To: Guilderland Planning Board
From: Guilderland Conservation Advisory Council
Date: September 30, 2010
Re.: Spawn Farm, 2845 W. Old State Rd., Schenectady, NY 12303

APPLICATION

Applicant(s): Neil Spawn, 121 Schoharie Plank Rd. West, Altamont, NY 12009

Proposed Subdivision: A proposed four lot subdivision of 26.8 acres.

Location: Near the north east corner of W. Old State and Fuller Station Roads approximately 0.9 mile west of Carman Road (Route 146).

Zoning: R40. (Minimum area – 40,000 sq.ft.; bldg. line 200 ft; set backs - front 35 ft., side 35 ft., rear 50 ft.)

Site Inspection Summary:

Site Inspection Dates: September 24 and 25, 2010

Meeting Attendees: (September 20, 2010) Owner Neil Spawn, Presenter Mark Blackstone; GCAC Members Stephen Albert, David Heller, Herbert Hennings, Gordon McClelland, Stuart Reese, Steven Wickham and John Wemple (Chair).

Inspected by: September 24 - Owner Neil Spawn and GCAC members Albert, McClelland and Reese. September 25 – Owner Neil Spawn and GCAC members Heller, Wickham and Wemple.

Conclusions:

If it does turn out to be accurate that the wetland area on lot 3 is State DEC Wetlands, consideration will need to be given for any required wetland setbacks in determining the location of the building envelope for the residence on that lot. As to the disturbance of Federal Wetlands in order to construct driveways for lots 1, 2 and 3, GCAC used the site drawing and measured the probable areas that may be disturbed by crossing wetland fingers on these lots and determined that if the width of each disturbance is 50 feet for raised driveways and culverts that the total amount of disturbance would be approximately 4,313 sq.ft. even if the driveways necessitated disturbing a second wetland finger on both lot 2 and lot 3. This in turn would be less than $1/10^{th}$ acre (4,356 sq.ft.). It should be noted that the wetland flags for these fingers on this front portion of the property were lacking and therefore the site drawing showing the location of the wetlands was relied upon in making a determination of the amount of wetlands which might be disturbed by the driveways. As part of the plan, two of the lots may have a shared driveway in order to reduce the number of curb cuts and to utilize the most appropriate location due to concern over line of sight distance for access and especially for egress. This may entail a significant buildup of the roadbeds of the driveways due to the hill at that point on W. Old State Rd. This concern needs to be worked out with the assistance and advice of the highway department. Another safety concern is the location of the residence on lot 3. If the builder decides to locate the residence at a point beyond 400 feet from the highway, he should be advised to check with the fire department related to the need of another hydrant.

An inquiry to the Town Assessor's website indicates that the house was built in 1838. Since it appears to be in good shape and is part of the history of Guilderland by the very nature of being over 170 years old, GCAC feels that it should be protected by the Town against any attempt at demolition of this value asset to Town life. Planning Board should make a referral to the Town Historian regarding these old buildings.

GCAC does not oppose this proposed subdivision provided tree cutting is kept to a minimum, areas of wetland disturbance are kept within allowable standards related to the proposed driveways, careful attention is made related to the location of curb cuts to provide for the safety of those using the driveways, and that State DEC be contacted to resolve the question of wetlands and wetland setbacks especially for lot 3.

Relying on the accuracy of the wetland boundaries as shown on the site drawing, and using a 50 foot wetland buffer, it was found that there does appear to be sufficient square footage for building envelopes on all three new lots. Consideration was given to the possible reconfiguration of lots 1 and 2 in order to increase the size of the buildable areas of these lots but due to the hook at the end of the one wetland finger, sufficient space was not available. On lot 3, a building site could be about 325 feet back from the Road which could accommodate a large house and garage but if the potential buyer for this lot is still desirous of a larger building area with more privacy, it would be advantageous for him if the west boundary line on the back half of lot 3 were moved fifty to one hundred feet west. This would allow him to more fully utilize a site where there is CoB soil which is especially suited for residential use. On lot 3, a combination of 50' setbacks for Federal wetlands as well as 100' DEC setbacks were used for the rear portion of the lot since it does appear that State DEC regulations would apply. As noted in the Inspection portion of this report, there does appear to be a watercourse in the woodland on lot 3 which appears to met up with a stream which finds its way to the Watervliet Reservoir.

