

**FRESHWATER WETLAND DELINEATION REPORT
WESTERN AVENUE DEVELOPMENT PROJECT
TOWN OF GUILDERLAND
ALBANY COUNTY, NEW YORK**

**September 2019
PREPARED BY:**

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1.0 INTRODUCTION

B. Laing Associates, Inc. has prepared this report in connection with the proposed development project on 14.86 acres of “vacant” property in the Town of Guilderland, Albany County, New York. On April 24, 2019, B. Laing Associates personal performed a delineation of freshwater wetlands on said property (the site). Per the three-parameter methodology for wetland delineation, soils, hydrology, and vegetation were simultaneously characterized at each observation point. The data were utilized to make a wetland determination at each point. Only when all three conditions tested positive was a wetland determination made.

In summary, a small strip of wetlands, approximately 10 to 20 feet wide and 350 feet long or some 4,051 square feet (0.093 ac.), is present on site. These wetlands occur at the bottom of a steeply-sided, man-altered drainage ditch. They occur to the northeast of the old Rapp Road¹ (where an old drainage culvert exists) and extend to the northeast. At their terminus, they flow into an underground drainage system which services the Crossgates Mall. See below for more information.

2.0 SITE CONDITIONS

2.1 Existing Condition and History

The subject site is located north of Western Avenue and east of the southwestern Mall Connector Roadway (referred to herein as new Rapp Road), in the Town of Guilderland, Albany County, New York. It is bordered on the north by the Crossgates Mall and to the east by largely vacant residential properties on Lawton Terrace, Tiernan Court and Rielton Court and Gabriel Terrace. The site is 14.86 acres and is comprised of approximately two dozen tax lots. In the past, the property was operated as a horse farm. It was then was subdivided to residential lots. Most of the lots were bought by the Mall and allied entities. The lots and the homes on them are largely abandoned; some for decades.

Currently, the site is occupied by secondary, successional woodland (on the western two-thirds) and the “abandoned” residences mixed with trees and landscape vegetation (on the eastern one-third), though also tending toward secondary succession in places. In addition, the very disturbed ecological condition on the western two-thirds is the result of the relocation and expansion of Rapp Road westward and subsequent, deep ditching of the area to allow drainage for the old and new Rapp Road (Crossgates Mall Access Road) decades ago. This ditching ranged from a few feet to approximately 12 feet deep and so, substantially altered the original topography. The site is largely uplands and the dominant characteristics of the uplands are disturbed, fill soils and the secondary succession vegetation. A small, very linear and narrow (man-altered)

¹ The older portion of Rapp Road, which still remains, was replaced by the Crossgates Mall Connector Roadway (i.e., a SW access roadway), constructed somewhat to the west of the older road.

wetland is present on-site. It extends northeast from the old Rapp Road culvert to the Crossgates Mall South Ring Road's (the Western Avenue Bypass) drainage culvert. Detailed descriptions of these parameters – vegetation, soils, hydrology, as well as general wildlife are discussed below.

