INSPECTION DETAILS

Site: O'Connor – 5761 Gardner Rd., Altamont 12009

Date: March 21, 2009

Background: According to Applicant, he bought the property around 2003. His proposed plan is to subdivide this 96.5 acre parcel into three lots, two of approximately 40 acres each and the smaller one where he resides about 20 acres. According to Town Assessor's website, the house was built in 2004. Besides the house, which has a two car attached garage, there is also a two car detached garage on the south side of the U-shaped driveway. To the rear of the residence there is another smaller building which contains a sauna. This next to a swimming pond which Applicant stated has Bass. Along Gardner near the road Applicant also has a large storage shed on the secondary property that he owns and is planning to combine with the second 40 acre lot in the subdivision.

Topography: According to Applicant, the land rises from east to west with a change in elevation about 20 to 40 feet. Review of topographical map which Applicant gave to GCAC as well as review of US Dept. of Interior Geological Survey map, Altamont Quadrangle of 1944 (photorevised 1980) shows most of the area in the 360 ft. AMSL range with the rear southernmost corner area at 380 ft. AMSL. At time of March 21st site visit GCAC noticed this corner area to be the high point of the property. To the rear of Applicant's residence there is a decrease in elevation of approximately 10 to 20 feet down to the area of the swimming pond. The Black Creek area at the rear of this lot (Lot A) is beyond this pond and is also at a lower elevation than the forward portion of the lot.

Vegetation/Trees: While the US Geological Survey map shows a small orchard extending into Lot C about 2/3 of the way back along the southeast boundary line, none was observed at the time of the site visit and none were shown on Applicant's topo map. According to Applicant trees on the property include elm, ash and maple and are about 50 feet in height. At time of site visit it was also noted that there are many birch trees west of the pond which straddles the boundary line between Lots B and C, in an area about halfway back from Gardner Road. In the area of the south west corner silver beach and maples were also noted. The trees in general were about medium size. It should be noted that the Applicant has done quite a bit of clearing the brush and small trees from appoint near the middle pond toward Gardner Road providing relatively easy access to and from this pond area.

<u>Soil</u>: Applicant states the soil is clay gravel. A review of the soil map on Sheet Number 17 in the "Soil Survey of Albany County, New York" by James H, Brown (1992) indicates that this property has nine different types of soil.

Lot A – On the front (Gardner Road) side of Lot A the soil is primarily BuB back to 50 to 350 feet east of the Black Creek, at which point it changes to RhA. Along the D & H Railroad there two small fingers of other soil that jut into the fore noted BuB area. The first is about 330 ft. from Gardner Road and along the railroad boundary for about100 ft. and juts into the applicant's property about 50 feet. The second is about 750 feet from Gardner Road, is about 200 feet wide along the boundary and also juts into the applicant's property about 50 feet. The first of these two small areas has RhA soil and the second has VaC. There is also a small area of Wo soil at the north most corner east of the Black Creek.

Lot B – On the front portion of this lot is a triangular area of BuB soil adjacent to Lot A which runs about 330 feet along Gardner Road and runs back about 600 feet toward the west from Gardner Road. A small portion of Lot B to the west is RhA soil as is most of the remaining front

(east) portion of this lot. About 1400 to 1500 feet back from the Road. There is a small area of Wo soil at Lot B's northern most corner west of Black Creek. To the south of this Wo soil is a fairly large (about 800 ft. by 300 to 600 feet) segment of SuB soil. Near the middle of this SuB area, the soil map indicates there is a very stony spot. To the west of that area is a small area of RhA soil at the upper western point of this irregularly shaped lot. Below (to the south) of this is a finger about 250ft. wide at its widest point of NuC soil which extends to the south east almost to the southern boundary line of Lot B. From that point, about to the lower western point of Lot B extending for the remaining 1,050 feet of its southern boundary this triangular segment has NuB soil.

