TOWN OF LINCOLN



FY26 Capital Budget Application SUBMISSION ARE DUE BY FRIDAY, SEPTEMBER 27, 2024

DATE: August 28, 2024 **** DRAFT ****

DEPARTMENT / COMMITTEE: Lincoln Public Schools

Submitting Official, title: Rob Ford, Director of Educational Operations & Technology

Contact Phone: 781-259-9400 x4307 Contact Email: rford@lincnet.org

ITEM / PROJECT: Hartwell Building Network Cabling and PA Replacement

ITEM / PROJECT COST: \$50,000 (estimate; in the process of getting updated quotes)

CONTINGENCY COST: (Amount over project cost added in case of unexpected increase): \$5,000 (10%)

TOTAL REQUEST AMOUNT: \$55,000

NEW OPERATING COSTS: (Any new amount you expect this project will add to your annual operating budget, can be 0): \$0

<u>OTHER FUNDING SOURCES:</u> (Are there other sources of funding to support this project: i.e. Revolving Funds, Gift Accounts, Fundraising, etc.) Click or tap here to enter text.

WARRANTY INFO: (Is a warranty available? Cost? Duration?): Network cabling work and PA equipment is typically warrantied for 1 year.

REQUEST RANK: 1 OUT OF 4 TOTAL REQUESTS

REPLACEMENT STATUS:

□ REPLACEMENT □ NEW ITEM / CAPITAL PROJECT-skip to next section

Description of item to be replaced (e.g., make, model year, plate, mileage):

The Hartwell Building network cabling, network closet, and public address (PA) system has been cobbled together through different projects over many years. We believe the majority of the data cabling in the building is at least 25 years old. The data cabling in the area of the building that was partially renovated in 2021 is new and does not need to be replaced. The PA system includes some cabling and wiring that we believe is 30 or more years old. Both the cabling and the PA system are beyond their reasonable life and have been identified as needing replacement for several years now, but were deferred while the community made a decision on the Community Center project.

Date acquired/installed: Unknown, but believed to be 2000 or earlier. **Will replaced item be sold, traded in, disposed, other:** disposed of

PROJECT TIMELINE:

Date bids will be solicited: 6/1/2025

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Planned purchase date/work start: 8/1/2025

Service start date: 9/1/2025

The dates above are tentative. The work would be coordinated with the Community Center project.

<u>COMMUNITY PRESERVATION ACT FUNDS</u> : may be available for PROJECTS (NOT ITEMS) intended to preserve Lincoln's historic resources and structures; preserve and enhance Lincoln's open space for both conservation and recreation; and preserve and increase Lincoln's affordable housing to foster economic, racial/ethnic and age diversity.		
1) Do you feel your project qualifies for any of the categories below? □ Affordable Housing □ Historic Preservation □ Conservation/Open Space □ Recreation		
2) If so, how is the project consistent with Lincoln's vision and with its Housing, Historic Preservation, Open Space/Conservation Plans, or Recreation Plans, and with other planning documents that have received town-wide review and input? Please explain		
3) If so, does the project have the support of relevant town committees or organizations (e.g. Conservation, Recreation, Historic District or Historical, Housing, etc.)? Please explain		

REQUEST NARRATIVE: This application is really a coversheet. In an attached document, please describe your request. (In addition to describing the actual item requested, please provide Lincoln-specific context for the request such as: will fulfillment of this request maintain level services or add new services? Is there a professional or trade association requirement for this request? Does this request have other financial support, and if so describe? How will fulfilling this request further the mission of your department? How would it benefit the Town?)

<u>ATTACHMENTS:</u> (Include backup documentation for the project cost estimate such as professional or commercial quotes, specification sheets, etc.) List the attachments you've provided here:

We are in the process of gathering estimates and will update this proposal before submission.