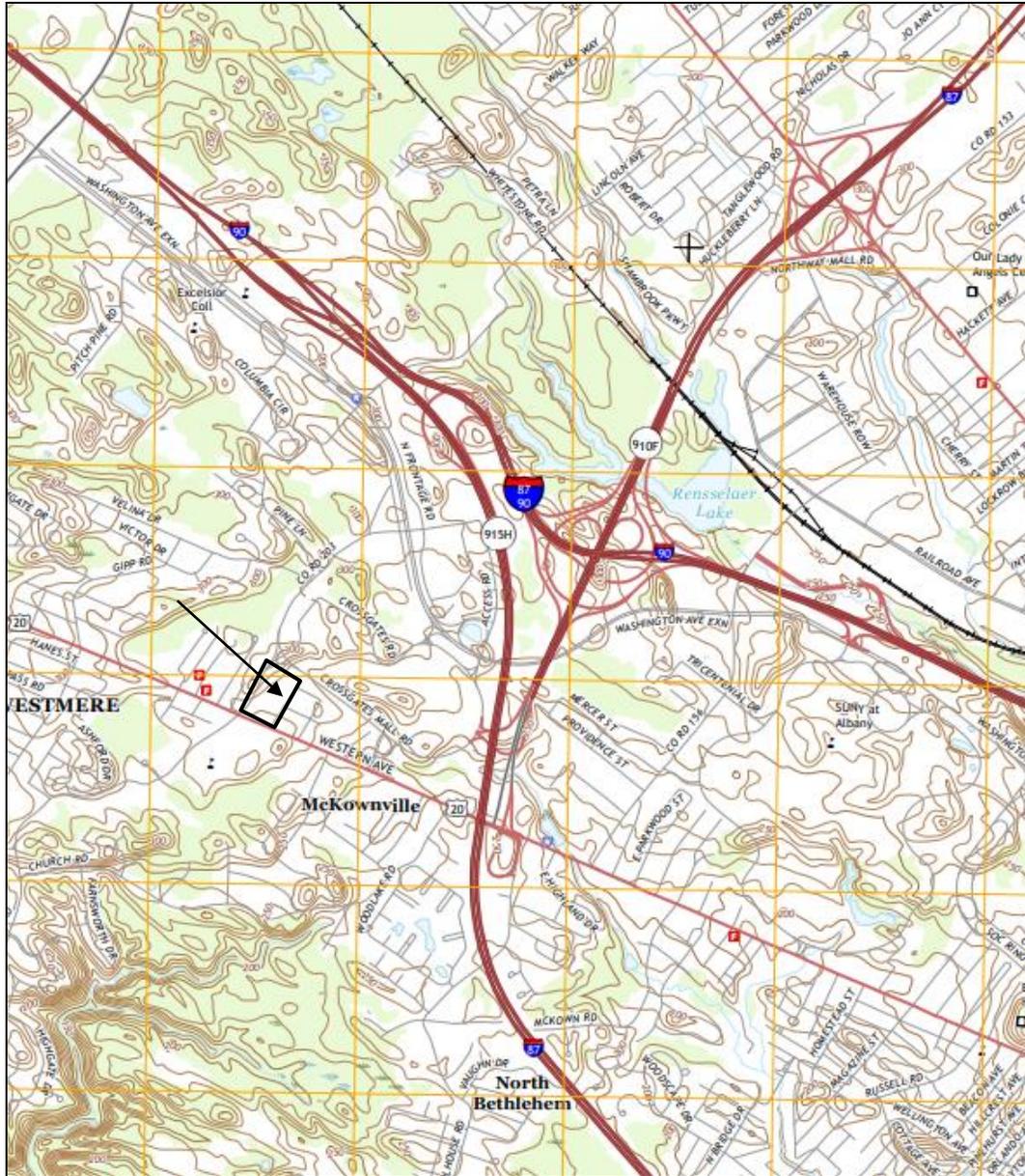


FIGURE 1
SITE LOCATION MAP
Boundaries Approximate
(Source: Albany USGS 2016)
TOWN OF GUILDERLAND
ALBANY COUNTY, NEW YORK

2.2 Vegetation

As previously indicated, vegetation on-site is consistent with a secondary succession woodland as a result of new growth after decades of use as cleared land (likely for agriculture) followed by roadway and residential development. The canopy of the uplands is moderately-closed to open and composed of mature to young white pine (*Pinus strobus*, FACU), red maple (*Acer rubrum*, FAC), black cherry (*Prunus serotina*, FACU), cottonwood (*Populus deltoides*, FAC), and boxelder (*Acer negundo*, FAC). Shrubs identified in this area include Japanese honeysuckle (*Lonicera japonica*, FACU), tartarian honeysuckle (*Lonicera tatarica*, FACU), serviceberry (*Amelanchier canadensis*, FAC) and hawthorn (*Crataegus sp.*, UPL).

The upland herbaceous layer on-site is thick and consists mainly of upland species. It is composed of dense Virginia creeper (*Parthenocissus quinquefolia*), goldenrod (*Solidago sp.*), garlic mustard (*Alliaria petiolata*, FACU), Queen Anne's lace (*Daucus carota*, UPL), daisy fleabane (*Erigeron annuus*, FACU), Poison Ivy (*Toxicodendron radicans*) and wild geranium (*Geranium maculatum*, FACU). Invasive vine species, such as Oriental bittersweet (*Celastrus orbiculatus*) are especially dominant in the vicinity of the old Rapp Road.

The majority of the identified plants on site are facultative, facultative upland and obligate upland species. However, a few plant species observed during field efforts were facultative wetland to wetland species. While most of these species were largely located in the small, linear wetland northeast old Rapp Road (see below), some species of wetland plants (e.g., jewelweed (*Impatiens capensis*), sensitive fern (*Onoclea sensibilis*), etc.) were observed in high-topography upland areas. These areas were likely spoil from the excavation of the man-made linear wetland and, while uplands, contained the seed or root stock of wetland species. Thus, the vast majority of the site is a moist to dry, moderately-closed to open canopy woodland.

As the wetland on-site exists as a linear man-made drainage channel between upland slope, no "wetland" trees were observed on site. The shrub layer was also almost completely missing, except as upland shrubs grow along its periphery. The herbaceous layer of the wetland was also sparse but consisted of sensitive fern, jewelweed, and skunk cabbage (*Symplocarpus foetidus*).