The area on which small lots #5707 and #5701 Gardner Road are primarily on BuB soil. About 150 feet west of these small lots, the Soil Map indicates there is a wet spot.

Lot C – The front portion of this lot, has two areas that arch in toward the center starting at Gardner Road to a point 1,450 back form the road along the south boundary; and another which goes back 1,500 feet from the road along the northern boundary of this lot. The former has primarily ChC soil with a small area of RhA near Gardner Road and the latter northern area has RhA. The remaining north west portion of Lot C, comprising about 50 % of the lot, has NuB soil. To the south of that segment is an area of RhB about 250 to 350 feet wide and about 700 feet long. To the east of this is a

triangular finger of RhA soil which extending about 450 feet in from the south east boundary line along which it is about 250 wide. To the west the RhB portion is a strip about 100 to 150 feet near the south west corner of Lot C where there is NuC soil. This south west corner itself has a small 50 feet wide wedge of HuB soil.

A brief description of these soils and some of their limitations follows:

BuB – Burdett silt loam, 3 to 8 percent slopes - This gently sloping soil is very deep and somewhat poorly drained. The seasonal high water table in this Burdett soil is perched on the clayey subsoil at a depth of ½ foot to 1 ½ feet from December to May in most years. Permeability is moderate in the surface and subsurface layers and slow in the subsoil and substratum. Available water capacity is high. Surface runoff is medium. County soil survey notes that most of the acreage of this soil is used as hayland, pasture, or woodland. The main limitation of this soil on sites for dwellings with basements is the seasonal high water table. Installing foundation drains and applying protective coatings to basement walls help prevent wet basements. Land grading and properly placed diversions will remove surface water. The main limitations for local roads and streets on this soil are the seasonal high water table and frost-action potential. This soil is soft when wet and causes the pavement to crack under heavy traffic. Constructing roads on raised fill material will reduce wetness and prevent the road damage that the seasonal high water table causes. Providing a coarse textured subgrade or base material and providing surface or subsurface drainage will reduce the frost-action potential and enhance soil strength. The main limitations affecting the use of this soil as a site for septic tank absorption fields are the seasonal high water table and the slow percolation in the subsoil. A specially designed septic tank absorption field or an alternative system will properly filter effluent. An alternate system will include a drainage system around the filter field to lower the water table, diversion ditches to intercept water from the higher areas, and an enlarged trench below the distribution line to improve percolation.

ChC - Chenango gravelly silt loam, loamy substratum, rolling - This soil is very deep and well drained to somewhat excessively drained. The seasonal high water table is at a depth of more than 5 feet. Depth to bedrock is more than 60 inches. Permeability is moderate or moderately rapid in the subsoil and moderately rapid in the substratum. Available water capacity is moderate. Surface runoff is medium. This soil has moderate limitations on sites for dwellings with basements because of slope. The main limitations for local roads and streets are the frost-action potential and the slope. Adapting road design to the natural slope or land shaping and grading help overcome the slope limitation. The major limitations affecting the use of this soil as a site for septic absorption fields are the slow percolation in the subsoil and the slope. Installing distribution lines on the contour and

using drop boxes or other structures to promote even distribution of the effluent will overcome the slope limitation. Enlarging the trenches below the distribution lines will increase percolation.

HuB – Hudson silt loam, 3 to 8 percent slopes – This gently slopping soil is very deep and moderately well drained. The seasonal high water table in this soil is perched above the clayey subsoil at a depth of 1 ½ to 2 feet between November and April. Depth to bedrock is more than 60 inches. Permeability is moderate or moderately slow in the surface and subsurface layers and slow or very slow below. The available water capacity is high. The main limitation of this soil on sites for dwellings with basements is the seasonal high water table. Landscaping around the building and using diversion ditches above it help remove excess surface water. Foundation drains and protective coatings on basement walls help prevent wet basements. The main limitations of this soil for local roads and streets are the frost-action potential and low strength. Providing a coarse textured subgrade or base material to the frost depth and adequate drainage in areas of the wetter included soils reduce frost action and improve soil strength. The main limitations affecting the use of this soil as a site for septic tank absorption fields are the season high water table and slow percolation. A drainage system around the filter field and interceptor drains to divert water from higher areas will lower the water table. Enlarging the trench below the distribution lines will improve the percolation of effluent.

