

REQUEST FOR BOARD ACTION

HENDERSON COUNTY BOARD OF COMMISSIONERS

MEETING DATE: April 3, 2017

SUBJECT: **Public Sewer Service for Edneyville Elementary**

PRESENTER: Marcus Jones, PE

ATTACHMENTS: Yes

1. Cost Estimate from WGLA Engineering

SUMMARY OF REQUEST:

During the budget retreat on January 17, 2017, the Board approved the replacement of Edneyville Elementary on the same property as the existing school. In addition and in response to the documented problems with the current on-site system, the Board directed staff to investigate the feasibility of extending public sewer to the property.

Staff and Will Buie, PE from WGLA Engineering met with Hendersonville Utilities to determine if the City would accept the school's extension to their system. The school is within the City's proposed sewer service area, the City currently provides water to the area, and an extension would connect to the City's existing system. The City is agreed to accepting the extension as part of their system. The cost of the extension would be at the County's expense.

The next step was to determine a preliminary cost to extend the City's system to the school. WGLA determined that gravity service to the school is not feasible; almost five miles of new sewer line would be required at a cost of approximately \$4,000,000. Therefore, the school would need to be served by a pump station and force main running along US64 to the City's existing system in the vicinity of North High School. The preliminary cost of the pump station and force main is \$1,500,000. Unfortunately, this option would limit the customers that can connect to the extension in the future.

Chad Roberson with ClarkNexsen, the County's architect for the Edneyville School project has reported that the project's budget currently has \$500,000 allocated for an on-site sewer system. Therefore an additional \$1,000,000 is needed to add public sewer service to the school project. Edneyville is the only school in the County not currently on a public sewer system.

Coincidentally, staff recently received information from NC Commerce regarding a new grant opportunity to provide infrastructure to schools with documented problems with their existing water and sewer service. The grant funding is under the Community Development Block Grant program. There is \$4.5 Million available for grants up to \$1 Million. The schedule of the grant opportunity correlates with our project. After attending an information meeting on the grant, staff believes our project is eligible. The grant could cover the additional cost to the project.

Lastly, it is possible for other entities in the vicinity of the school to join the project to extend sewer to their property in addition to the school. Staff has been approach by several possibly property owners, and the County's Environmental Health Supervisor has provided owner's in the vicinity that are experiencing problems with their private on-site systems. Another possible addition is the NC Justice Academy; the County owns and operates the wastewater plant serving the Academy.

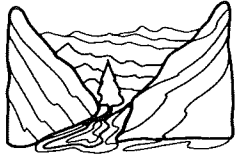
To be consistent with typical sewer extension policies, any additional service connections and the added capacity to the pump station would need to be paid for by the private property owner. Also, any required utility easements for the private connections would need to be executed prior to the design of the extension. The design of the school's system will need to begin within the next four months to be completed by the new schools opening in August 2019.

BOARD ACTION REQUESTED:

Approve an additional allocation to the Edneyville Elementary Project's budget of \$1,000,000 to extend the City's sewer system with a pump station and force main, direct staff to pursue the CDBG grant to fund water and sewer infrastructure, and direct staff to investigate private additions to the sewer project at their expense and within the project's schedule.

Suggested Motion:

I move that the Board approve an additional allocation to the Edneyville Elementary Project's budget of \$1,000,000 to extend the City's sewer system with a pump station and force main, direct staff to pursue the CDBG grant to fund water and sewer infrastructure, and direct staff to investigate private additions to the sewer project at their expense and within the project's schedule.



WGLA Engineering, PLLC

Civil Engineering & Land Planning

March 15, 2017

Mr. Marcus Jones, P.E.; County Engineer
Henderson County
1 Historic Courthouse Square, Suite 6
Hendersonville, NC 28792

RE: Sewer Service for Proposed Edneyville Elementary School
Preliminary Cost Estimate
WGLA #17124

Dear Mr. Jones:

As requested, we have prepared a preliminary cost estimate for providing sewer service to the proposed Edneyville Elementary School. Since the school is located in the Clear Creek Drainage Basin and naturally flows back to Hendersonville's sewer system, we met with the City to discuss the project on February 23, 2017. Based on our discussions with the City, the Edneyville site could likely gravity flow back to the Hendersonville system; however this would require an extension of almost 5 miles and easements from dozens of property owners. This option is likely not feasible due to the cost and the timing of design, permitting, easement acquisition and construction.

The school could be served by a pump station and force main back to Hendersonville's sewer system. The City has indicated they would be willing to take over maintenance of the system pending approval by the City Council and the County Commissioners. The estimated cost for this option is \$1,500,000 and includes a pump station, approximately 16,000 feet of force main and 3,400 feet of gravity sewer.

As you know, there are other stakeholders along the US 64 corridor who have expressed interest in sewer service. Some of those stakeholders include Camp Judaea, Edneyville Community Center, Edneyville Library, Edneyville Park, Edneyville Fire Department, multiple commercial and industrial facilities, and several residential subdivisions. If desired, we could engage those interested parties and prepare a preliminary engineering report to determine potential costs for these other users.

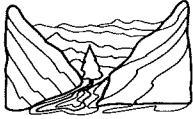
From a timing standpoint, the proposed school would need service before August 1, 2019. We would recommend allowing 12 months for construction and 12 months for surveys, design, permitting and bidding. Therefore, any project for sewer service should proceed no later than August 2017.

Don't hesitate to contact our office if you have any questions or need additional information.

Sincerely,
WGLA Engineering, PLLC

A handwritten signature in black ink, appearing to read 'W. R. Buie', with a long horizontal stroke extending to the right.

William R. Buie, P.E.



WGLA ENGINEERING, PLLC
Consulting Engineers and Land Planners

**Preliminary Cost Estimate
Edneyville Elementary School
Sewer Service Estimate**

Date: 03/14/17

Project #:

Site Improvements

Pump Station (City of Hendersonville standards)	1	LS	\$350,000.00	\$350,000.00
6" PVC Force Main	16,400	LF	\$25.00	\$410,000.00
8" Gravity Sewer	3,400	LF	\$50.00	\$170,000.00
4' Diameter Precast Manhole	13	EA	\$2,600.00	\$33,800.00
Stone for Bedding	1,200	TN	\$30.00	\$36,000.00
12" Steel Casing Bored and Jacked Under Roadway (force main)	200	LF	\$250.00	\$50,000.00
16" Steel Casing Bored and Jacked Under Roadway (gravity)	150	LF	\$375.00	\$56,250.00
Air Release Vales in Manholes	7	EA	\$5,000.00	\$35,000.00
Asphalt Open Cut and Patch	350	SY	\$50.00	\$17,500.00
Concrete Open Cut and Patch	50	SY	\$75.00	\$3,750.00
Gravel for Driveways	300	TN	\$28.00	\$8,400.00
Incidental Stone	150	TN	\$28.00	\$4,200.00
Erosion Control Measures	1	LS	\$30,000.00	\$30,000.00
Seeding and Mulching	1	LS	\$15,000.00	\$15,000.00

SUBTOTAL \$1,219,900.00

TOTAL ESTIMATED CONSTRUCTION COST

\$1,219,900.00

Contingency (10%)				\$121,990.00
Engineering, Design and Permitting				\$58,500.00
Construction Administration and Inspection				\$28,500.00
Surveying (assumes location surveys only, no easement plats)				\$35,000.00
Environmental Permitting				\$7,500.00
Legal				\$5,000.00
As-builts and Platting for Pump Station				\$20,000.00
Permit Fees				\$2,500.00

TOTAL ESTIMATED PROJECT COSTS

\$1,498,890.00