

North Branch Area Schools E-Rate 2023-24

**North Branch Area Schools
6655 Jefferson Street
North Branch, MI 48461**

The North Branch Area Schools Board of Education is accepting sealed proposals to provide Network Upgrade for North Branch Area Schools in accordance with the specifications, terms and conditions stated herein.

Proposers are to submit one (1) original and one (1) copy of the proposal to:

North Branch Area Schools
Attention: Jim Fish, Superintendent
6655 Jefferson Street
North Branch, MI 48461

The sealed envelope containing the Proposal must include the wording “Network Upgrade”, and be personally delivered, sent by mail or express carrier. No electronic submissions will be accepted.

Proposals will be accepted until April 5, 2023, at 1:00 pm at which time they will be publicly opened and read at the North Branch Area Schools Administration Building. The Board will not accept a proposal received after the date and time mentioned above.

The Board of Education reserves the right to accept or reject any and all proposals and alternates, in whole or in part, and to waive any informality therein. The winning bid will be taken for approval at the North Branch Board of Education meeting on April 10 2023. Proposals shall remain firm for a period of 60 days from the bid opening. The winning bidder will schedule a post bid site visit in collaboration with the Director of Technology that will take place in the Boardroom at North Branch Area Schools at 3:00 pm prior to April 17, 2023.

Including in this document are:

- 1) Instructions to bidders
- 2) General Notes
- 3) Project Specifications and Timelines
- 4) Iran Economic Act Affidavit
- 5) Familial Relationships

Any questions regarding the Network Upgrade specifications should be directed to the Director of Technology, Mark Brown at (810)-688-7999 or mbrown@nbbrncos.net.

Q&A deadline: 3/23/23

Q&A posting date: 3/27/23

The Board of Education reserves the right to reject any and/or all bids in whole or in part and to waive any informalities therein. The Board of Education reserves the right to accept that bid which in its opinion, is in the best interest of the Owner.

E-Rate Funding:

The project herein is contingent upon the approval of funding from the Universal Service Fund's Schools and Libraries Program, otherwise known as E-Rate. Even after award of contract(s) and/or Erate funding approval is obtained, the District may or may not proceed with the project, in whole or in part. Execution of the project, in whole or in part, is solely at the discretion of the District. The District expects Service Providers to make themselves thoroughly familiar with any rules and regulations regarding the Erate program. Goods and services quoted shall be clearly designated as "E-Rate Eligible". Non-eligible goods and services shall be clearly identified as 100% non-eligible or shall be "cost-allocated" to show the percentage of eligible costs.

Project Specifications and Timelines:

North Branch Area Schools (NBAS) is seeking to upgrade its existing network infrastructure, which includes but is not limited to relocating IDF locations, adding a IDF location, network cabling, uninterrupted power supplies (UPS). The proposed solution must meet or exceed the functionality and performance requirements outlined in this document and have the ability to replace the current solution at NBAS with adequate room for future growth.

Scope of This Request:

The scope of work includes all programming, procurements and installation, removal and disposal of existing equipment, documentation, testing and training. Bidders shall include all required equipment and accessories for a turn-key solution. The installer will work with the Technology Department at NBAS to determine what to do with the removal or disposal of existing equipment. NBAS reserves the right to purchase materials and installation services from different vendors. NBAS reserves the right to reduce the amount of materials and services related to the budget of the Network Upgrade project. Bidders will include a spreadsheet that breaks down the costs in the following categories: Model/make of each piece of equipment, price per unit of equipment, total for equipment, and total cost for labor.

