vendor should detail how power is managed throughout changes in the physical characteristics of the connections.

2.4.9 Reconfigurable OADMs (optional)

As an option, vendors should also provide costs for a colorless directionless reconfigurable add/drop multiplexer (CD ROADM). The ROADM should support a minimum of two-degrees and be capable of supporting all C-band channels that will be implemented in the new network.

The cost should reflect the additional cost to replace all fixed OADMs with ROADMs including any necessary amplification required to maintain optimal operating conditions. Pricing should be provided in the **Architecture Options** section of the **Optional Items** pricing form of **Appendix A**

2.4.10 Optical Protection (optional)

As an option, please provide pricing for 1+1 line-level optical protection (50ms) for all sites in both East and West paths. A minimum of two additional strands will be available for optical protection at all sites in the ring.

The cost should reflect the additional cost to add optical protection throughout all sites. Pricing should be provided in the **Architecture Options** section of the **Optional Items** pricing form of **Appendix A**.

2.4.11 Secondary Data Center (optional)

As an option, vendors should provide costs to incorporate South High School as a secondary data center location. All sites should have a minimum of one 10Gbps per connection to Grosse Pointe South High School in this proposed design. Include all necessary components including additional mux/demux units or amplification as necessary.

2.5 LICENSES

The Vendor shall provide any perpetual license costs for all components of the proposed base bid solution and voluntary alternates to ensure devices remain operational for the duration of the warranty period.

2.6 WARRANTY

The Vendor must provide **five (5) years warranty** on all hardware components required for the proposed base bid solution, as well as any voluntary alternate solutions. The District requires **8x5 4-hour response and Next Business Day remediation** on all hardware. All warranty start dates shall begin after formal acceptance of the solution.

In addition, the Vendor shall provide an annualized cost, for years six and seven, for warranty on all hardware components of the proposed base bid solution and proposed voluntary alternates.

2.7 IMPLEMENTATION

2.7.1 Implementation Timing

It is the intent of the District to start and complete the deployment of the equipment and integration services requested in the RFP during Fall of 2020.

2.7.2 Project Plan

The Vendor shall provide a full installation schedule showing the workflow using a graphical representation (e.g., Gantt chart or similar tool). The Vendor's installation schedule should indicate the size of each crew working in the building on a daily basis along with timelines for building project completion. All punch list items associated with this project must be complete by the noted completion date.

2.7.3 Work Hours

Any work scheduled inside buildings, or on the building premises, must be coordinated with the District. Arrangements must be made through the District for additional work hours, if needed. Any impacts to network connectivity will occur after normal operating hours to minimize the effect of an outage.

The installation schedule will be coordinated with the District upon award. The District will work with the Vendor and the District facilities team to provide appropriate access for each building. Please note that schedules are subject to change with short notice or no notice.

2.8 INSTALLATION/INTEGRATION SERVICES

The following are the integration services required for this RFP. For these services, the pricing for the base bid will be presented using the forms found in **Appendix A**.

2.8.1 Design and Planning

Prior to the actual network implementation, the Vendor will provide the District with a detailed design of the solution and timeline for implementation. This process should involve walkthroughs of all network closets, and meetings with the District and its representatives to establish implementation details, such as work schedule and timeline, and technical details, such as network configuration, rack layouts, etc. The Vendor will propose a detailed design for the District's approval before any implementation actions take place.

The Vendor will be responsible for design areas supporting the DWDM network, including, but not limited to:

- Device naming conventions
- Rack elevation design
- Cable dressing
- Wavelength/Channel design
- Security architecture
- Management system configuration
- Logging and reporting configuration
- Hardware and software implementation

The Vendor shall provide the services necessary to install and configure the proposed DWDM network solution in order to meet the District's requirements defined in this RFP and provide a fully functional system to the District. It is expected that proposed services will minimally include the following:

- Physical racking and cabling of any rack-mounted hardware as required (including removal and disposal of refuse)
- Mounting, cabling, and configuration of all equipment
- Performing baseline configuration of hardware and software, including installation of available firmware and software updates
- Configuration of optical channels, service modules, interface descriptions, and other elements as necessary
- Configuration and optimization of amplifiers
- Coordination with District's vendors to integrate components with the existing network infrastructure
- Configuration of management interfaces and role-based access controls

- Configuration of logging and reporting functionality

2.8.2 Cutover

Every effort must be made to eliminate or minimize any loss of service or to cause any disruption of service during the cutover process. The Vendor shall provide:

- d. On-site assistance during the day of each cutover
- e. Remote assistance the day after to assist any issues

2.8.3 Removal of Equipment

The Vendor is not expected to be responsible for removal of any existing network equipment.

2.8.4 Installation Assurances

The Vendor will describe the following:

- f. Describe the implementation team and their roles in ensuring a successful cutover
- g. Describe the resources that will be available at cutover to address unforeseen problems
- h. Describe any anticipated disruptions in service during the cutover period
- i. Responsibilities required of the District to help ensure a successful cutover

2.9 DOCUMENTATION

The Vendor shall compile and distribute electronically to District representatives one (1) complete set of documentation. The Vendor is required to submit electronic copies of all the documentation provided in an organized format. The electronic copy shall be organized and indexed and delivered via an approved file transfer mechanism or thumb drive media.

