

Capital Projects – Essex Elementary

- Ongoing commitment to extend life of EES and ensure district-wide parity of instructional program and student experience following MMES New School Project
 - Instructional Technology
 - Network Infrastructure
 - Playground
 - Facilities Infrastructure
 - Security

Instructional Technology

- Migration to 1:1 for student devices completed
 - iPads K-2
 - Chromebooks 3-5
 - \$70K cost of units – via 3-year leases to ensure recurring budget funding for eventual replacement
- Summer 2021 plan to replace classroom Interactive Boards (\$130K) via reserves

Network Infrastructure

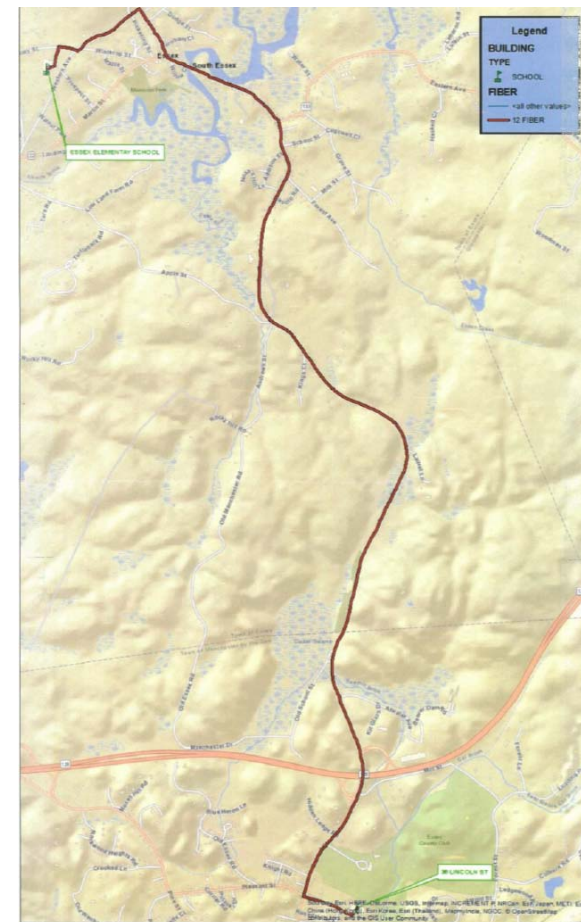
- Fiber Optic Installation
- Network Switch Gear

MERSD - Essex Fiber Project

Project Cost: \$122,030

MERSD cost after eRATE = \$73,218

- What is It:
 - 12 bundled lines connecting MSHS and EES
 - 2 lit up initially for data (WAN) and phone; extensible as needed at no extra cost
 - Matches capacity from HS to MMES
 - MMES connection funded at \$0 cost via savings from replacing modem/MPLS (phone)
- What are the Benefits?
 - Speeds:
 - Increased Internet speeds to 1GB dedicated, district-wide (from 50MB)
 - MERSD internal network speeds increased to 10 GB.
 - Replaces antiquated Verizon copper lines/technology
 - Uses:
 - 1:1 device initiative already in place
 - Multi-media teaching practices
 - Operating infrastructure communications between schools (e.g., email, file sharing, library databases, purchasing software)
 - Video feeds for security with member town Police/Fire, and between schools
 - Providing capacity for technology updates