The proposed solution must meet the following requirements:

Network Cabling:

1. Network cabling must be CAT6a plenum
3. Network drops will be labeled with MDF/IDF#, patch panel (A, B, C), port number
 - a. Example: MDF-A-01, IDF2-B-01.
4. The installer will pull cable from the nearest network closet to the data drop through existing raceway.
5. The installer will provide a faceplate and wire mold when needed at the data drop that will accommodate the location's number of data ports.
6. The installer will provide connection ports at the data drop using manufacturers recommended keystone jacks for each port from line 6 above.
7. When the cable is pulled to the projector, the installer will be responsible for connecting 1 data cable to the ethernet port on the projector.
8. Cable management will be neat, organized, and labeling will be at the drop location in each classroom/location and at the switch in the network closet.
9. The installer will include cable management techniques to keep network closet/switch room neat and organized.
10. At the conclusion of work at each building, please provide documentation of cabling work as follows:
 - a. A map of network drops to classrooms shall be provided, in digital form and paper copy, to North Branch Area Schools.
 - b. All warranty information
 - c. All test results and certification

Uninterrupted Power Supply (UPS):

1. 1 Rack mounted UPS per network closet
 - a. Should there be supply chain constraints with the delivery of UPS to NBAS, UPS installation during the school year will take place outside of school hours.
2. Network interface so the UPS can be managed remotely
3. Removable/replacement battery
4. The proposal will include what to expect from battery up-life/up-time when in use
5. Reference Model:
 - a. APC Smart-UPS, Line X, Line Interactive, 2000VA, Rack/tower convertible 2U, 100V-127V, 3x 5-15R+3x 5-20R+1x L5
 - b. Model: SMX2KR2UNCX145 (or equivalent), 2x SMX120RMBP2U (or equivalent)

Fiber Cabling:

The fiber must be capable of a minimum 10 Gbps connection speed. The Bid shall include all necessary patch cables and materials to complete the fiber cabling project. Any and all USF Erate "ineligible" products and/or services must be separately in the Bid.

North Branch Area Schools

E-Rate 2023-24

North Branch High School

South Wing

Relocation of network IDF from ceiling to a floor rack closet in hallway

Rack	Tripp Lite - SR42UBDPWD (or equivalent)
Powerstrip	(Part number) HPWPWR (or equivalent)

Battery Backup

1. 1 Rack mounted UPS and 2 battery packs
 - a. Should there be supply chain constraints with the delivery of UPS to NBAS, UPS installation during the school year will take place outside of school hours.
2. Network interface so the UPS can be managed remotely
3. Removable/replacement battery
4. The proposal will include what to expect from battery up-life/up-time when in use
5. Reference Model:
 - a. APC Smart-UPS, Line X, Line Interactive, 2000VA, Rack/tower convertible 2U, 100V-127V, 3x 5-15R+3x 5-20R+1x L5
 - b. Model: SMX2KR2UNCX145 (or equivalent), 2x SMX120RMBP2U (or equivalent)

Network Cabling

Network drops will be labeled with MDF/IDF#, patch panel (A, B, C), port number.

- a. Example: IDF-S-A-01 (S = South)
- 4** Cat 6a drops per classroom (14 locations)
- 2 Data Drops (Blue)
 - 1 Projector - Data Drop (Orange)
 - 1 Wifi - Data Drop (Purple)
- 1** Cat 6a drop per location (12 Locations)1 Data Drop (Green)

Fiber

Fiber between the new South Wing IDF and MDF (Estimated ~450 ft) **12 strands of Single-mode OS2, armored, plenum-rated LC termination.**

Vendor will supply a 1u fiber enclosure, Switch Expansion Module (ICX7400-4X10GF), and 4 (four) 1MLC/LC fiber-optic patch cables for each fiber run.

Each fiber run will be fusion spliced, using pigtails and placed in each fiber-optic tray.

Each fiber will be terminated, tested and certified.

North Wing

Relocation of network IDF from ceiling to a floor rack closet in hallway

Rack	Tripp Lite - SR42UBDPWD (or equivalent)
Powerstrip	(Part number) HPWPWR (or equivalent)

Battery Backups

1. 1 Rack mounted UPS and 2 battery packs
 - a. Should there be supply chain constraints with the delivery of UPS to NBAS, UPS installation during the school year will take place outside of school hours
2. Network interface so the UPS can be managed remotely
3. Removable/replacement battery
4. The proposal will include what to expect from battery up-life/up-time when in use
5. Reference Model:
 - a. APC Smart-UPS, Line X, Line Interactive, 2000VA, Rack/tower convertible 2U, 100V-127V, 3x 5-15R+3x 5-20R+1x L5
 - b. Model: SMX2KR2UNCX145 (or equivalent), 2x SMX120RMBP2U (or equivalent)

Network Cabling

Network drops will be labeled with MDF/IDF#, patch panel (A, B, C), port number.

