To: Guilderland Planning Board

From: Guilderland Conservation Advisory Council

Date: August 19, 2016

Re.: Beliveau Properties, W. Old State Road

APPLICATION

Applicant(s): Omer Beliveau et al

Proposal: A proposed subdivision and lot line adjustments of 112.77 acres.

Location: North portion of the Town on the south side of the Guilderland /Schenectady line through which the Normanskill runs. Land is primarily on the north side of West Old State Road. Result of Google entry shows that the property is approximately 0.6 mile west of the intersection of West Old State Road and Route 158.

Zoning: Listed as A-5, but zoning map shows property is in the R-3 zone..

Site Inspection Summary:

Site Inspection Date: August 13, 2016

Meeting Attendees: August 8, 2016 - Applicants Pierre and Omer Beliveau, Presenter Stephen Walrath; GCAC members Stephen Albert, Martha Harausz. Martin Gnacik, Gordon McClelland, Stuart Reese and John Wemple (Chair).

Inspected by: Applicants Pierre (Pete) and Omer Beliveau; GCAC members Stephen Albert, Martha Harausz. Gordon McClelland and John Wemple (Chair).

Conclusions: GCAC does not see any real impact to the environment resulting from this planned lot line adjustment and the creation of a small lot for the old eighteenth century house provided a variance can be obtained for this small lot which is on the opposite side of the creek from the center farmlands. The resulting configuration of the lots will give each of the four brothers their own lots as well as joint ownership of the large acreage much of which is farmland. Additionally, it will carve out a lot for their sister's home.

Submitted by: _____

John G. Wemple, Jr. - Chair

INSPECTION DETAILS

Applicant(s): Omer Beliveau et al

Address: 2099 West Old State Road, Altamont, NY 12009

Background: According to Applicants, their family has had the property for about fifty years. As the map of survey shows, there are five homes on the property belonging to the family. Plan is to add 25 feet to the eastern boundary of Omer's lot; to add a middle section to Pierre's lots; to add a diagonal section to the southwest portion of the upper part of Daniel's lot; to leave Andre's lot as is; to convey the old house along the front near the highway to their sister Michelle Masi; and for the four brothers to own the remaining acreage jointly. According to the Applicants, the open acreage is leased out for farming and that crops include soy beans and corn feed for cattle. Site drawing shows waterline easement between the Omer and Pierre lots as well as water easements for the Andre and Michelle lots.

Topography: The contour lines on the Applicants' Survey Map indicate elevation varies between 270 feet Above Mean Sea Level (AMSL) and 320 feet AMSL with the high points being at the north west, south west and south east corners as well as the hill along the mid point of the east boundary and the hill in the fields between the Daniel Beliveau lot and the Normanskill. The elevation of the latter being 280 feet AMSL. Elevation declines toward the creek where it is at approximately 270 feet AMSL. There is also a valley area, at 270 to 280 feet AMSL, runs between the higher areas along the east boundary and the south east corner. On the south side of the highway, the elevation is about 270 ft. along the creek and 280 ft. to its east and 290 ft. near the east corner. The soil map shows a gravelly spot east of the Pierre Beliveau lot. Note, the contour line just to the west of the hill and east of Daniel's lot corrected to read 280. At the time of the August 13th site visit, it was noted that the acreage between the middle lots and Omer's is fairly level and the rear portion of Daniel's lot tappers down in elevation toward the rear as well as toward the east and west. Just to the east of the long driveway leading back to Daniel's house, there is a marked drop in elevation on both sides of the driveway area especially on the east side.

Vegetation/Trees: Much of the acreage is farmland as noted above. Presenter noted that beyond the farmland to the north and on both sides of the valley on the east side are treed areas containing pine trees and a mix of deciduous and coniferous trees. Applicant note that the wooded area to the west of the power lines has white pine and spruce and that the trees on the property also include maple. oak and locust. There is a large hickory tree in the open fields to the wet of Daniel's house. It was further noted by Applicant, that hay was raised on the west portion of the large open lot; and to the rear of that, soy beans and corn is grown and those crops have fields across the rear and along the east open area of the property. It should be also noted that there if a single row of pine trees along a good portion of the driveway which apparently acts as a wind break. Likewise, there are many deciduous trees including sumac as well as a few pine trees along the east side of that driveway which has steep drop in elevation down to the cultivated fields to the east. The lots where the houses are nicely lawned, neat and well maintained.

