

December 2, 2009

Mr. Keith Coppins
Phoenix Partnership
110 Washington Ave.
North Haven, CT 06473

**RE: Phoenix/North Haven
50 Devine Street, North Haven CT
Hydraulic Effect Analysis**

Dear Mr. Coppins:

Per a request by the Connecticut Siting Council (CSC) at their December 1, 2009 meeting, *Infinigy Engineering & Surveying (Infinigy)* is providing this hydraulic analysis and recommendation.

1. The proposed installation as detailed on the 8/6/09 drawings by Infinigy is within the FEMA-defined 100-year flood plain. The FEMA map from which this information was obtained is the most current information available (mapped 1974, certified 1980, updated 1985).
2. The impact of the proposed installation on potential hydraulic flows is negligible. The adjacent Quinnipiac River floodway is not within our compound. The river is buffered by an extensive wetland. In the event of a 100-year flood event, the immediate vicinity of the proposed compound would be flooded and act as a temporary storage area. The flood volume lost by the event would be minimal in comparison with the total flood volume. But as a means of minimizing the effect, we would recommend the carriers install their equipment on elevated platforms utilizing foundation posts, at an elevation of two feet (2-ft) above finished grade. In the instance of a building installation, this would necessitate (3) steps and a handrail to access the elevated door.
3. As for the effects on stormwater management, the area of disturbance is 4,900 sqft. The change in ground cover is from woods to gravel and approximately 200 sqft of concrete. The net effect of impervious surface is minimal and not considered to have any negative effect on stormwater absorption and groundwater recharge.

Should you have any further questions, please contact me at your convenience.

Sincerely,



Infinigy Engineering and Surveying, PLLC

John S. Stevens, PE
Principal

