



BAUGHMAN COMPANY, P.A.
ENGINEERING, SURVEYING & PLANNING
316/262-7271 • FAX 316/262-0149 • 315 ELLIS • WICHITA, KANSAS 67211

December 6, 2000

Vicky Huang P.E.
City of Wichita
City Hall - 7th Floor
455 N. Main Street
Wichita, KS 67202

Re: *Dewatering of Detention Basin
Ascension Lutheran Church 2nd Addition
Wichita, Kansas*

Dear Mrs. Huang,

The below calculations along with the attached data confirms that the proposed detention pond for the above referenced site meets the City of Wichita's Storm Sewer Design Criteria as stated in Section II, 2.e.

$Q = kia$

K = hydraulic conductivity (determined by GSI, see attached sheet)

I = hydraulic gradient (provided by GSI, see attached sheet)

A = Effective Wetted Area = 15,400 ft²

$Q = 1.5 \times 10^{-5} (0.03281) (25) (15,400) = 0.189 \text{ cfs}$

$V_{\text{STORAGE}} = 65,000 \text{ ft}^3$

Time = $65,000 / 0.189 = 343,915 \text{ s}$

Time = $(343,915 \text{ s}) (1 \text{ day} / 86,400 \text{ s}) = \underline{\underline{3.98 \text{ days}}}$

If you have any questions or concerns, please let me know.

Respectfully,
Baughman Company, P. A.

Scott C. Lindebak, E. I.

enclosures