QUESTIONS? Contact Dan at 781-259-2603 or pereirad@lincolntown.org

SUBMISSIONS ARE DUE BY FRIDAY, SEPTEMBER 27, 2024

Request Narrative

The Hartwell Building and three adjacent pods have data cabling and PA equipment that are in need of replacement. The cabling does not meet the current needs of the building's use, does not need meet current code, and is in poor condition. The PA system is antiquated and only partially integrated with the campus system. This project had been deferred pending the outcome of the community center vote, and now that we know the pods do not need to be addressed and the project scope is clear, we are proposing this project for FY26.

Current Conditions

We do not know the exact year that the data cabling and PA system were installed in the Hartwell Building, but we believe the majority of the cabling is at least 25 years old and many components of the PA system are older than that. The data cabling is a mix of CAT3 and CAT5 cabling, well below the specifications of current CAT6 cabling. Much of the cabling is not installed to current standards and code. Most of it is not run through conduit, is zip-tied to electrical conduits, and/or is run through unprotected penetrations in concrete block walls or floors. In most rooms the terminations are not protected or are in boxes that are loose on the floor and many have been accidentally broken. The terminations in the network closet are substandard, and some of the cabling, both fiber and copper has become brittle and begun to break (for instance, 9 of the 12 strands of fiber that originally ran from Hartwell to Pod A have snapped at their terminations). In several areas there are not enough network connections available, leading to the use of small switches throughout the building. The exception to above conditions are the facilities and technologies offices that were built out in 2021, and are fully recabled.

The network closet itself also needs to be updated. Deficiencies include abandoned wiring, terminations that are failing, network equipment installed directly adjacent to heating equipment, and inadequate physical security. In addition, lessee (Magic Garden) equipment is not segregated from LPS equipment, which presents security concerns.

The PA system has been cobbled together over many years and is only partially integrated with the new Valcom system installed as part of the Lincoln School project. Components, primarily speakers, have been regularly failing and we have been replacing them as this occurs. While the building can receive PA calls initiated from the school, rooms without an LPS phone are not able to initiate an emergency PA call. In addition, we have no visibility into the state of the analog PA amplifier and do not know if it is powered off or otherwise offline without visually checking it. The amplifier is also installed on the top of a tall book case and servicing it presents some safety concerns. These issues with the PA system make the offices and classrooms in the Hartwell Building less safe in an emergency than similar spaces in the school building.

Project Scope

The goal of this project is to replace the deficient cabling, including provisions for potential future access control and security cameras, update the network closet, and upgrade the PA system.

Data Cabling

• Install two CAT6 connections in each office and classroom to support VOIP phones, computers, printers, and other devices.

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- Install one CAT6E connection for a wireless access points in each classroom and office "zone".
- Install a CAT6 connection for a PA speaker in each classroom and office "zone." Install a second CAT6 connection for an emergency call device in each classroom, in the Multipurpose Room (MPR), and in the Magic Garden office.
- Install CAT6 cabling for future access control and security cameras at 10 locations.
- Install additional low voltage cabling as required for non-IP PA speakers in halls and individual offices.
- All cabling to be installed per current electrical code and appropriately protected through the use of conduit, cable trays, etc.

Network Closet

- Remove HVAC heating element.
- Remove abandoned cabling, 110 blocks, and abandoned fiber terminations.
- Install security cage at the top of the closet.
- Install a new "colocation" network cabinet with separately secured areas for LPS equipment and lessee (Magic Garden) equipment.
- Route and support all network cabling to current standards.
- Include provisions for potential Community Center connections for campus safety systems.
- Reroute and properly support incoming fiber and utilities, and data cabling from 2021 project. Re-terminate as necessary.