No Albany Pine Bush habitat occurs on site. The subject site lacks pitch pine (*Pinus rigida*) and contains few grassland species. Blue lupine (*Lupinus perrennis*) was specifically searched for and was not found. This result would be expected due to the distance to the Albany Pine Bush (approximately 1,200 feet, across the Crossgates Mall and its associated roads and parking) and woodland canopy on the majority subject property (See also Section 2.0). In addition, the property is also not mentioned in the Albany Pine Bush 2017 Management Plan.

The complete plant list can be found in this report in Table 1.

2.3 Hydrology

The site is almost entirely uplands with well drained soils/fills dominating the landscape. The lack of hydric features on-site is probably due to (i) the dominance of sands, (ii) the absence of a shallow, impermeable layer or aquaclude beneath the sandy sediment layer, (iii) significant erosion from high topography areas to lower topography areas when the site was and (iv) significant, prior cutting of the site's surface for pass-through drainage (see below). Thus, the localized permeability rate is high and site conditions are dominantly dry.

The site's topography ranges from flat to very steep. A great deal of "cutting" has occurred on this property which has had influences on the previously-existing drainage. A large man-made ditch (see below) was cut into the property where water collects and drains north and east (see below). The sides of this ditch are some 6-10' high and very steep. The southeastern corner as well as the residential sections are largely flatter except for areas where past excavation is evident.

No wetlands are identified on the New York State Department of Environmental Conservation (NYSDEC) freshwater wetlands map, the U.S. Fish and Wildlife Service National Wetland Inventory (NWI) maps or the Albany County Mapping system. In addition, no hydrologic features are shown on the 1962 United States Geological Survey quadrangle (see Figure 2). However, a small, highly linear wetland does occur on site.

A small strip of wetlands, approximately 10 to 20 feet wide and 350 feet long or some 4,051 square feet, is present on site. These wetlands occur at the bottom of the steeply-sided, man-altered drainage ditch. They occur to the northeast of the old Rapp Road (where a drainage culvert exists) and extend to the northeast. At their terminus, the surface flow passes into an underground drainage system which services the Crossgates Mall. The southwestern side of the old Rapp Road (and the culvert underneath) is characterized by two drainage ditches which converge at the culvert. These ditches collect water from nearby uplands and channel them into the linear wetland. The ditches are lined with stones and have little to no vegetation (hydrophytic or otherwise). In addition, these ditches are always dry (i.e. no standing or surface water present) except for during and immediately after (i.e. within 24 hours of) a rain event.

The drainage ditches and wetland on site drain to the Krum Kill and then ultimately to the Normans Kill. The drainage area/watershed of the wetlands includes the site itself and then an area to the southwest which extends across and along a portion of Western Avenue.

2.4 Soils

The Soil Survey for Albany County depicts the site has consisting of Colonie loam fine sand, Elnora loamy fine sand, Granby loamy fine sand, Stafford loamy fine sand,

Udipsamments, smoothed. The United States Department of Agriculture (USDA) National Resources Conservation District (NRCS) described the soils as follows:

The **Colonie** series consists of very deep, well drained to excessively drained soils formed in glaciolacustrine, glaciofluvial, or eolian deposits dominated by fine sand and very fine sand. Permeability is moderately rapid or rapid. Slope ranges from 0 to 60 percent (but range that steeply on-site only on ditch side slopes).

The **Elnora** series consists of very deep, moderately well drained soils on glacial lake plains and deltas. These soils formed in wind or lacustrine deposited sands. Slopes range from 0 to 8 percent.

The **Granby** series consists of very deep, poorly drained to very poorly drained soils on glacial lake plains or deltas. These soils formed in water or wind deposited sands. Slopes range from 0 to 2 percent.

The **Stafford** series consists of very deep, somewhat poorly drained soils formed in sandy glacio-lacustrine deposits. They are nearly level soils on deltas and sand plains. Saturated hydraulic conductivity is high or very high throughout the soil. Slope ranges from 0 to 3 percent.

Udipsamments series consists of very deep, well drained to somewhat excessively well drained soils that have been smoothed, cut or filled. Slopes range from 0 to 8 percent.