NuB – Nunda silt loam, 3 to 8 percent slopes - This gently sloping soil is very deep and moderately well drained. The seasonal high water table is at a depth of 18 to 24 inches from March to May. Depth to bedrock is more than 60 inches. Permeability is moderate in the surface layer and in the upper part of the subsoil and slow to very slow below. The available water capacity is high, and runoff is medium. The main limitation of this soil on sites for dwellings with basements is the seasonal high water table. Foundation drains and interceptor drains upslope from construction sites divert runoff and lower the water table. The main limitation of this soil for local roads and streets is the frost-action potential. Constructing roads on coarse textured fill material provides drainage away from the roadway. The main limitation affecting the use of this soil as a site for septic tank absorption fields are the seasonal high water table and the slow percolation in the subsoil and substratum. Installing a drainage system around the absorption field and diversions to intercept runoff from the higher areas will reduce wetness. Enlarging the absorption field or the trench below the distribution lines will improve percolation.

NuC – Nunda silt loam, 8 to 15 percent slopes - This strongly sloping soil is very deep and moderately well drained. The seasonal high water table is at a depth of 18 to 24 inches from March to May. Depth to bedrock is more than 60 inches. Permeability is moderate in the surface layer and in the upper part of the subsoil and slow or very slow below. The available water capacity is high, and runoff is medium or rapid. The main limitation of this

soil on sites for dwellings with basements is the seasonal high water table. Foundation drains and interceptor drains upslope from construction sites divert runoff and reduce wetness. Erosion is a hazard during construction. Maintaining the vegetative cover adjacent to the site and diverting runoff from the higher areas help control erosion. The main limitation of this soil for local roads and streets is the frost-action potential. Constructing roads on coarse textured fill material provides drainage away from the roadways. Erosion is a hazard if these sloping soils are left unprotected. The main limitations affecting the use of this soil as a site for septic tank absorption fields are the seasonal high water table and the slow percolation in the subsoil and substratum. A drainage system around the absorption field and diversions to intercept runoff from the higher areas will reduce wetness. Enlarging the absorption field or the trench below the distribution lines will improve percolation.

RhA – Rhinebeck silty clay loam, 0 to 3 percent slopes. -This nearly level soil is very deep and somewhat poorly drained. The seasonal high water table in this Rhinebeck soil is at a depth of ½ foot to 1 ½ feet. Depth to bedrock is more than 60 inches. Permeability is moderately slow in the surface and subsurface layers and slow below. The available water capacity is moderate, and runoff is slow. The county soil survey noted that most of the acreage is used as cropland, hayland, or

pasture. The main limitation of this soil on sites for dwellings with basements is the seasonal high water table. Foundation drains and interceptor drains upslope from construction sites will divert runoff and help prevent wet basements. The main limitations of this soil for local roads and streets are the seasonal high water table, the low strength, and the frost-action potential. Constructing roads on raised, coarse textured fill material will reduce the frost-action potential and improve soil strength. Raising the level of fill material will reduce wetness. The main limitations affecting the use of this soil as a site for septic tank absorption fields are the seasonal high water table and slow percolation. Installing a drainage system around the absorption field and intercepting runoff from the higher areas will reduce wetness. Enlarging the absorption field or the trenches below the distribution lines will improve percolation. This soil, especially when wet, has low bearing capacity. Excavations and cutbacks will cave or slough.