PA System

- Install an IP PA speaker in each classroom and office "zone." In the office "zones" install auxiliary speakers for each individual office connected to the IP speaker.
- In each classroom, in the Multipurpose Room (MPR), and in the Magic Garden office install an emergency PA call button.
- In the hallways and in the basement storage area install analog speakers as page zones on the existing Valcom PA equipment. Evaluate currently installed speakers and reuse if in good condition.
- Integrate with the campus Valcom PA system

Community Center Coordination

The timing of this project will be carefully coordinated with the Community Center project. Work in the network closet will not begin until the pods are ready to go offline due to the fragility of the existing fiber to the pods. Other coordination considerations include the use of Hartwell rooms for swing space, the maintenance shop move, and the timing of construction.

Budget Estimate

The \$50,000 budget estimate is carried forward from an initial estimate based on similar projects we are in the process of getting an updated budget quote to include in the final submission to the capital committee.

TOWN OF LINCOLN



FY26 Capital Budget Application SUBMISSION ARE DUE BY FRIDAY, SEPTEMBER 27, 2024

DATE: August 27, 2024

DEPARTMENT / COMMITTEE: School Dept

Submitting Official, title: Brandon Kelly Facilities Director

Contact Phone: 781-259-2696 Contact Email: brkelly@lincnet.org

ITEM / PROJECT: Sewer Ejector Pumps

ITEM / PROJECT COST: \$35,000

CONTINGENCY COST: (Amount over project cost added in case of unexpected increase): \$5,000

TOTAL REQUEST AMOUNT: \$40,000

NEW OPERATING COSTS: (NA

OTHER FUNDING SOURCES: (NA

WARRANTY INFO: (Is a warranty available? Cost? Duration?): Standard Manufacturers warranty

REQUEST RANK: 4. OUT OF 4 TOTAL REQUESTS

REPLACEMENT STATUS:

REPLACEMENT

□ **NEW ITEM / CAPITAL PROJECT**-skip to next section

Description of item to be replaced (e.g., make, model year, plate, mileage):

Click or tap here to enter text.

Date acquired/installed: Click here to enter a date.

Will replaced item be sold, traded in, disposed, other: Rebuilt for Spare

PROJECT TIMELINE:

Date bids will be solicited: 7/1/25

Planned purchase date/work start: 7/1/25

Service start date: 7/1/25

<u>COMMUNITY PRESERVATION ACT FUNDS:</u> may be available for PROJECTS (NOT ITEMS) intended to preserve Lincoln's historic resources and structures; preserve and enhance Lincoln's open space for both conservation and recreation; and preserve and increase Lincoln's affordable housing to foster economic, racial/ethnic and age diversity.

1)	Do you feel your project qualifies for any of the categories below?
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2)	If so, how is the project consistent with Lincoln's vision and with its Housing, Historic Preservation, Open Space/Conservation Plans, or Recreation Plans, and with other planning documents that have received town-wide review and input? Please explain
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SUBMISSIONS ARE DUE BY FRIDAY, SEPTEMBER 27, 2024

Description:

On campus we have 7 sewer ejector pumps. The 3 at the Hartwell building are at least 15 years old and becoming close to the end of life.. There are 4 more located at the PreK-8 School. When the pumps break the new pumps are made in Germany and are built to order resulting in lead times upto 6 months. I would like to purchase 2 pumps to have on hand for emergency situations so we can get the systems back up and running quickly.

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FY26 Capital Budget Application SUBMISSION ARE DUE BY FRIDAY, SEPTEMBER 27, 2024

DATE: August 27, 2024

DEPARTMENT / COMMITTEE: School Dept

Submitting Official, title: Brandon Kelly Facilities Director

Contact Phone: 781-259-2696 Contact Email: brkelly@lincnet.org

ITEM / PROJECT: Run a generator feeder Line from Community Center to Hartwell

ITEM / PROJECT COST: \$30,000

CONTINGENCY COST: (Amount over project cost added in case of unexpected increase): \$20,000

TOTAL REQUEST AMOUNT: \$50,000

NEW OPERATING COSTS: (Any new amount you expect this project will add to your annual operating budget, can be 0): NA

OTHER FUNDING SOURCES: (Are there other sources of funding to support this project: i.e. Revolving Funds, Gift Accounts, Fundraising, etc.) NA

WARRANTY INFO: (Is a warranty available? Cost? Duration?): NA

REQUEST RANK: 2 OUT OF 4. TOTAL REQUESTS

REPLACEMENT STATUS:

NEW ITEM / CAPITAL PROJECT-skip to next section ☐ REPLACEMENT

Description of item to be replaced (e.g., make, model year, plate, mileage):

Click or tap here to enter text.