Soil: According to Applicant, soil is clayish. A review of Sheet Number 3 from "Soil Survey of Albany County, New York" -1992 – James H. Brown, as well as the Albany County Interactive Mapping map and the USDA Natural Resources conservation services map shows the many soils on the property.
Soils on the five proposed lots as listed under Actions are as follows:

(1) The south west corner of the lot has UnD soil. To the rear (north) of that, including about 40% of the south portion of the lot, is RhB soil; and to the north of that is RhA soil except for a strip of Sh which runs across most of the north end of the lot. Moving eastern lot line 25 feet to the east will have virtually no effect on the makeup of the soil on that lot. (2) This lot has HuD soil on all except a relatively narrow strip of ElB along the west side of the lot (14.00-1-13.4) and along the additional new midsection which had been part of 14.00-1-13.1 . There also appears to be a small area of Ha soil at the south east corner of the lot. Makeup of the soil on the adjusted lot remains about the same. (3) The new lot will have the same type soil, HuD, on the east portion with UnD at the front portion of the driveway followed by ElB to the north and at the south west tip of the main area of the lot. The area containing the wood frame house is ElB soil which cover more than half of the current rear section plus most of the additional area. This additional area also has some HuD soil south of this ElB section. The lot has a triangular shaped section of Sh soil running across much of the north end. (4) This new 2.01 acre triangular shaped lot with a wood frame house along West Old State Road and to the east of the Normanskill has UnC soil in the midsection where the house is located; Ha soil at the west corner and along the creek; and HuD to the east of the house area. (5) The remaining 95+ acres, which will be jointly owned by the Beliveaus, has fourteen soils. At the rear along the north border with Schenectady County, there is a narrow strip of Gr soil and then Fx adjacent to the Normanskill. To the south of this area, there is a strip of EnA between 250 feet and 185 feet wide which runs across an area covering 85 to 90 % of the area and meets up with Fx soil which runs along the creek and also an area of RhB soil. The latter covers about 30% of the rear east portion and has areas of UnD and Te soil between it and the creek. West of this RhB area is a large area of RhA soil which has an area to the south of Sh soil which covers most of the remaining area to the rear of the Daniel and Linda Beliveau lot. Just above the midpoint of the creek as it flows through the acreage is an area of ElA soil which runs along about 350 feet of the creek. A strip of this ElA soil also runs along the east side of the creek as does the UnD and the

soils noted above. To the south of these Sh, RhB and ElA areas is a strip about 70 to 140 feet wide of HuD soil which runs across the midsection of the property between the Dan and Linda Beliveau lot and the creek. To the south of this area is a large area of Ha soil which covers the whole remaining area east of the Daniel and Linda Beliveau and the Pierre and Mary Beliveau lots to the creek and a wide strip on the east side of the creek,. On the east side of the creek, there is an "L" shaped area, about 150 wide, of HuD soil. To the east of this is a strip about twice as wide of HuB soil along the middle part of the east boundary with a small area of RhA jutting into the HuB area about half way down this area of soil. A strip of Ha soil continues below the HuD area. To the south of this is an area of HuB which continues to the east to the Masi lot. HuD soil runs along both sides of the highway at the south east corner. This area on the south side of the highway also has an area of UnC and also Ha soil to the west of the HuD area. Besides the former mentioned soils, there is a "T" shaped area of ElB soil to the west of Daniel and Pierre's lots. Above, to the north of the Omer lot is Sh soil and to the east of that lot is a strip of RhB soil. There is a small area of UnD soil near the highway to the west of the Pierre lot. -- A brief description of these soils and some of their limitations as found in the above referenced "Soil Survey of Albany County New York" are as follows: **ElA- Elmridge fine sandy loam, 0 to 3 percent slopes** –- This nearly level soil is very deep and moderately well drained. Typically, the surface layer is dark brown fine sandy loam about 9 inches thick. The subsoil is 19 inches thick. The upper part is yellowish brown fine sandy loam; the middle part is yellowish brown loamy fine sand; and the lower part is mottled, dark yellowish brown light olive brown clay loam. The substratum extends to a depth of 60 inches or more. It is mottled reddish brown, brown, and pinkish gray silty clay or clay that has varves of grayish brown fine sand. The seasonal high water table in this soil is at a depth of 1 ½ to 3 feet, perched