- a. Example: IDF-N-A-01 (N=North)
- 4** Cat 6a drops per classroom (16 locations)
 - 2 Data Drops (Blue)
 - 1 Projector Data Drop (Orange)
 - 1 Wifi Data Drop (Purple)
 - 2** Cat 6a drops per location (1 Location)
 - 2 Data Drops (Blue)
 - 1** Cat 6a drop per location (10 Locations)
 - 1 Data Drop (Green)

Fiber

Fiber between the new North Wing IDF and MDF (Estimated ~425 ft) **12 strands of Single-mode OS2, armored, plenum-rated LC termination**

Vendor will supply a 1u fiber enclosure, Switch Expansion Module (ICX7400-4X10GF), and 4 (four) 1MLC/LC fiber-optic patch cables for each fiber run.

Each fiber run will be fusion spliced, using pigtails and placed in each fiber-optic tray.

Each fiber will be terminated, tested and certified.

East Wing

Network Cabling

Network drops will be labeled with MDF/IDF#, patch panel (A, B, C), port number.

- a. Example: IDF-E-A-01 (E=East)
- 1** Cat 6a drops per location (9 locations)
 - 1 Projector Data Drop (Orange)

Commons/Media Center Area

Network Cabling

Network drops will be labeled with MDF/IDF#, patch panel (A, B, C), port number.

- a. Example: MDF-A-01
- 3** Cat 6a drops per location (2 locations)
 - 2 Data Drops (Blue)
 - 1 Projector Data Drop (Orange)
 - 1** Cat 6a drops per location (3 locations)
 - 1 Projector Data Drop (Blue)

Gym Mezzanine Mechanical Room

New IDF - rack needed - in mechanical room

Rack	Tripp Lite 42U Shallow-Depth Rack - SR42UBSD (or equivalent)
Powerstrip	(Part number) HPWPWR (or equivalent)

Vendor will also include the necessary accessories, Grounding and 1 sheet 4x8 Fire-rated 3/4-inch Plywood.

Battery Backups

1. 1 Rack mounted UPS and 2 battery packs
 - a. Should there be supply chain constraints with the delivery of UPS to NBAS, UPS installation during the school year will take place outside of school hours.
2. Network interface so the UPS can be managed remotely
3. Removable/replacement battery
4. The proposal will include what to expect from battery up-life/up-time when in use
5. Reference Model:
 - a. APC Smart-UPS, Line X, Line Interactive, 2000VA, Rack/tower convertible 2U, 100V-127V, 3x 5-15R+3x 5-20R+1x L5
 - b. Model: SMX2KR2UNCX145 (or equivalent), 2x SMX120RMBP2U (or equivalent)

Network Cabling

Network drops will be labeled with MDF/IDF#, patch panel (A, B, C), port number.

- a. Example: IDF-M-A-01 (M=Mezzanine)
 - 2 Cat 6a drops per location (4 locations)
2 Drops (Blue)
 - 1 Cat 6a drop per location (10 Locations)
1 Drop (Blue)

Fiber

Fiber between the new Mezzanine IDF and MDF (Estimated ~370 ft) **12 strands of Single-mode OS2, armored, plenum-rated LC termination**

Vendor will supply a 1u fiber enclosure, Switch Expansion Module (ICX7400-4X10GF), and 4 (four) 1MLC/LC fiber-optic patch cables for each fiber run.

Each fiber run will be fusion spliced, using pigtails and placed in each fiber-optic tray.

Each fiber will be terminated, tested, and certified.