Submitted by: _____

John G. Wemple, Jr. - Chair

INSPECTION DETAILS

Applicant(s): **Neil Spawn**
Address: **2845 W. Old State Rd.,**
Schenectady, NY 12303

Background: According to owner, he who grew up on this 200 year old farm and lived in the corner house, which currently is not part of the property. He further states the old house at 2845 West Old State Road, which is now vacant, was built in 1819 and had an addition to it in 1834. His plan is to have the farm subdivided into four lots which is much less than a previous plan for nine lots. He also noted that one developer was looking to have twelve lots. Although it is not shown on the site drawing, it was noted at the presentation that there is another farm building to the left of the other buildings which is to be removed. The way the plan is now, access to all four lots would be from W. Old State Rd. since according to Owner, NYS DEC would not permit access from the Fuller Station Road portion of the property. Development of the lots would be the responsibility of the new owners according to current owner. For the sake of identifying the four lots in this report, they will be referred to as lots 1, 2, 3 and 4 with lot 1 being the furthest west and lot 4 being the lot with the existing house and barn.

Topography: According to presenter, property is very flat with certain areas that have higher elevation as on the west side and toward the rear of the center portion of the property. He further noted there is a significant hill behind the barn. It was also noted that the elevation at the rear is eight to ten feet although the upland area within the wetland forest is difficult to get to. A review of contour lines on US Dept. of Interior Geological Survey map shows the entire property to be within a ten foot variance of 300 ft. AMSL along the rear northern portion and approximately 310 ft. AMSL at the east corner as well as a strip at that elevation along West Old State Road where there is a hill west of the existing residence. At time of site visit it was noted that the fields have a rolling terrain with the highest point being along West Old State Road near the midpoint between the barn and the west boundary with the neighbor at 2811 W. Old State Rd. The site plan drawing shows a wetland finger near to and parallel to W. Old State Rd. that extends across the lots 1, 2 and 3. This low area is near the base of this hill. It was also noted that in entering the wooded area at the rear of lot 1 there was a slight drop in elevation to an area containing fern. In walking through the woods at the rear of the property it was noted that the terrain is similar to that of the fields with the woods also having a rolling contour and small hills. Either near to or possibly beyond the midpoint of the rear (north) boundary there was a low area with a noticeable drop in elevation of about ten feet. The Wetland Delineation Survey Notes identifies an upland area along the eastern property boundary which is marked with U and UU flags. Flags UU7 and 8 where noted at site visit. A hill was also noted in the forest a short distance from the east boundary lot #28 (6876 Fuller Station Rd.).

Vegetation/Trees: The presenter noted that the property has woods and hay fields. He stated trees include pine, maples, birch and hardwoods. The Wetland Delineation Survey Notes identifies the following on the upland islands along the eastern property boundary – beech, red oak, hemlock, white pine, witch hazel and high bush blueberry and makes note that hemlock dominates the upland island in the eastern corner of the property. Shortly after entering the wooded area beyond the midpoint of lot 1, it was observed that the fern at that particular spot was rather huge. There appeared to be an abundance of maple trees in the forest at the rear of lots 1 and 2. While most of these trees were tall they were relatively small to medium size in diameter. There were also many large pine trees as well some birch and oak observed especially

along the outside border of the forest. On the fields there are an abundance of milk weeds. To the east of the barn in what appeared to be a wetland area there are cattails. To the south of these and nearer to the Road there are grapes which according to the owner are apparently are quite productive.