RhB – Rhinebeck silty clay loam, 3 to 8 percent slopes. – This gently sloping soil is very deep and somewhat poorly drained. The seasonal high water table in this Rhinebeck soil is at a depth of 6 to 18 inches from January to May. Depth to bedrock is more than 60 inches. The seasonal high water table limits the rooting depth. Permeability is moderately slow in

the surface layer and subsurface layer and slow below. The available water capacity is moderate, and runoff is slow. The County survey notes that most of the acreage is used as cropland, hayland, or pasture. The main limitation of this soil on sites for dwellings with basements is the seasonal high water table. Foundation drains and interceptor drains upslope from construction sites will divert runoff and help prevent wet basements. The main limitations of this soil for local roads and streets are the seasonal high water table, low strength, and the frost-action potential. Constructing roads on raised, coarse textured fill material will reduce the frost-action potential and improve soil strength. Raising the level of fill material will reduce wetness. The main limitations affecting the use of this soil as a site for septic tank absorption fields are the seasonal high water table and slow percolation. Installing a drainage system around the absorption field and intercepting runoff from the higher areas will reduce wetness. Enlarging the absorption field or the trenches below the distribution lines will improve percolation. This soil has a low bearing capacity, especially when it is wet. Excavations and cutbacks will cave or slough.

SuB - Sudbury fine sandy loam, 3 to 8 percent slopes – This gently sloping soil is very deep and moderately well drained. The seasonal high water table in this soil is at a depth of 1 ½ to 3 feet from December to April. Depth to bedrock is more than 60 inches. Permeability is moderately rapid in the surface layer and the upper part of the subsoil and moderate to rapid below. The available water capacity is moderate, and runoff is medium. The main limitation of this soil on sites for dwellings with basements is the seasonal high water table. Foundation drains and interceptor drains upslope from construction sites will divert runoff and seepage and reduce wetness. Adequately sealing the foundation and grading to remove runoff will also reduce wetness. In excavated areas cutbacks are subject to sloughing and caving. The main limitations of this soil on sites for local roads and streets are the seasonal high water table and the frost-action potential. Constructing roads on raised fill with coarse textured subgrade will reduce wetness and the frost-action potential. In excavated areas cutbacks are subject to caving and sloughing. The main limitations affecting the use of this soil as a site for septic tank absorption fields are the seasonal high water table and poor filter. The soil is a poor filter of effluent. Consequently, ground water contamination is a hazard. However, a specially designed septic tank absorption field or other alternative system will properly filter effluent.

Wo - Wayland silt loam. This nearly level soil is very deep and poorly drained. It is in depressions on flood plains along major streams. Slopes range from 0 to 3 percent. The seasonal high water table in this soil is at a depth of less than ½ foot from November to June. The soil is subject to frequent flooding for brief periods from November to June. Depth to bedrock is more than 60 inches. The available water capacity is high, and runoff is very slow or ponded. The main

limitations of this soil on sites for dwellings with basements are flooding and the seasonal high water table. Alternate sites on the nearby higher soils will avoid the risk of water damage and are better suited to this use. The main limitations for local roads and streets are flooding, low strength, and seasonal high water table. Constructing roads on course textured fill material helps to prevent road damage. Building roads around the flood plain will reduce construction costs. The main limitations affecting the use of this soil as a site for septic tank absorption fields are flooding, slow permeability, and the seasonal high water table. In some areas flooding from adjacent streams will gouge out the distribution lines. Flooding and the seasonal high water table will cause most systems on this soil to malfunction. Alternate sites on soils that are higher on the landscape and that are not subject to flooding are better suited to this use.