above the clayey substratum between November and May. Depth to bedrock is more than 60 inches. Permeability is moderately rapid in the loamy material and slow or very slow in the clayey material. The available water capacity is high, and surface runoff is slow. This soil is well suited to cultivated crops. It is among the best suited soils in the County for food and fiber production. The main limitation of this soil on sites for dwellings with basements is the seasonal high water table. Foundation drains installed above the slowly permeable substratum lower the water table. Protective coatings on basement walls prevent wet basements. The main limitations of this soil for local roads and streets are low strength and the frost-action potential. Constructing roads on raised fill composed of coarse textured base material will improve soil strength and reduce frost action. 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 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 higher areas will reduce wetness. Enlarging the trench below the distribution lines will improve percolation.

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 fine sandy loam, 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. Permeability is moderately rapid to rapid. The available water capacity is low, and surface runoff is slow. The surface layer ranges from very strongly acid to slightly acid. 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 a moderate frost-action potential and the seasonal high water table. Adequate drainage of surface water and constructing the road on a 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. This soil is rapidly permeable and 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 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 – Granby loamy fine sand. This nearly level soil is very deep and poorly drained to very poorly drained. The seasonal high water table is at a depth less than one foot from November to June. Bedrock is more than 60 inches deep. Permeability is rapid. The available water capacity is moderate, and surface runoff is very slow or ponded. The surface layer and subsoil are moderately acid to neutral. The seasonal high water table causes shallow root development, which results in seedling mortality and windthrow hazard. Main limitations on sites for dwellings with basements are the seasonal high water table and ponding. Similar limitation for local roads and streets due to the 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. The main limitations affecting the use of this soil as a site for septic tank absorption fields are the seasonal high water table, ponding, and poor filtering capacity. Other nearby soils are better suited to this site.

Ha – Hamlin silt loam – This nearly level soil is very deep and well drained. It is on flood plains along large streams and the Hudson River. The seasonal high water table in this Hamlin soil is at a depth of 3 to 6 feet from November to May. Depth to bedrock is more than 60 inches. Permeability is moderate. Available water capacity is high, and surface runoff is slow. The soil is subject to occasional flooding for brief periods from November to May. The main limitation of this soil on sites for dwellings with basements is occasional flooding. Other nearby soils that are not subject to flooding are better suited to this use. The main limitation of this soil for local roads and streets is flooding. Constructing roads on raised fill material composed of coarse textured subgrade above the flood level is needed to prevent flood damage. The main limitations affecting the use of this soil as a site for septic tank absorption fields are flooding and the seasonal high water table. Other nearby soils that are not subject to flooding are better suited to this use. **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. **HuD - Hudson silt loam, hilly.** This soil is very deep and moderately well drained. Slopes range from 15 to 25 percent. 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 limitations on sites for dwellings with basements are the seasonal high water table and slope. Diversion ditches above the building, foundation drains, and protective coatings on basement walls help prevent wet basements. Designing buildings to conform to the natural slope and landscaping around buildings help overcome the slope limitation. Erosion is a hazard during construction. Maintaining a vegetative cover adjacent to the construction site and diverting runoff help control erosion during construction. The main limitations for local roads and streets are the frost-action potential, the low strength, and the slope. Coarse textured subgrade or base material to frost

depth and adequate drainage in areas of the wetter included soils will reduce frost action and increase soil strength. Building roads on the contour to the extent possible and carefully landscaping and seeding the site will avoid costly construction practices and stabilize roadbanks, respectively. The main limitations affecting the use of this soil as a site for septic tank absorption fields are the seasonal high water table, the slow percolation, and the slope. A drainage system around the filter field and diversions to intercept runoff from the higher areas will lower the water table. Enlarging the trench below the distribution lines will improve the percolation of effluent. Installing distribution lines on the contour and using drop boxes or other structures to distribute the effluent evenly will enable the system to function more effectively. **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. **Sh – Shaker fine 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. **Te - Teel silt loam.** This nearly level soil is very deep and moderately well drained. The seasonal high water table in this Teel soil is at a depth of 1 ½ to 2 feet from February to April. The soil is subject to occasional flooding for brief periods from November to May. Depth to bedrock is more than 60 inches. Permeability is moderate. Surface run off is slow. The available water capacity is high. The main limitations of this soil on sites for dwelling with basements are flooding and the seasonal high water table. The main limitations for local roads and streets are flooding and the frost-action potential. Constructing roads on coarse textured fill material may reduce flood damage and frost heave. Laying out roads around the flood plain will reduce construction costs.