Soil: A review of Sheet Number 11 of soil survey data from "Soil Survey of Albany County, New York" -1992 – James H. Brown indicates there are ten different soils on the property. The front portion of lot 1 has a strip of CoB soil extending 100+feet back from the Road. This is followed by an equal width of ScA soil and then another strip of about the same size of ElB soil. Br soil covers a large area of the north portion of this lot extending about 275 feet into the upper section of the lot with a very small wedge of ClB soil at the northwest corner; a strip of Sh soil along the west side and a wedge of ScA soil along the east side of this back portion. The CoB soil at the front portion of lot 1 extends across about 2/3 of the front of lot 2 and then turns toward the road. To the rear of this CoB soil which extends back about 125 ft. at its further most point from the Road, is a large area of ScA soil which goes back to within 200 feet of the rear lot boundary. About 275 feet back from the Road there is a small wedge of ElB soil which extends over from lot 1. On the east side there is a wedge of CoB soil extending out about 150 feet from that boarder into the back half of the lot. The west side has a triangle of Br and ElB soils which extend about 125 feet into the lot of which ElB makes up a 75' x 200' triangle at the north west corner of the lot. Fx soil covers much of the rear 200 feet of the lot. ScA soil covers most of the southwest portion of lot 3 with a segment of CoB jutting into it along the southeast side 100' and 50' along its southeast border with lot 4. Beyond this ScA soil there is an area of CoB soil which is about 100+ to 200 feet wide and goes back another 400 feet to an small area (about 75' x 75") of ScA soil along the northwest side of the lot. To the east of the CoB is a large strip (about 85' to 185 ' wide by 600' long that extends to about 50 ft. from the rear north east border. Along this portion of the border is a 50' to 100' by 110' strip of Fx soil. The east portion of lot 3 has a very large area of Ad soil (400' at its widest point) on the north side and Gr soil (450' wide at its widest point) on the south side. At the east corner there is a 400' x 350' x 200' triangle of EnA soil. The existing lot 4 has CoB soil on much of the south west portion of the lot with a small triangular area of CoB at the south west corner. To the east of the CoB soil is a 125' to 200' strip of EnA and at the north east corner there is a triangle of Gr soil that extends about 200 feet into the lot.

Ad Adrian muck. This nearly level soil is very deep and very poorly drained. It is in depressions and bogs on uplands and in concave basins on lowland plains. Seasonal high water is at a depth of less than ½ foot from October to June in most years. Depth to bedrock is more than 60 inches. Limitations as a site for dwellings are subsidence and ponding. Main limitations of this soil for local roads and streets are ponding and subsidence. Diverting roads around areas will avoid the problems associated with this soil.

Br Birdsall mucky silt loam, has a high water table at a depth of less than 1 foot most of the year. Depth to bedrock is more than 60 inches. Limitations for local roads are similar to Ra as noted above. Installing drainage or constructing the road on raised fill will reduce wetness. Also, constructing roads on coarse textured subgrade or base material reinforces the road surface and reduces the frost-action potential.

ClB Claverack loamy fine sand, 3 to 8 percent slopes – This gently sloping soil is very deep and

moderately well drained. The seasonal high water table is this soil perched above varved silts and clay, is at a depth of 1 ½ to 2 feet between November and May. Depth to bedrock is more than 60 inches. Permeability is rapid in the solum and slow or very slow in the substratum. The available water capacity is moderate, and surface runoff is slow. The main limitation of this soil on sites for dwellings with basements is the seasonal high water table. Installing foundation drains on top of varved silt and clay lowers the seasonal high water table. Protective coatings on basement walls also help prevent wet basements. The main limitations of this soil for local roads and streets are a moderate frost-action potential and the seasonal high water table. Constructing roads on raised fill composed of coarse textured base material will lower the seasonal high water table and reduce frost action. The main limitations of this soil for septic tank absorption fields are the seasonal high water table, a poor filtering capacity in the subsoil, and slow percolation in the substratum. Consequently, ground-water contamination is a hazard. A specially designed septic tank absorption field or an alternative system will work on this soil.

CoB Colonie loamy fine sand, 3 to 8 percent slope. This gently sloping soil is very deep and well drained to somewhat excessively drained. Typically, the surface layer is dark brown loamy fine sand about 7 inches thick. The subsoil is 61 inches thick. The seasonal high water table in this Colonie soil is at a depth of more than 6 feet, but in some years it fluctuates to a depth of 3 ½ feet for very brief periods in early spring. Depth to bedrock is more than 60 inches. Permeability is moderately rapid or rapid. The available water capacity is low. This soil has no limitations on sites for dwellings and for local roads and streets. Droughtiness is a problem in establishing and maintaining lawns and scrubs. The main limitation affecting the use of this soil as a site for septic tank absorption fields is a poor filtering capacity. Permeability in this soil is moderately rapid or rapid, and the soil is a poor filter of effluent. Consequently, ground-water contamination is a hazard. A specially designed septic tank absorption field or an alternative system will properly filter the effluent. Other soils that have a moderate permeability rate are better suited to this use.

