To: City of Madison Plan Commission

From: Applicants: Michael and Jeanette Tierney at 5438 Lake Mendota Dr., Madison WI
Mike Houswerth, Nicolas Construction

Re: Residential House Addition, Garage Construction, Boathouse Foundation Repair

Date: October 3, 2007

Site Plan: The current house is a 1938 house with a gambrel roof on a portion of the second level, and a low pitched roof on the other portion. The house dimensions are 34.5' x 38. The first floor has a brick façade with siding on the second level. Other permanent buildings on the lot include a 20 x 26 house, and a 11x 25 boathouse. There is no garage on the property. The total square feet of the lot is 16,500 with a total 2,107 sq. ft foot print of buildings or 12.7%. The house is set back 114 feet from the water meeting the average setbacks of 10 adjacent (5 left and 5 right) houses. The 8 by 16 ft deck area is part of the existing house and will be excavated for footings and crawl space, so an erosion control permit and a plan with a silt barrier will be in place. Existing trees on the entire lot will be protected from damage, and no trees will be removed. We have been working on shoreline restoration for several years with guidance and a wave barrier permit exemption from the Wisconsin DNR. Construction will have no effect on these efforts.

House addition: We propose to replace the current second story and lower deck on an engineered floor truss platform placed over the current footprint of the house. This will improve the entire homes existing structural strength and update the second story to meet or exceed current height, insulation and other energy and electrical building standards. A 96% efficient gas furnace and high efficiency air conditioner was installed in September and a 200 amp underground electrical service is connecting in October. A whole house fan is planned in the attic as an alternative to air conditioning. We are designing the house and garage roof at angles compatible for possible (cost permitting) photovoltaic solar and solar domestic hot water. The insulated garage floor and a new concrete floor in the crawl space will have radiant heating tubes embedded to allow for a future solar mass storage space heating. No additional impervious areas will added but 3 rain gardens have been built over the last several years on this gradually sloping 250 ft deep lot. The total net area of the addition is 600 sq. ft. The number of bedrooms remains at three but two are larger with a master bath and another bath for general use and an adjacent laundry area. Anticipate using additional space for office music/TV/workout room. We will also be changing to an energy efficient front door, upgrading downstairs bathroom tile walls and window plus minor kitchen renovations. Depending on bid costs we propose to include an attached elevator on the roadside between the garage and house but may remove later. The roof's pitch at 9/12, allows for design and accommodation of solar panels for photovoltaic and hot water heating either now or in the future. The roof will be either a truss design or alternatively a 10 inch thick structurally integrated panels SIP (R50) with factory manufactured I wood trusses sandwiched in polystyrene between OSB for both house and garage roofs. .

Garage: The garage will be a two stall, single story 21' x 28' feet (588 sq. ft). This adds to the building footprint from 2107 to 2695 sq. ft. or 16.3% of the lot. The garage is 10.2 feet from the house but approximately 5 ft from the elevator shaft and will meet firewall code requirements. It will be the specified 6 feet from the east property line and 51.5 feet setback from the street side property line. We propose a roof pitch equivalent to the house pitch for solar application, with an interior stairway to the garage attic to access the rafter storage area. We propose including a sewer connection in the garage to clean cars and boats. Water connections for a utility sink would also be available on the first level. A 3 inch PVC sewer connection, water, gas would connect to the house basement via a heavily insulated connection tunnel that also provides the required elevator pit.

Materials: Exterior materials for the house and garage are EIFS siding on the house addition and portions of the garage sidewalls. Brick trim to match the house façade may be incorporated into the garage facing on the front and west sides. Alternatively, cement-fiber siding may replace the brick trim and EIFS on house or garage.

Boathouse: Boathouse foundation is currently loose-stack block foundation. We will add 8 concrete 1 ft by 6 ft support piers because the current foundation is rapidly being caved in by adjacent yard drainage. It will not increase the size and height of boathouse.