Nitsch Engineering #10399 (40B Long Ridge Road)
October 19, 2016

Guidelines for Title 5 Aggregation of Flows and Nitrogen Loading (310 CMR 15.216) (Revised 2/22/16)

Required Land Area Calculation

# of Bedrooms	# of Units	Flow	Acre Equivalency*
2	3	3 x 2 x 110 = 660 GPD	660 GPD / 660 GPD/AC = 1.00 AC
3	16	16 x 3 x 110 = 5280 GPD	5280 GPD/ 660 GPD/AC = 8.00 AC
4	1	4 x 1 x 110 = 440 GPD	440 GPD / 440 GPD/AC = 1.00 AC
			Total Area = 10.00 AC **Adjusted Area** = 9.18 AC**

*660 GPD/AC allowable for Enhanced Nitrogen Removal – Applied for proposed septic systems
**Title 5 defines "acre" as a unit of land measure equal to 40,000 square feet

9.18 acres are required to meet the equivalency standard requirement. The area proposed for roadway does not qualify for nitrogen credit.

Proposed Land Area

Total Site Area = 9.84 AC
Proposed Roadway Area = 0.57 AC (includes roadway only – driveway, houses and parking excluded)
Site Area Towards Credit = 9.26 AC

9.26 AC > 9.18 AC → Proposed Project Appears to Comply with Required Area

Additional Considerations:

1. Site Specific Mass Balance Analysis
    a. Hydrogeologic Assessment
    b. Nitrogen Analysis
    c. Groundwater Mounding Analysis of septic field
2. Is a Conservation Restriction needed on credit land?
3. From DEP Guidelines, Page 7 Under Section 6. Credit Land Qualifications
    a. If the facility is in a private well area, nonfacility credit land must be:
    b. Within the subdivision site for a residential subdivision (simplifies credit as adjacent to the individual facility lots in the subdivision);
    c. Adjacent to the facility land for a facility where the design flow is less than 2000 gpd; and
    d. Adjacent and downgradient of the impacted area of the discharge for a facility where the sesign flow is 2000 gpd or greater.