CoC Colonie loamy fine sand, rolling This rolling soil is very deep and well drained to somewhat excessively drained. The seasonal high water table is at a depth of more than six feet, but may fluctuate to within 3 ½ feet of the surface for brief periods in early spring. Depth to bedrock is more than 60 inches. The main limitation for dwellings with basements is the excessive slope on rolling topography. Designing dwellings to conform to the natural slope or landscaping helps overcome this limitation. Main limitation for local roads and streets is the slope. Soil has a poor filtering capacity.

ElB Elmridge fine sandy loam, 3 to 8 percent slopes – This soil is very deep and moderately well drained. It is on glacial lake plains. The substratum extends to a depth of 60 inches or more. The seasonal high water table is at a depth of 1 ½ feet to 3 feet perched above the clayey substratum between November and May. Depth to bedrock is more than 60 inches. The main limitation on sites for dwellings with basements is the seasonal high water table. Foundation drains installed above the slowly permeable substratum will lower the seasonal high water table. Protective coatings on basement walls will prevent wet basements. The main limitations of this soil for local roads and streets are low strength and frost-action potential. The main limitations affecting use of this soil as a site for septic tank absorption fields are the seasonal high water table and slow percolation in the substratum. A specially designed septic tank absorption field or an alternative system will adequately filter effluent. Installing drainage around the filter field and

diversions to intercept water from the high areas will reduce wetness. Enlarging the trench below the distribution lines will improve percolation.

EnA Elnora loamy fine sand, 0 to 3 percent slopes This nearly level soil is very deep and moderately well drained. Seasonal high water table is at a depth of 1 ½ to 2 feet from February to May. Depth to bedrock is more than 60 inches. The main limitation of this soil on sites for dwellings with basements is the seasonal high water table. Installing foundation drains, applying protective coatings to basement walls, and diverting surface water away from dwellings help prevent wet basements. Main limitations for local roads and streets are moderate frost action potential and seasonal high water table. Adequate drainage of surface water and constructing the road on a course textured subgrade or base material help overcome these limitations. The main limitations of this soil on sites for septic tank absorption fields are the seasonal high water table and a poor filtering capacity. The soil is rapidly permeable and a poor filtering capacity. This soil is rapidly permeable and is a poor filter for effluent. Consequently, ground-water contamination is a hazard. The author notes that a specially designed septic tank absorption field or an alternative system will adequately filter the effluent. Other less sandy soils in the higher landscape positions are better suited to this use.

Fx Fluvaquents-Udifluvents complex, frequently flooded This soil unit consists of very deep, nearly level, very poorly drained to moderately well drained loamy soils formed in recent alluvial deposits on flood plains. These soils are subject to frequent flooding and are commonly wet. Bedrock is generally at a depth of more than 5 feet. Permeability, the available water capacity, organic matter content, and soil reaction vary with the composition of alluvium. County soil survey notes that most of the acreage is used as woodland or pasture or is idle. These soils are not suited to urban uses because of periodic flooding and prolonged wetness.

Gr This nearly level soil is very deep and poorly drained to very poorly drained. High water table is at a depth less than one foot from November to June. Bedrock is more than 60 inches deep. Main limitations on sites for dwellings with basements are the seasonal high water table and ponding. Similar limitations for local roads and streets due to high water table and ponding. Installing drainage will lower the water table near road sites. Constructing roads on raised fill material will also reduce wetness.
ScA Scio silt loam, 0 to 3 percent slopes. This nearly level soil is very deep and moderately well drained. Seasonal high water level is at a depth of 1 ½ to 2 feet from March to May. Depth to bedrock is more than 60 inches. Permeability is moderate in the surface layer and subsoil. The available water capacity is very high, and runoff is slow. Main limitation for dwellings with basements is the seasonal high water table. Installing foundation drains with adequate outlets will lower the water table. Erosion is a hazard during construction. Excavations and cutbacks cave or slough easily. Main limitation for local roads and streets is the frost action potential. Constructing roads with coarse textured fill material and installing surface and subsurface drainage reduces the frost-action potential. Cutbacks cave or slough. The main limitation affecting the use of this soil as a site for septic tank absorption fields is the seasonal high water table. Installing drainage around the field and intercepting runoff from the higher areas will reduce wetness.