Educational Services Center

MDF

- 2 post data rack (45u) (Part number) HPW84RR19 (or equivalent)
Powerstrip (Part number) HPWPWR (or equivalent)

Battery Backups

1. 1 Rack mounted UPS and 2 battery packs

- a. Should there be supply chain constraints with the delivery of UPS to NBAS, UPS installation during the school year will take place outside of school hours.

2. Network interface so the UPS can be managed remotely

3. Removable/replacement battery

4. The proposal will include what to expect from battery up-life/up-time when in use

5. Reference Model:

- a. APC Smart-UPS, Line X, Line Interactive, 2000VA, Rack/tower convertible 2U, 100V-127V, 3x 5-15R+3x 5-20R+1x L5

- b. Model: SMX2KR2UNCX145 (or equivalent), 2x SMX120RMBP2U (or equivalent)

Quest IDF

Relocation of the ceiling location to closet in room 202.

2 post data rack (45u) (Part number) HPW84RR19 (or equivalent)

Isolation Pad (Part number) HRRP315A (or equivalent)

Powerstrip (Part number) HPWPWR (or equivalent)

Vendor will also include the necessary ladder rack & accessories, Grounding and 1 sheet 4x8 Fire-rated 3/4 inch Plywood

Battery Backups

1. 1 Rack mounted UPS and 2 battery packs

- a. Should there be supply chain constraints with the delivery of UPS to NBAS, UPS installation during the school year will take place outside of school hours.

2. Network interface so the UPS can be managed remotely

3. Removable/replacement battery

4. The proposal will include what to expect from battery up-life/up-time when in use

5. Reference Model:

- a. APC Smart-UPS, Line X, Line Interactive, 2000VA, Rack/tower convertible 2U, 100V-127V, 3x 5-15R+3x 5-20R+1x L5

- b. Model: SMX2KR2UNCX145 (or equivalent), 2x SMX120RMBP2U (or equivalent)

Admin IDF

Relocation of IDF from ceiling/wall rack to floor rack

Rack Tripp Lite 42U Shallow-Depth Rack - SR42UBSD (or equivalent)

Powerstrip (Part number) HPWPWR (or equivalent)

Battery Backups

1. 1 Rack mounted UPS and 2 battery packs

- a. Should there be supply chain constraints with the delivery of UPS to NBAS, UPS installation during the school year will take place outside of school hours

2. Network interface so the UPS can be managed remotely

3. Removable/replacement battery

4. The proposal will include what to expect from battery up-life/up-time when in use

5. Reference Model:

- a. APC Smart-UPS, Line X, Line Interactive, 2000VA, Rack/tower convertible 2U, 100V-127V, 3x 5-15R+3x 5-20R+1x L5

- b. Model: SMX2KR2UNCX145 (or equivalent), 2x SMX120RMBP2U (or equivalent)

Item List

Item	Part Number	Quantity
APC Smart-UPS, Line X, Line Interactive, 2000VA	SMX2KR2UNCX145 (or equivalent)	6
APC Smart-UPS X Battery pack	SMX120RMBP2U (or equivalent)	12
Tripp Lite 42U Rack Enclosure	SR42UBDPWD (or equivalent)	1
Tripp Lite 42U Shallow-Depth Rack Enclosure	SR42UBSD (or equivalent)	2
2 post data rack (45u)	HPW84RR19 (or equivalent)	2
Tripp Lite 10u	SRW10US (or equivalent)	1
Power Strip	HPWPWR (or equivalent)	6
Switch Expansion Module	ICX7400-4X10GF (or equivalent)	3
Cat 6 Cable Drops	CAT6a plenum (or equivalent)	180 drops
Fiber Runs	12 strands of Single-mode OS2, armored, plenum-rated LC termination	3 runs
Fiber Patch Cables	1M LC/LC Single-mode fiber-optic patchcables (or equivalent)	12

*Not a complete list - **see areas above for more details.**

See list below for a more consolidated list.