UnC - Unadilla Silt loam, 8 to 15 % slopes. This strongly sloping soil is very deep and well drained. The seasonal high water table in this soil is at a depth of more than 6 feet. Depth to bedrock is more than 60 inches. Permeability is moderate. The available water capacity is high, and runoff is slow. The main limitation of this soil on sites for dwellings with basements is the slope. Constructing dwellings to conform to the natural lay of the land or grading helps overcome the slope limitation. Erosion is a hazard during construction. Maintaining the vegetative cover adjacent to the site, diverting runoff from the higher areas, and timely revegetating following construction help control erosion. The main limitation of this soil for local roads and streets is the frost-action potential. Constructing roads on raised fill composed of coarse textured base material will reduce the frost-action potential. The mail limitation affecting the use of this soil as a site for septic tank absorption fields is the slope. Laying out distribution lines on the contour and using distribution boxes or other structures will ensure even distribution of effluent and enable the system to function more effectively. **UnD Unadilla silt loam, 15 to 25 percent slopes**. This moderately steep soil is very deep and well drained. The seasonal high water table in this soil is at a depth of more than 6 feet. Depth to bedrock is more than 60 inches. Permeability is moderate. The available water capacity is high, and runoff is rapid. The main limitation of this soil on sites for dwellings with basements is the slope. Excavations and cutbacks are subject to caving. The erosion hazard is severe in excavated

sites. Grading and cutting and filling to form benches help overcome the slope limitation. Maintaining the vegetative cover adjacent to the site, diverting runoff, and timely revegetating following construction help control erosion. The main limitation for local roads and streets is the frost-action potential. Building roads on or near the contour on raised fill or course textured material will provide drainage away from the roadway.

Drainage/Wetlands: While wetlands ate not delineated on the site drawing, Presenter noted that there are wetland areas in the northeast area of the creek and also in the valley area on the east with a small watercourse running through this valley area. Drainage is from the higher elevation to the lower toward the creek and then toward the Reservoir. Contour lines on the Applicants' survey drawing show that natural drainage would be toward the creek and also toward the low area between the middle lots and the hill west of the creek. Application for subdivision indicates that besides the creek, there is a floodplain on the property. This survey drawing in turn shows flood zone indicators with zone X on the higher areas and zone AE on areas where elevation is in the 270 Ft. AMSL range as well as a broad area between the creek and the low area on the creek's east side as well as the lower elevations on the south side of the highway near to but not

including the barn area. The Soil Survey map shows symbol for wet spots near the east side of the Pierre Beliveau lot about 217-220 feet north of the highway and also to the east of the creek at the end of the valley area about even with the new boundary line between Daniel's and Pierre's lots. The Soil Survey map also shows SLP special line feature on six places.

Septic/Wells: Septic systems and wells would remain as is with necessary easements as shown on the survey map. It appears advisable for these easements to be written into the deeds to protect future owners of the properties.

Visual Impact: Since there is no planned development, there will not be any visual impact caused by the proposed action.

Endangered Species: As far as the Presenter knows, there are no Karner blue or Indiana bats on the property although according to Applicant there are bats on the property.

Historical Considerations: The property contains an old house and old Dutch barns. A review of the list obtained from the Town Assessor's Office of structures that were built prior to 1900 shows that 2147 West Old State Road, which is planned to be conveyed to Michelle Masi, was built in 1790. According to Applicant, the Dutch barns predate the house and they were moved to the property from another location. Applicants also said there is no cemetery on the property but they have found Indian arrow heads by the creek and also a piece of old pottery on the property. While at the site visit, GCAC took the opportunity to look inside the old Dutch barn which appears to be in fairly good condition, despite that fact that someone for a reason unknown to the Applicants had cut out and removed a large portion of one of the main cross members of the barn. Applicants hope to undertake repairs to the barn and raise it further above ground some time in the future. Applicant noted that there is a picture of the eighteenth century house in the Guilderland Library.

Submitted by: _____

John G. Wemple, Jr. - Chair