Drainage/Wetlands: Applicant claims there are no wetlands and that drainage is to the Black Creek. At time of March 21st site visit, GCAC observed a large amount standing water in the road that leads to the back part of Lot C. This was in an area in the back half of that lot. Not too far from that wet area there is a bowl area about 10+ feet deep which appeared dry. The contrast in these two areas may be due to the road being on a small area, along the south side of that lot, containing RhA soil which is nearly level, somewhat poorly drained and very deep with slow run off while the bowl is an area containing NuB soil which is moderately well drained. There are two ponds on the property – one just east of the midpoint on the line that separates Lots B and C, and one to the rear of the residence on Lot A. A drainage watercourse enters Lot C near the southwest corner and runs in an easterly direction. There is also a little feeder stream running across the front portion of Lots C and B. The Black Creek runs across the front portion of the property entering from under the D & H railway tracks from the north, cuts across the north east corner of the property and turns to the east and continues on its course under Gardner Road. Topo map also shows another feeder stream entering the property near the upper west corner and then travelling east to the Creek.

Septic/Wells: Applicant has septic system with large raised absorption field to the north of his residence. He also has well. Plan is to have septic system and well water for the proposed new Lots.

Visual Impact: The amount of visual impact created by developing the two new lots would be minimal since the Applicant feels that you most likely would not be able to see the houses from the Road. With the amount of wooded area on Lots B and C, the impact from the Helderburg Escarpment would likewise be minimal provided tree cutting is minimized.

Endangered species: None known to the Applicant. No Indiana bats or Karner Blue as far as he knows. He did note that they have deer and turkeys. None observed by GCAC at time of March 21st site visit.

Historical Considerations: None known to the Applicant. According to Applicant there are old stone walls from when the property was a farm. Nothing of historical significance noted by GCAC at time of site visit.

Submitted By:_____
John G. Wemple, Jr. - Chairperson

To: Guilderland Planning Board
From: Guilderland Conservation Advisory Council
Date: March 31, 2009
Re.: Subdivision of O'Connor, 5761 Gardner Rd., Altamont, NY 12009

APPLICATION

Applicants: Darren O'Connor, 5761 Gardner Rd., Altamont, NY 12009

Proposed Subdivision: A three-lot subdivision of 96.5 acres.

Location: Property is about 2 miles southeast of the Altamont Village line. It is east of the point where the D&H Railroad crosses Gardner Road

Zoning: RA-3.

SITE INSPECTION SUMMARY

Site Inspection Date: March 21, 2009

Meeting Attendees: (March 16, 2009) Applicant Darren O'Connor; GCAC members Stephen Albert, David Heller, Herbert Hennings, Gordon McClelland, Stuart Reese, Steve Wickham and John Wemple, Chair.

Inspected by: Applicant Darren O'Connor; GCAC members Stephen Albert, Gordon McClelland, Stuart Reese, Steve Wickham and John Wemple, Chair.

<u>Conclusions</u>: Due to the nature of the soils, applicant will need to be selective in where he decides to locate the residences on Lots B and C. He indicated that his plan would be to locate the residences to the rear of the pond. On Lot B, he did also note another location a little further to the east. Either of these on Lot B would be in an area where the soil is RhA which may prove to be damp due to that type of soil being somewhat poorly drained with limitations requiring appropriate drainage. Further west the soil is NuC and NuB as it is on Lot C. Both of these Nu soils are moderately well drained. Because of the high water table of all three of these soils, added precautions, as noted under the soil section, will need to be taken if proposed dwellings have basement in order to prevent dampness. On NuC soil, the slope also must be taken into consideration. There are two roads leading back from Gardner Road into Lot B. One of these roads we followed on our way out from inspecting Lots B and C. The other one is slightly further to the north but most likely will not be utilized since it crosses the Creek. Lot C also has an access road which goes pretty straight towards the rear of that Lot. Both roads most likely will need to be improved with appropriate fill due to the limitations of the soil. It is felt that the proper improvement of these roads should minimize the impact to the feeder stream and of the seasonal runoff in the lower lying part of the property.

Since the proposed new lots are so large, being about 40 acres each, GCAC does not envision a major impact provided care is taken in the selection of the actual sites for development and measures are taken to protect the Black Creek.

Submitted by:_____

John G. Wemple, Jr. - Chairperson