EQUIVALENT ITEMS WILL BE CONSIDERED

North Branch Area Schools

2023-24 Cat 2 List

South Wing

- 1 UPS
- 2 UPS Battery
- 70 CAT6a Cable Drops
- 26 Single Gang Surface Mount Box
- 70 CAT6a Keystones for all cables
- 14 Faceplates
- 14 Back Boxes
- 450' 12 strands of Single-mode OS2, armored, plenum-rated LC termination.
- 450' 1" Orange Plenum Rated Innerduct for Fiber
- 1 1U Fiber Enclosure
- 4 1M LC/LC Patch Cord SM
- 1 Single Mode Switch Expansion Module
- 1 Rack
- 1 Power Strip
- 2 48 Port CAT6a Patch Panels
- 82 3' CAT6a Patch Cords
- 28 7' CAT6a Patch Cords
- 1 LC to LC Adaptor for Enclosure
- 2 Horizontal Cable Management Panels

North Wing

- 1 UPS
- 2 UPS Battery
- 74 CAT6a Cable Drops
- 26 Single Gang Surface Mount Box
- 74 CAT6a Keystones for all cables
- 17 Faceplates
- 16 Back Boxes
- 425' 12 strands of Single-mode OS2, armored, plenum-rated LC termination.
- 425' 1" Orange Plenum Rated Innerduct for Fiber
- 1 1U Fiber Enclosure
- 4 1M LC/LC Patch Cord SM
- 1 Single Mode Switch Expansion Module
- 1 Rack
- 1 Power Strip
- 2 48 Port CAT6a Patch Panels
- 86 3' CAT6a Patch Cords
- 34 7' CAT6a Patch Cords
- 1 LC to LC Adaptor for Enclosure SM
- 2 Horizontal Cable Management Panels

East Wing

- 9 CAT6a Cable Drops
- 1 Single Gang Surface Mount Box
- 9 CAT6a Keystones for all cables
- 9 Faceplates
- 9 Back Boxes
- 1 48 Port CAT6a Patch Panels
- 20 3' CAT6a Patch Cords
- 18 7' CAT6a Patch Cords

Commons Area/MDF

- 9 CAT6a Cable Drops
- 2 Single Gang Surface Mount Box
- 9 CAT6a Keystones for all cables
- 5 Faceplates
- 5 Back Boxes
- 1 48 Port CAT6a Patch Panels
- 11 3' CAT6a Patch Cords
- 7 7' CAT6a Patch Cords
- 1 Horizontal Cable Management Panels
- 1 1U Fiber Enclosure
- 3 LC to LC Adaptor for Enclosure SM

Gym Mezzanine

- 1 UPS
- 2 UPS Battery
- 18 CAT6a Cable Drops
- 10 Single Gang Surface Mount Box
- 18 CAT6a Keystones for all cables
- 4 Faceplates
- 4 Back Boxes
- 370' 12 strands of Single-mode OS2, armored, plenum-rated LC termination.
- 370' 1" Orange Plenum Rated Innerduct for Fiber
- 1 1U Fiber Enclosure
- 4 1M LC/LC Patch Cord SM
- 1 Single Mode Switch Expansion Module
- 1 Power Strip
- 1 48 Port CAT6a Patch Panels
- 28 3' CAT6a Patch Cords
- 8 7' CAT6a Patch Cords
- 1 Horizontal Cable Management Panels
- 1 1U Fiber Enclosure
- 1 LC to LC Adaptor for Enclosure SM
- 1 42U, Shallow Depth Rack

Educational Services Center

- 1 45U, 2 Post Rack
- 1 Power strip
- 1 Move existing cables and patch panels to new rack
- 1 UPS
- 2 UPS Battery
- 2 48 Port CAT6a Patch Panels
- 50 3' CAT6a Patch Cords
- 2 Horizontal Cable Management Panels
- 1 Clean up old telephone cables on back board

Quest IDF

- 1 45U, 2 Post Rack
- 1 Power strip
- 1 Move existing cables to new rack
- 1 UPS
- 2 UPS Battery
- 2 48 Port CAT6a Patch Panels
- 96 3' CAT6a Patch Cords
- 2 Horizontal Cable Management Panels