The Vendor will provide, upon project completion, the system design and configuration documents. This documentation will be delivered in the form of drawings, spreadsheets, text files, database, etc., that would represent the details of installed equipment.

It is our belief that a foundation of proper documentation is the key to the long-term supportability of the environment. The Vendor's documentation package shall include the information described below and will be provided to the District in both paper and electronic form. Standard format for the files is an appropriate application from the Microsoft Office suite and the Microsoft Visio application. To be included in a typical documentation package are:

- a. Rack elevation drawings
- j. Physical network diagrams
- k. Logical network diagrams
- l. Detailed inventory sheet
- m. Configuration file contents
- n. Data cabling test results (if applicable)
- o. Manufacturer system manuals
- p. Manufacturer's warranty for all system components
- q. Vendor's warranty for installation services

- r. Support plan summary

2.10 ACCEPTANCE/TESTING CRITERIA

Upon completion of work and prior to the final acceptance, the Vendor will submit to the District:

- a. All as-built drawings
- b. All configuration files
- c. All system manuals
- d. All warranty documentation
- e. All testing results

2.10.1 DWDM Network Testing

Upon substantial completion of the project, the installed solution will be subject to acceptance testing. This acceptance testing will document adherence to the functional and technical requirements outlined in this RFP. The following will be assessed as part of the acceptance testing process:

- s. Unit Testing: Individual hardware and software components will be tested upon installation for compliance with their basic functional specifications. Unit testing shall comprise, but is not limited to, the following test procedures:
 - a. Basic Power-On/Initialization Tests: Determine whether there is sufficient conformance to the relevant functional requirement for the component to operate on the network. This test may involve powering on the device or loading a software program. This test should detect severe component failures.
 - b. Basic Interconnection/Connectivity Tests: Determine whether there is basic communication between any given site and the data center. These tests are intended to verify that communications can be established between devices.
 - c. Capability Tests: Verify the existence of one or more capabilities of the component. Tests are performed on the individual components to determine the presence or absence of certain features and capabilities.
 - d. Failover/Redundancy: On equipment where failover/redundancy has been configured, such equipment shall be tested for automatic failover or path protection.
 - e. Hot Swap: Ability to hot-swap network components where applicable shall be demonstrated.
- t. The testing shall occur after all of the equipment is installed and configured.
- u. Demonstrate monitoring capability of optical power levels.
- v. The Vendor is to provide a reading of average optical power levels at all sites after installation and configuration has been completed. The results should be validated and confirmed to support the intended design of the system without compromises.

- w. The network signoff process shall not commence until network testing has been successfully conducted. The Vendor shall demonstrate the connectivity between each site and the data center and work with the District to verify operation of existing network components such as wireless access points, PCs, and VoIP phones. The results will be documented and included in the final documentation package.
- x. The District and/or the District's representative will observe the testing and will conduct quality assurance spot checks of the Vendor's work.

2.10.2 Project Closeout

- a. Upon notification the project is completed, an electronic copy of the punch list will be prepared and presented to the Vendor.
- b. To facilitate the closeout process, the Vendor will present to the District, in an electronic format, a complete list of all punch-list items resolved with the date and item(s) completed and resolution documented.
- c. Certificate indicating that any equipment that is disposed of is done so in accordance with Department of Environmental Quality standards.
- d. In accordance to the payment terms, the Vendor will submit final AIA Document G702 Application and Certificate for Payment.
- e. The District's representative will present signoff/closeout documents to the Vendor for signatures. A copy of the document will be given to the Vendor.
- f. Manufacturer's warranty for equipment will commence only upon closeout and will extend through the manufacturer-provided warranty period.
- g. The District reserves the right to inspect and approve or reject the installation before signoff. If the District rejects the workmanship or equipment functionally, the Vendor must repair or replace at their cost.

2.11 TRAINING – AT NO COST

The Vendor shall provide training for **four (4)** District IT staff, which will include, at a minimum, the operation, administration, and troubleshooting of the hardware and software proposed, this includes any alternates selected by the District. The complete training will be conducted as **one eight-hour session or two four-hour sessions**. The training sessions will be conducted within the District during normal working hours. The training will be scheduled by the District and shall be provided **at no cost** to the District. The training personnel will be certified to train on the manufacturer's product. Training will include operation of both hardware and software. Key training topics for each system include, but are not limited to:

- The configuration of systems as deployed
- The configuration of any management system as deployed
- Configuration of user and administration policies/access policies
- Day-to-day maintenance and operation of the system
- System software/firmware upgrades (minor)

It is the expectation of the District that “over-the-shoulder” training opportunities will exist during the Vendor’s implementation. Furthermore, it is expected that the Vendor will endorse and entertain this type of training so long as it does not impede or delay the implementation process.

2.12 OTHER COSTS

If any costs are associated with your proposed services that have not been identified in prior sections, they must be detailed in **Appendix A**. Any such charges will be clearly identified, and all nonrecurring and monthly costs provided.

APPENDICES (PROVIDED SEPARATELY)

Appendix A - Vendor Response Forms

Appendix B - Fiber WAN Ring Information

Appendix C - Sample Agreement