Soil investigations on-site determined that the site is dominated by Colonie and Elnora, upland soils which have been heavily disturbed over time. Many of those areas depicted as Stafford or Granby soils in the Albany County soil survey were, in fact, also dry, high chroma upland, sandy soils. No deep, somewhat poorly drained or poorly drained soils were identified on-site. Bright yellow chromas (5-6) were identified from a soil depth of 8 inches to 18 inches on-site. This is often the result of disturbed, fill soils placed on-site (see below) as well as the very deep drainage cuts in the soils from projects related to old Rapp Road and new Rapp Road/Mall Access Roadway (as re-aligned 30 years ago). Additionally, no free water was observed within 18 inches of the surface of the former Stafford or Granby soils. The lack of an aquiclude resulting from the excessive drainage cuts which occurred many decades ago has apparently prevented water retention in the upper, sandy soils and so, hydric conditions were lost and have not redeveloped. Thus, it was determined that no Stafford or Granby soils were present on-site. Well drained soils such as the Colonie, Elnora and Udipsamments series described above occupy the site with the exception of the small strip of wetlands.

Soils mixed through many portions of the subject site can be considered Udipsamments/Udorthents – i.e., urban cut and fills. Virtually all of the site's soils and vegetation has been substantially disturbed during its clearing and/or use as a farm followed by residential use and cut/fill for Rapp Road (old and new) drainage. The cleared farm and then the residential development created numerous buildings many of

which still remain on site but are vacant. Further, the farm was likely kept in an “open aspect” with little to no tree or shrub vegetation and, most likely, continuously exposed soils. quadrant This “double” soil horizon (in the “A” layer) is evident in several locations.

The site also has considerable cuts (as much as ten to twelve feet deep) on the site’s northeastern quadrant. Cutting is also evident on the site’s southwestern quadrant. The cutting was done to promote drainage for both the old and new Rapp Road alignments. As a result of these activities, any areas of soil which may have been originally somewhat poorly Stafford or poorly drained Granby soils have disappeared.

2.5 Wildlife

Several wildlife species were observed during B. Laing Associates, Inc.’s wetland field inventories. Wildlife recorded consisted of species common to the Guilderland/Albany area including expected birds (such as sparrows, hawks, etc.), and mammals typical of suburban areas. As discussed above the site is not proximate to nor does it contain species characteristic of Albany Pine Bush. A list of these species can be found in Table 2.



FIGURE 2
HISTORIC AERIAL MAP
 (Source: Albany USGS 1962)²

PROJECT SITE:
TOWN OF GUILDERLAND,
ALBANY COUNTY, NEW YORK

² Shows property “open”, i.e., most likely a farm and definitely lacking woodlands.

Soil Map—Albany County, New York
 (Figure 3 - NRCS Soils Data (boundaries approx.))



Map Scale: 1:2,650 if printed on A landscape (11" x 8.5") sheet.

0 35 70 140 210 Meters

0 100 200 400 600 Feet

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84



Table 1
Vegetative Species List- Alphabetical

Common Name	Scientific Name	Indicator Status
Bedstraw	<i>Galium sp.</i>	FAC
Bitternut Hickory	<i>Carya cordiformis</i>	FAC
Black Cherry	<i>Prunus serotina</i>	FACU
Black Locust	<i>Robinia pseudoacacia</i>	FACU
Black Walnut	<i>Juglans nigra</i>	FACU
Boxelder	<i>Acer negundo</i>	FAC
Bush Clover	<i>Lespedeza sp.</i>	FAC
Canada Mayflower	<i>Maianthemum canadense</i>	FACU
Common Mullein	<i>Verbascum thapsus</i>	UPL
Cottonwood	<i>Populus deltoides</i>	FAC
Dandelion	<i>Taraxacum officinale</i>	FACU
Deer Tongue Grass	<i>Dichanthelium clandestinum</i>	FACW
Early Blue Cohosh	<i>Caulophyllum thalictroides</i>	FACU
False Solomon's Seal	<i>Maianthemum racemosum</i>	FACU
Garlic Mustard	<i>Alliaria petiolata</i>	FACU
Goldenrod	<i>Solidago sp.</i>	FAC
Grape	<i>Vitis sp.</i>	FAC
Hay-scented Fern	<i>Dennstaedtia punctilobula</i>	UPL
High-bush Blueberry	<i>Vaccinium corymbsum</i>	FACW
Horsetail	<i>Equisetum sp.</i>	FACW
Japanese Honeysuckle	<i>Lonicera japonica</i>	FACU
Jewelweed	<i>Impatiens capensis</i>	FACW
Mugwort	<i>Artemisia vulgaris</i>	UPL
Multiflora Rose	<i>Rosa multiflora</i>	FACU
Nodding Trillium	<i>Trillium cernuum</i>	FAC
Norway Maple	<i>Acer platanoides</i>	UPL
Onion	<i>Allium sp.</i>	FAC
Oriental Bittersweet	<i>Celastrus obiculatus</i>	UPL
Poison Ivy	<i>Toxicodendron radicans</i>	FAC
Pussy Willow	<i>Salix discolor</i>	FACW
Raspberry	<i>Ruus idaeus</i>	FACU
Red Maple	<i>Acer rubrum</i>	FAC
Red Oak	<i>Quercus rubra</i>	FACU
River Birch	<i>Betula nigra</i>	FACW
Rye Grass	<i>Lolium sp.</i>	FAC
Sassafras	<i>Sassafras albidum</i>	FACU
Sensitive Fern	<i>Onoclea sensibilis</i>	FACW