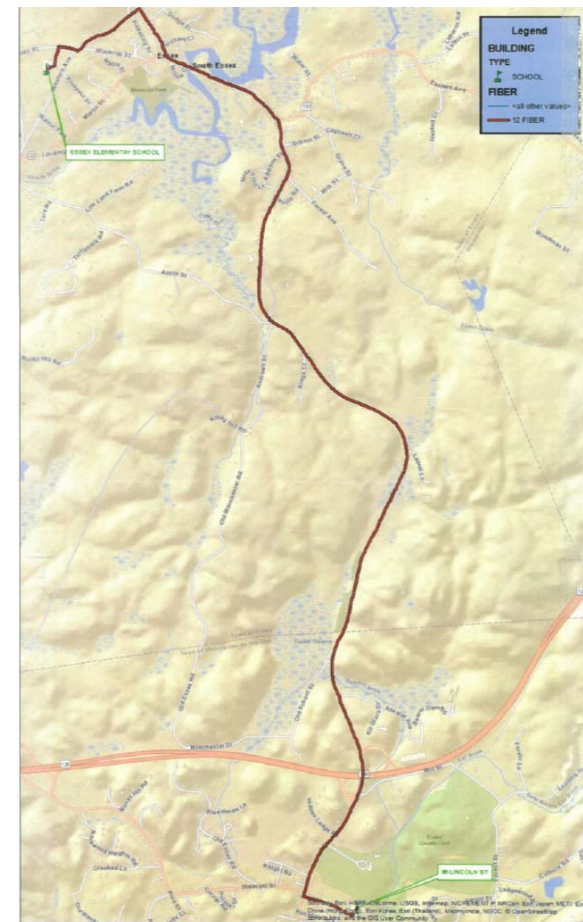


MERSD - Essex Fiber Project – *contd.*

Project Cost: \$122,030

MERSD cost after eRATE = \$73,218

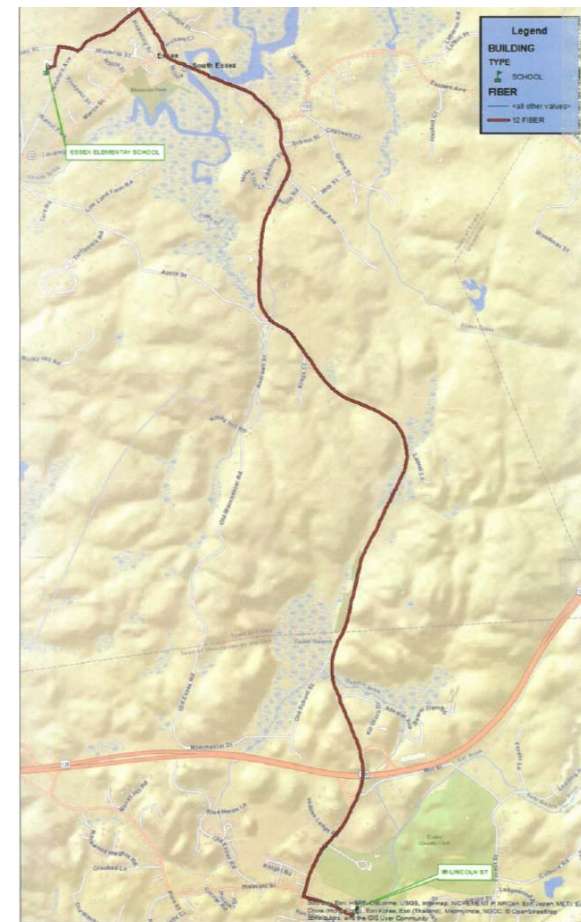
- Why Now:
 - eRate Reimbursement 40% savings not be available in future.
- What is Cost to MERSD?
 - \$73K net cost to MERSD after eRate contribution
 - 6-8 year payback, via \$10-13K annual budget savings:
 - Current Price for Phone system MPLS connection between buildings. \$7,140
 - Current price for internet modem speed 50 Mbps. \$1800 (\$4.5K when increased)
 - Web filtering for EES: \$1K
- Alternatives:
 - Increase Internet modem speeds and maintain dual infrastructure for Internet and MPLS/Phone
 - Fund 100% by District in the future, after eRate contribution expires



MERSD - Essex Fiber Project – *contd.*

- Potential MBTS Partnership
 - Fiber line could enable MBTS to connect to Town of Essex for access to:
 - Danvers Regional IT Center
 - Middletown Regional Dispatch Service
 - Other services potentially coming to towns (e.g. shared software)
 - Interest from MBTS in funding a portion of the project:
 - Direct contribution to project for dedicated access
 - Offset MERSD reserve usage for COVID costs via MBTS CARES funds in a similar amount

Project Cost: \$122,030
MERSD cost after eRATE = \$73,218



MERSD – Essex Switch Project

Project Cost: \$27,693

MERSD cost after eRATE = \$16,616

- Why Now:
 - Essex School switching current age 7-10 years.
 - Warranty has expired. New switches carry lifetime warranty.
 - Match speed of MSHS and MMES via building projects
 - Current Erate Reimbursement 40% savings available through summer 2021.
- Benefits:
 - Replacement is needed regardless
 - 40% offset from eRate if act now
 - Uniform capacity, district-wide
 - Speeds to match any fiber upgrade (network speeds up to 10 GB per fiber line w/ability to expand).
- Future proof Essex Elementary School technology.



EES Facilities

- Green Communities Grant Partnership
 - 3rd round of funding offered from Town of Essex to make EES more energy/cost efficient
 - New project, if accepted by State will complete districtwide modernization of HVAC digital controls
 - \$100-200K upgrades would have multi-year pay back without grant, but will be \$0 cost if grant is approved
- Upcoming Projects
 - Boiler replacement remains a pressing concern (\$100K est.)
 - Following close of MMES project, update of Habeeb report estimates would provide data to begin investigatory phase of longer-term EES solutions

Security

- MMES Project includes security upgrades that will be replicated districtwide
 - Video camera software
 - Swipe card access
 - Visitor digital log
- With camera and swipe hardware already districtwide, expected cost will be for software upgrades of 2010-2012 installations.
 - Price estimates TBD