



January 10, 2017

Mike Fitzgerald  
Head of Maintenance  
Northwest Public Schools  
Grand Island, NE 68803

RE: Northwest Public Schools  
2017 Water Main Extensions  
Grand Island, Nebraska  
JEO Project No. 161589.01

Dear Mr. Fitzgerald:

Enclosed are two (2) originals of JEO's standard short form agreement for services on the above referenced project. Please review, and if acceptable, execute each copy and return one (1) original for our files.

The first part is the standard terms that are applicable to the entire agreement. Exhibit A defines the work that JEO expects to perform as part of basic services and examples of the types of work that may be required as additional services along with JEO's fees for services. Exhibit B defines general conditions of the agreement including the level of insurance provided by JEO.

As noted in Exhibit A of the agreement, JEO's fees for services are as follows:

Fees for Basic Services, included in the Agreement, are:

Design:	\$13,200.00	Hourly
Construction Administration:	\$2,700.00	Hourly
Total:	\$15,900.00	Hourly

We propose that Michael Schultes will be JEO's Project Manager and Tyler Doane will be the Project Engineer on this project.

This agreement will be open for acceptance for 30 days unless changed by us in writing.

If you have any questions, please contact us at your convenience. JEO is excited about the opportunity to work with you on this project.

Sincerely,

Michael E. Schultes, PE  
Project Manager

Encl.

**JEO CONSULTING GROUP INC**

308 W. 3rd Street | Suite 1 | Grand Island, Nebraska 68801-5941 | p: 308.381.7428 | f: 308.381.2635  
www.jeo.com



October 27, 2016

Mike Fitzgerald  
Head of Maintenance  
Northwest Public Schools  
Grand Island, NE 68803

RE: Grand Island Northwest Public Schools  
Campus Hydraulic Modeling  
Grand Island, Nebraska  
JEO Project No. 161589

Dear Mr. Fitzgerald:

JEO Consulting Group built a hydraulic model in WaterCAD of the High School Campus water lines. The hydraulic model was built based on the campus water main layout provided on the City of Grand Island's GIS database. The model was created based on supply assumptions from the City's water main connection point and on assumed low fire hydrant flow rates since actual flow rates were too low to register on the meter.

Three different improvements were modeled. The first improvement scenario was the addition of a new 6" main from the northeast corner of the school to the existing City of Grand Island 12" water main. The second improvement scenario was the addition of a new 6" water main from the northwest corner of the school to the existing City of Grand Island 8" water main. The second scenario is independent of the first scenario. The third improvement scenario is the combination of the first and second scenarios. The water flows from these scenarios were compared to the base model.

The results from these scenarios are enclosed for your reference. It should be noted that these results represent flow increase in the water mains themselves. Fire hydrant flow data will likely be less than these flows due to the size of the fire hydrant itself. The largest noticeable benefit to adding the new water connections will be the simultaneous flow when using multiple fire hydrants.

I would be happy to meet with you to review this data in more detail at the JEO office in Grand Island. Please let me know if you would like to visit further about these results.

Sincerely,

Michael E. Schultes PE  
Project Manager

Encl.

 **Water As-Built**  
(2 found)

Project: WMP 2006-W-9  
( )  
ID: 37

Project: WMP 2005-W-8  
( )  
ID: 431

 **Water Pipe**

ID: WP1108  
Project/District: WMP 2005-W-8  
Material: Ductile Iron  
Diameter: 8"



FH #	FH Location	Base Model	Improvement 1 NE 6" Addition	Improvement 2 NW 6" Addition	Improvements 1 and 2 NE & NW 6" Additions
		Flow	Flow Increase in Mains (%)	Flow Increase in Mains (%)	Flow Increase in Mains (%)
1	NE Corner of NWHS	314	475%	23%	488%
2	NW Corner of NWHS	268	18%	253%	254%
3	SE Corner of NWHS	390	133%	43%	175%
4	SW Corner of NWHS	379	47%	103%	142%