Skunk Cabbage	<i>Symplocarpus foetidus</i>	OBL
Solomon's Seal	<i>Polygonatum biflorum</i>	FACU
Staghorn Sumac	<i>Rhus typhina</i>	FACU
Stonecrop	<i>Sedum sp.</i>	FAC
Thistle	<i>Cirsium vulgare</i>	FACU
Tree-of-Heaven	<i>Ailanthus altissima</i>	UPL
Virginia Creeper	<i>Parthenocissus quinquefolia</i>	FACU
White Ash	<i>Fraxinus americana</i>	FACU
White Pine	<i>Pinus strobus</i>	FACU
Wild Geranium	<i>Gernanium maculatum</i>	FACU
Wild Strawberry	<i>Fragaria vesca</i>	UPL
Wood Anenome	<i>Anemone quinquefolia</i>	FACU

Table 2
Wildlife Species List³

Birds	Common Name	Scientific Name
(Taxonomic Order)	Canada Goose	<i>Branta canadensis</i>
	Feral Pigeon	<i>Columba livia</i>
	Turkey Vulture	<i>Cathartes aura</i>
	Red-tailed Hawk	<i>Buteo jamaicensis</i>
	Red-bellied Woodpecker	<i>Melanerpes carolinus</i>
	Downy Woodpecker	<i>Dryobates pubescens</i>
	Pileated Woodpecker	<i>Drycopus pileatus</i>
	Eastern Kingbird	<i>Tyrannus tyrannus</i>
	Eastern Phoebe	<i>Sayornis phoebe</i>
	Fish Crow	<i>Corvus ossifragus</i>
	Tufted Titmouse	<i>Baeolophus bicolor</i>
	White-breasted Nuthatch	<i>Sitta carolinensis</i>
	Carolina Wren	<i>Thryothorus ludovicianus</i>
	Blue-gray Gnatcatcher	<i>Poliophtila caerulea</i>
	Ruby-crowned Kinglet	<i>Regulus calendula</i>
	American Robin	<i>Turdus migratorius</i>
	Northern Mockingbird	<i>Mimus polyglottos</i>
	American Goldfinch	<i>Spinus tristis</i>
	House Finch	<i>Haemorhous mexicanus</i>
	Chipping Sparrow	<i>Spizella passerina</i>
	Dark-eyed Junco	<i>Junco hyemalis</i>
	Red-winged Blackbird	<i>Agelaius phoeniceus</i>
	Brown-headed Cowbird	<i>Molothrus ater</i>
	Common Grackle	<i>Quiscalus quiscula</i>
	Pine Warbler	<i>Setophaga pinus</i>
	Myrtle Warbler	<i>Setophaga coronata coronata</i>
	Northern Cardinal	<i>Cardinalis cardinalis</i>
Mammals	Eastern Coyote	<i>Canis latrans</i>
(Alphabetical)	Eastern Raccoon	<i>Procyon lotor</i>
	Gray Squirrel	<i>Sciurus carolinensis</i>
	White-tailed Deer	<i>Odocoileus virginianus</i>

³ Includes only wildlife or sign observed during April 24, 2019, wetland delineation.

3.0 FRESHWATER WETLAND DEFINITIONS

3.1 Town of Guilderland Code

The Town of Guilderland's Town Code per Chapter 181, Freshwater Wetlands, defines freshwater wetlands as the following:

“Lands and waters as defined in Subdivision 1 of § 24-0107 of the Environmental Conservation Law of the State of New York as the same may be from time to time amended and as such lands and waters are shown on the Freshwater Wetlands Map.”

With a boundary of:

“The outer limit of the vegetation or of the waters, as the case may be, specified in the definition of "freshwater wetlands" herein provided.”

The Town of Guilderland in this case has no specific wetland definition which would be more stringent than, or different from, the definition provided by the State of New York's Department of Environmental Conservation (NYSDEC). The Town of Guilderland defaults to the definition as provided by the State's Environmental Conservation Law (ECL). No Town wetlands are found on site.