Admin IDF

- 1 42U, Shallow Depth Rack
- 1 Power strip
- 96 Move existing cables to new rack
- 1 UPS
- 2 UPS Battery
- 1 Move and/or extend cables to new rack
- 2 48 Port CAT6a Patch Panels
- 96 3' CAT6a Patch Cords
- 3 Horizontal Cable Management Panels

North Branch High School

The floor plan of North Branch High School is divided into several wings and areas. The North Wing (top right) contains rooms 100 through 116, including the Auditorium, Cafeteria, and Band. The East Wing (middle right) contains rooms 137 through 143, including the Lecture Hall and Media Center. The South Wing (bottom right) contains rooms 120 through 126. The Gymnasium is located in the bottom left, and the Fitness Center is in the bottom left corner. The Gym Mezzanine Mechanical Room IDF is located in the bottom left corner. The South Wing IDF is located in the bottom right corner. The North Wing IDF is located in the top right corner. The East Wing IDF is located in the middle right. The plan also shows various corridors and outdoor spaces.

North Wing IDF

North Wing

East Wing

South Wing

South Wing IDF

Gym Mezzanine Mechanical Room IDF

Room numbers: 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143.

Room names: Auditorium, Cafeteria, Band, Lecture, Media Center, Gymnasium, Fitness Center, Office.

Familial Relationships

As required by Michigan Law (P.A. 232 of 2004), all proposals/bids must be accompanied by a sworn and notarized statement disclosing any familial relationship that exists between the Owner or employee of the bidder and any member of the North Branch Schools district or North Branch School District School Board. The Board will not accept a bid that does not include this sworn and notarized statement.

FAMILIAL DISCLOSURE STATEMENT

All bidders must complete the following familial disclosure form in compliance with MCL 380.1267 (Public Act 232 of 2004) and attach this information to the bid.

By the attached sworn and notarized statement, we are disclosing the following familial relationship(s) that exists between the owner or any employee of the bidder and any member of the school board, the superintendent, chief financial officer, administrator, or supervisor of the public school district. North Branch Area Schools shall not accept a bid that does not include this sworn and notarized disclosure statement.

Disclose any familial relationship and complete the form below in its entirety:

The following are familial relationships as described above (provide employee name, family contact name, family contact position, and familial relationship or NONE.)

Signature(s): _____

Title: _____

Name of firm: _____

STATE OF MICHIGAN)
) SS
COUNTY OF)

On this _____ day of _____, 20____, before me a Notary Public in and for said county, personally appeared _____, agent of the said firm

_____ and who acknowledged the same to be his free act and deed as such agent.

Notary Public

AFFIDAVIT OF COMPLIANCE – IRAN ECONOMIC SANCTIONS ACT
Michigan Public Act No. 517 of 2012

The undersigned, the owner or authorized officer of _____
(the “Bidder”), pursuant to the compliance certification requirement provided in the North Branch Area Schools (“The District”) Request for Proposal hereby certifies, represents and warrants that the Bidder (including its officers, directors and employees) is not an “Iran Linked Business” within the meaning of the Iran Economic Sanctions Act, Michigan Public Act No. 517 of 2012 (the “Act”), and that in the event Bidder is awarded a Contract as a result of the aforementioned Request for Proposal, the Bidder will not become an “Iran Linked Business” at any time during the course of performing under the Contract.

The Bidder further acknowledges that any person who is found to have submitted a false certification is responsible for a civil penalty of not more than \$250,000.00 or 2 times the amount of the Contract or proposed Contract for which the false certification was made, whichever is greater, the cost of The District’s investigation, and reasonable attorney fees, in addition to the fine. Moreover, any person who submitted a false certification shall be ineligible to bid on a Request for Proposal for three (3) years from the date the it is determined that the person has submitted the false certification.

BIDDER:

Name of Bidder

By: _____

Its: _____

Date: _____

STATE OF _____)

)ss.

COUNTY OF _____)

This instrument was acknowledged before me on the _____ day of

_____, 2023, by _____.

, Notary Public

County, _____

My Commission Expires: _____

Acting in the County of: _____