Sh Shakerfine sandy loam - This nearly level soil is very deep and somewhat poorly drained to poorly drained. The seasonal high water table is at a depth of less than 1 ½ feet from November to May. Depth to bedrock is more than 60 inches. Permeability is moderately rapid in the surface

layer and subsoil and slow or very slow in the substratum. The available water capacity is high, and runoff is slow. The main limitation of this soil for dwellings with basements is the seasonal high water table. Properly designed and installed foundation drains with adequate outlets will lower the water table. The soil is best suited to dwellings without basements. In many areas of this soil suitable outlets for drainage systems are not available. The main limitations for local roads and streets are the seasonal high water table, the frost-action potential, and the low strength of the soil. Constructing roads on raised fill of course textured material will overcome these limitations. 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. Installing drainage around the field and intercepting runoff from the higher areas will reduce wetness. Enlarging the field or the trenches below the distribution lines will improve percolation.

Drainage/Wetlands: It should be noted that the site visits were made during a very dry spell. Based on data from website http://www.weather.com/weather/monthly/USNY0603 showing the precipitation for Guilderland it was determined that as of September 24th rainfall for the month was 2.31 inches below normal and that August had also been 1.73 inches below normal. Normal precipitation for this August/September period should have been 6.33 inches compared to the actual 2.23 inches for a total deficit of 4.04 inches. When GCAC walked the wetland area, the soil was relatively dry with very little noticeable wet areas. We did come across a minimal number of damp areas and one small notably mucky area in the woods. GCAC did walk a considerable large portion of the wetland forest and concluded that it was not suited for use as sites for building residential structures. The site drawing shows a very high percentage of the property is wetlands. Owner noted that there is a ditch along the southeast boundary of the property. Presenter initially said there are no watercourses running through the property but did agree that those shown on the soil survey map could be as shown – running through the east wetlands to the north and then toward the northwest in the direction of Fuller Station Road. Presenter noted there was no water running on April 1st, but that there was ponding – notably in low area crossing the front of lots 1, 2 and 3 on which he noted there were ducks. US Dept. of the Interior Geological Survey map (Voorheesville Quadrangle of 1954 photorevised 1980) shows a watercourse from the Fuller Station Rd. area to the Watervliet Reservoir which is within 2,000 ft. distance. Presenter noted the wetlands are Federal Wetlands which would limit the amount of disturbance to 1/10th of an acre (43,560 sq.ft.). He felt that only disturbance would be for driveways and that since this would be less than 1/10th acre Army Corps of Engineers approval should not take much time. While much of the wetlands are apparently Federal wetlands, it should be noted that Wetland Delineation Survey Notes of April 19, 2010, by Copeland Environmental, LLC, it states "… that the wetland line along the northern property line should be shaded as NYS DEC wetland V-46. The DEC should be contacted to confirm this. …". The area so noted on the wetlands map indicates this large DEC wetland area includes a triangular shaped area of the property at the east corner encompassing an estimated area of about 6 + acres which is mostly on lot 3 with a small portion on the east corner of lot 4. At the front of the property, there is a slight drop in elevation at the south east corner of lot 4 which would indicate a natural drainage in that direction of that portion of the lot. The owner pointed out a drainage ditch dug across the eastern part of the property, ending at the southeast corner on W. Old State Rd. but GCAC could not find signs of a culvert across the road at that point, although the owner thought there may have been one.

Septic/Wells: Plan is to hook up to Town water and sewer.

Visual Impact: Presenter does not envision much, if any, negative visual impact and noted that neighbor at corner was elated that there would only be two new houses near him. Since the area has been built up with numerous houses, the visual impact should be minimal to that part of the community.

Endangered Species: Presenter claims no Karner Blues and no Indiana bats. None were observed at time of sight visit. One Monarch butterfly was observed at that time as well as a hole identified by the owner as a woodchuck hole.

Historical Considerations: Other than the old house and barn, no other things of historical significance such as old cemeteries claimed at time of September 20th presentation. Nothing other observed at time of site visit.

Submitted by: _____
John G. Wemple, Jr. - Chair