3.2 NYSDEC Freshwater Wetland Definition

As above, the Town of Guilderland defines freshwater wetlands in the town as the outer limit of vegetation or of the waters of lands defined in Subdivision 1 of § 24-0107 of the Environmental Conservation Law of the State of New York. That definition of freshwater wetlands, per the NYSDEC, is as follows:

(a) lands and submerged lands commonly called marshes, swamps, sloughs, bogs, and flats supporting aquatic or semi-aquatic vegetation of the following types:

(1) wetland trees, which depend upon seasonal or permanent flooding or sufficiently water-logged soils to give them a competitive advantage over other trees; including, among others, red maple (*Acer rubrum*) willows (*Salix spp.*), black spruce (*Picea mariana*); swamp white oak (*Quercus bicolor*), red ash (*Fraxinus pennsylvanica*), black ash (*Fraxinus nigra*), silver maple (*Acer saccharinum*), American elm (*Ulmus americana*), and Larch (*Larix laricina*);

(2) wetland shrubs, which depend upon seasonal or permanent flooding or sufficiently water-logged soils to give them a competitive advantage over other shrubs; including, among others, alder (*Alnus spp.*), buttonbush (*Cephalanthus occidentalis*), bog rosemary (*Andromeda glaucophylla*), dogwoods (*Cornus spp.*), and leatherleaf (*Chamaedaphne calyculata*);

(3) emergent vegetation, including, among others, cattails (*Typha spp.*), pickerelweed (*Pontederia cordata*), bulrushes (*Scirpus spp.*), arrow arum

- (*Peltandra virginica*), arrowheads (*Sagittaria spp.*), reed (*Phragmites communis*), wildrice (*Zizania aquatica*), bur-reeds (*Sparganium spp.*), purple loosestrife (*Lythrum salicaria*), swamp loosestrife (*Decodon verticillatus*), and water plantain (*Alisma plantago-aquatica*);
- (4) rooted, floating-leaved vegetation; including, among others, water-lily (*Nymphaea odorata*), water shield (*Brasenia schreberi*), and spatterdock (*Nuphar spp.*);
- (5) free-floating vegetation; including, among others, duckweed (*Lemna spp.*), big duckweed (*Spirodela polyrhiza*), and watermeal (*Wolffia spp.*);
- (6) wet meadow vegetation, which depends upon seasonal or permanent flooding or sufficiently water-logged soils to give it a competitive advantage over other open land vegetation; including, among others, sedges (*Carex spp.*), rushes (*Juncus spp.*), cattails (*Typha spp.*), rice cut-grass (*Leersia oryzoides*), reed canary grass (*Phalaris arundinacea*), swamp loosestrife (*Decodon verticillatus*), and spikerush (*Eleocharis spp.*);
- (7) bog mat vegetation; including, among others, sphagnum mosses (*Sphagnum spp.*), bog rosemary (*Andromeda glaucophylla*), leatherleaf (*Chamaedaphne calyculata*), pitcher plant (*Sarracenia purpurea*), and cranberries (*Vaccinium macrocarpon* and *V. oxycoccos*);
- (8) submergent vegetation; including, among others, pondweeds (*Potamogeton spp.*), naiads (*Najas spp.*), bladderworts (*Utricularia spp.*), wild celery (*Vallisneria americana*), coontail (*Ceratophyllum demersum*), watermilfoils (*Myriophyllum spp.*), muskgrass (*Chara spp.*), stonewort (*Nitella spp.*), water weeds (*Elodea spp.*), and water smartweed (*Polygonum amphibium*);
- (b) lands and submerged lands containing remnants of any vegetation that is not aquatic or semi-aquatic that has died because of wet conditions over a sufficiently long period, provided that such wet conditions do not exceed a maximum seasonal water depth of six feet and provided further that such conditions can be expected to persist indefinitely, barring human intervention;
- (c) lands and waters substantially enclosed by aquatic or semi-aquatic vegetation as set forth in paragraph (a) or by dead vegetation as set forth in paragraph (b), the regulation of which is necessary to protect and preserve the aquatic and semi-aquatic vegetation; and
- (d) the waters overlying the areas set forth in (a) and (b) and the lands underlying (c).

No NYSDEC wetlands are found on site.

3.3 ACOE Freshwater Wetland Definition

The Army Corps of Engineers (ACOE), and the Environmental Protection Agency, define federally jurisdictional wetlands as:

"... areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas."

As above, the 1987 Corps of Engineers Wetlands Delineation Manual and Regional Supplements (the 1987 Manual) organizes characteristics of a potential wetland into three categories: soils, vegetation and hydrology. The manual and supplements contain criteria for each category. With this approach, the ACOE takes jurisdiction, under the Clean Water Act, over any wetland which exhibits the three parameters per the 1987 Manual. ACOE wetlands are found on site.