Date acquired/installed: Click here to enter a date.

Will replaced item be sold, traded in, disposed, other: Choose an item.

PROJECT TIMELINE:

Date bids will be solicited: 7/1/25

Planned purchase date/work start: 7/1/25

Service start date: 7/1/26

COMMUNITY PRESERVATION ACT FUNDS: may be available for PROJECTS (NOT ITEMS) intended to preserve Lincoln's historic resources and structures; preserve and enhance Lincoln's open space for both

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SUBMISSIONS ARE DUE BY FRIDAY, SEPTEMBER 27, 2024

Description:

This request is to partner up with the new Community Center to install a 4 inch electrical conduit that would allow Hartwell to have some life safety and basic power backup during grid outages. The Hartwell building currently does not have a backup generator and with proper planning a single generator could serve both the Community Center and the Hartwell Building. We would not be looking for the whole electrical demand to be served rather a single panel with specific electrical needs.

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FY26 Capital Budget Application SUBMISSION ARE DUE BY FRIDAY, SEPTEMBER 27, 2024

DATE: August 27, 2024 *** DRAFT ***

DEPARTMENT / COMMITTEE: School Dept

Submitting Official, title: Brandon Kelly Facilities Director

Contact Phone: 781-259-2696 Contact Email: brkelly@lincnet.org

ITEM / PROJECT: Upgrade MPR mini-split from AC only to Heat and AC and add a unit in Conference

Room

ITEM / PROJECT COST: \$40,000

CONTINGENCY COST: (Amount over project cost added in case of unexpected increase): \$10,000

TOTAL REQUEST AMOUNT: \$50,000

NEW OPERATING COSTS: (Increase in electricity but decrease in natural gas.

<u>OTHER FUNDING SOURCES:</u> (Are there other sources of funding to support this project: i.e. Revolving Funds, Gift Accounts, Fundraising, etc.) NA

WARRANTY INFO: (Is a warranty available? Cost? Duration?): Standard Manufacturers warranty (1 year)

REQUEST RANK: 3 OUT OF 4. TOTAL REQUESTS

REPLACEMENT STATUS:

REPLACEMENT

NEW ITEM / CAPITAL PROJECT-skip to next section

Description of item to be replaced (e.g., make, model year, plate, mileage):

Mitsubishi Mr. Slim Model MSY-D36NA

Date acquired/installed: Click here to enter a date.

Will replaced item be sold, traded in, disposed, other: auctioned off.

PROJECT TIMELINE:

Date bids will be solicited: 7/1/25

Planned purchase date/work start: 7/1/25

Service start date: 7/14/25

<u>COMMUNITY PRESERVATION ACT FUNDS:</u> may be available for PROJECTS (NOT ITEMS) intended to preserve Lincoln's historic resources and structures; preserve and enhance Lincoln's open space for both

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SUBMISSIONS ARE DUE BY FRIDAY, SEPTEMBER 27, 2024

*** DRAFT ***

Description:

This request is to remove the current AC only Mr Slim Unit that in the MPR Conference room and install a Mitsubishi ductless mini split which will provide heat and AC through a fully electric heat pump. We can also provide a unit in the conference room next to it that will run off of the same exterior heat pump and will just need the wall mounted unit in the conference room. Currently there is no AC in this second conference room. This is a continuation of the overall goal which is to get Hartwell to a fully electric dependent building and being able to remove the old gas fired boiler heat sources.