3.4 Wetland Definition Summary

As above, the NYSDEC, and by proxy the Town of Guilderland, defines their wetlands as limits of hydrophytic vegetation or the waters associated with lands dominated by hydrophytic vegetation. Further, the Town of Guilderland also defines their wetlands by areas known to be mapped as such. By these definitions, any land without standing water, not dominated by hydrophytic vegetation or having been previously mapped as a freshwater wetland, would not be considered a freshwater wetland. Additionally, NYSDEC has a minimum wetland size of 12.4 acres and hydrophytic areas on site are a small fraction of that size. As such, neither the NYSDEC nor Town of Guilderland have jurisdiction over the wetlands on site.

However, as the delineated wetlands on site do exhibit the three wetland parameters as set forth in the 1987 Manual, per the Clean Water Act, the ACOE have jurisdiction over small, linear wetlands on site.

4.0 WETLAND FINDINGS AND ASSESSMENT

The site located as detailed in Section 1 was analyzed for wetland characteristics and jurisdictional wetlands were delineated per the 1987 Manual. As above, field investigations by B. Laing Associates, Inc. discovered that a 4,051 square foot (0.093 ac.) area characterized by all three parameters, (i.e. wetland vegetation, hydrology, or soils) was present north and east of Old Rapp Road and delineated as such. This ribbon of wetland occurs in the man-altered, deeply excavated ditch. This linear, 0.093-acre wetland on site is under the jurisdiction of the Army Corps of Engineers under the Clean Water Act. In addition, two, much shallower drainage ditches were located west of Old Rapp Road, but without hydrophytic vegetation, hydric soils and only temporary hydrology, these areas were not considered jurisdictional wetlands.

It is possible, due to historical poorly drained soils (e.g. *Elnora*, *Granby*), that additional wetlands did exist on this site half a century or more ago. If additional wetlands ever did exist on site, they have long since been converted to functional uplands due to half a

century or more of disturbance, including extensive and deep draining, cutting and filling.

Thus 14.77 acres, the balance of the site, are uplands.

APPENDIX A
SITE PHOTOGRAPHS
March 2019



Photo A: Looking northeast into the man-made linear wetland on site.



Photo B: Looking east at one of the abandoned residences associated with the site.



Photo C: Looking south along “old Rapp Road,” now abandoned.



Photo D: Looking at the linear wetland on site where it enters a culvert.



Photo E: Looking at the uplands from the linear wetland, showing brushy understory and variable topography.

APPENDIX B
WETLAND DATA SHEETS

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: PYR015 City/County: Albany Sampling Date: 7/29/19
 Applicant/Owner: Crossgates Mall / Pyramid State: NY Sampling Point: UPL
 Investigator(s): MPB / TJS Section, Township, Range: Owlderland
 Landform (hillside, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope %: _____
 Subregion (LRR or MLRA): _____ Lat: 42.689134 Long: -73.857540 Datum: _____
 Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
 - Upland sample taken some 10' "up" in topo from
 W below. W in steep ditch.
 - No water in soil sample hole down ~ 2'

VEGETATION – Use scientific names of plants.

Sampling Point: UPL

Tree Stratum (Plot size: <u>00</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Pinus strobus</u>	<u>8</u>	<u>✓</u>	<u>FACU</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>10</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>30%</u> (A/B)																
2. <u>Acer rubrum</u>	<u>3</u>	<u>✓</u>	<u>FAC</u>																	
3. <u>Acer platanoides</u>	<u>3</u>	<u>✓</u>	<u>UPL</u>																	
4. <u>Fraxinus pennsylvanica americana</u>	<u>3</u>	<u>✓</u>	<u>FACU</u>																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
<u>17</u> =Total Cover				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: _____</td> <td>(A) _____ (B) _____</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: _____	(A) _____ (B) _____	Prevalence Index = B/A = _____	
Total % Cover of:	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals: _____	(A) _____ (B) _____																			
Prevalence Index = B/A = _____																				
Sapling/Shrub Stratum (Plot size: <u>5m</u>)																				
1. <u>Lonicera japonica</u>	<u>30%</u>	<u>✓</u>	<u>FAC</u>																	
2. <u>Rosa multiflora</u>	<u>10%</u>	<u>✓</u>	<u>FACU</u>																	
3. <u>Pinus scrotina</u>	<u>10%</u>	<u>✓</u>	<u>FACU</u>																	
4. <u>Vaccinium corymbosum</u>	<u>2%</u>	_____	<u>FACW</u>																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
<u>62%</u> =Total Cover																				
Herb Stratum (Plot size: <u>1m</u>)																				
1. <u>Parthenocissis quinquefolia</u>	<u>40%</u>	<u>✓</u>	<u>FACU</u>	Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Toxicodendron radicans</u>	<u>20%</u>	<u>✓</u>	<u>FAC</u>																	
3. <u>Solidago sp.</u>	<u>5%</u>	_____	<u>FAC</u>																	
4. <u>Oxoclea sensibilis</u>	<u>5%</u>	_____	<u>FACW</u>																	
5. <u>Caulophyllum giganteum</u>	<u>2%</u>	_____	<u>FAC</u>																	
6. <u>Geranium maculatum</u>	<u>7%</u>	_____	<u>FACU</u>																	
7. <u>Marechthium canadense</u>	<u>7%</u>	_____	<u>FACU</u>																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
<u>86%</u> =Total Cover																				
Woody Vine Stratum (Plot size: _____)																				
1. <u>Oriental Bittersweet</u>	<u>15%</u>	<u>✓</u>	<u>UPL</u>																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
<u>15%</u> =Total Cover																				

Remarks: (Include photo numbers here or on a separate sheet.)

Hydrophytic Vegetation Present? Yes _____ No ✓

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: PYRCRGAS- City/County: Albany Sampling Date: 7/27/19
 Applicant/Owner: Crossgates Mall / Pyramid State: NY Sampling Point: W
 Investigator(s): MPB / TJS Section, Township, Range: _____
 Landform (hillside, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope %: _____
 Subregion (LRR or MLRA): _____ Lat: 42.689139 Long: -73.857590 Datum: _____
 Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes _____ No _____
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	If yes, optional Wetland Site ID: _____
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	_____ Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> Surface Water (A1)	_____ Drainage Patterns (B10)
_____ High Water Table (A2)	_____ Moss Trim Lines (B16)
<input checked="" type="checkbox"/> Saturation (A3)	_____ Dry-Season Water Table (C2)
_____ Water Marks (B1)	_____ Crayfish Burrows (C8)
_____ Sediment Deposits (B2)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Drift Deposits (B3)	_____ Stunted or Stressed Plants (D1)
_____ Algal Mat or Crust (B4)	_____ Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ Shallow Aquitard (D3)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Microtopographic Relief (D4)
_____ Sparsely Vegetated Concave Surface (B8)	_____ FAC-Neutral Test (D5)
_____ Water-Stained Leaves (B9)	
_____ Aquatic Fauna (B13)	
_____ Marl Deposits (B15)	
_____ Hydrogen Sulfide Odor (C1)	
_____ Oxidized Rhizospheres on Living Roots (C3)	
_____ Presence of Reduced Iron (C4)	
_____ Recent Iron Reduction in Tilled Soils (C6)	
_____ Thin Muck Surface (C7)	
_____ Other (Explain in Remarks)	

Field Observations:	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
Surface Water Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0-10"</u>	
Water Table Present? Yes _____ No _____ Depth (inches): _____	
Saturation Present? Yes _____ No _____ Depth (inches): _____	
(includes capillary fringe)	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
 wetland associated with "linear" drainage ditch running to NE from old Lapp Rd.

VEGETATION – Use scientific names of plants.

Sampling Point: 44

Tree Stratum (Plot size: <u>80</u>)		Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>Acer rubrum</u>	<u>3</u>	<input checked="" type="checkbox"/>	<u>FAC</u>
2.	<u>Pinus strobus</u>	<u>1</u>	<input checked="" type="checkbox"/>	<u>FACU</u>
3.				
4.				
5.				
6.				
7.				
		<u>4</u>	=Total Cover	
Sapling/Shrub Stratum (Plot size: <u>5m</u>)		Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>Lonicera japonica</u>	<u>15%</u>	<input checked="" type="checkbox"/>	<u>FAC</u>
2.	<u>Vaccinium corymbosum</u>	<u>1%</u>		<u>FACU</u>
3.				
4.				
5.				
6.				
7.				
		<u>16</u>	=Total Cover	
Herb Stratum (Plot size: <u>1m</u>)		Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>Symplocarpus foetidus</u>	<u>25%</u>	<input checked="" type="checkbox"/>	<u>OBL</u>
2.	<u>Impatiens capensis</u>	<u>10%</u>	<input checked="" type="checkbox"/>	<u>FACU</u>
3.	<u>Oxycoccus sensibilis</u>	<u>5%</u>		<u>FACW</u>
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
		<u>40</u>	=Total Cover	
Woody Vine Stratum (Plot size: _____)		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
			=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 80% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)
Prevalence Index = B/A = _____	

- Hydrophytic Vegetation Indicators:**
- 1 - Rapid Test for Hydrophytic Vegetation
 - 2 - Dominance Test is >50%
 - 3 - Prevalence Index is ≤3.0¹
 - 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
- _____ Problematic Hydrophytic Vegetation¹ (Explain)
- ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes No

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetated but not overwhelmingly so.

