



GUILDERLAND PLANNING BOARD
PLANNING BOARD
P A C K E T
AUGUST 10, 2022
07:00 PM

A G E N D A
GUILDERLAND PLANNING BOARD
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AUGUST 10, 2022
07:00 PM

1. Call to Order

2. Approval of Minutes

3. CONTINUED PUBLIC HEARING. Possible Consideration of Reaffirming the SEQR EIS Findings and Possible Consideration for Site Plan Amendment Approval for the Apex at Crossgates (f/k/a Rapp Road Apartments) for a Previously Approved 222 Unit Multiple-Residence Community - SW Corner Rapp Rd/Gipp Rd - UG Family, LLC

The applicant is proposing to amend the October 28, 2020 approved site plan (formerly known as Rapp Road Apartments) by shifting the two 5-story multiple residence buildings approximately 300 feet to the north and further away from the Westmere Terrace neighborhood. Two of the five 2-story multiple residence buildings will be located on the south side of the project site, a minimum of 150 feet from the property line and Westmere Terrace neighborhood. The applicant has no interest in developing the 90-unit future development site that was analyzed as part of the Environmental Impact Statement and shown on the October 28, 2020 approved site plans, which is why they are shifting the development envelop further to the north. By shifting the 5-story buildings further to the north this will minimize visual impacts from the Westmere Terrace neighborhood. This will also minimize future traffic impacts due to the 90-units not being developed at some point in the future. The existing 200ft wide deed restricted open space area on the north end of the site, existing Karner Blue Hill Preserve and 8.5 acres of full protection area lands adjacent to Rapp Road that will be conveyed to the Pine Bush Preserve will continue to buffer the site from the Rapp Road Historic neighborhood.

All other previously approved on-site and off-site improvements from the October 28, 2020 site plan approval remain the same, such as, but not limited to:

1. The realignment of Rapp Road, connecting to Crossgates Mall Road, to mitigate traffic traveling through the Rapp Road Historic District.
2. Multi-use trails and sidewalks connecting to Crossgates Mall and Western

Avenue from the project site.

3. 20ft tall berm adjacent to Westmere Terrace, with 8ft fence and 8ft to 15ft tall trees on the berm to buffer the development from the Westmere Terrace neighborhood.

4. Additional plantings of 12ft to 15ft tall trees on the existing berm on the western portion of the property, adjacent to the Paden Circle neighborhood.

5. Conveyance of 8.5 acres of Full Protection Area lands in the Pine Bush Preserve to the Pine Bush Preserve Commission.

Attachment: [Town Planner Memo](#)

Attachment: [Apex at Crossgates Plans Revised 2022--08--08.pdf](#)

Attachment: [Westmere Terrace Cul-de-Sac Plan Revised 2022--08--08.pdf](#)

Attachment: [LaBella Response to GPI Review Comments 2022--08--08.pdf](#)

Attachment: [LaBella Response to Delaware Eng Comments - 2022--08--08.pdf](#)

Attachment: [Apex at Crossgates Site Plan Application rev.pdf](#)

Attachment: [October 28, 2020 -- Rapp Road Residential Site Plan Approval.pdf](#)

Attachment: [Apex at Crossgates Long EAF.pdf](#)

Attachment: [Apex at Crossgates Project Narrative.pdf](#)

Attachment: [Before and After Study 6.29.2022 1_.pdf](#)

Attachment: [Apex at Crossgates Before and After Study Narrative 2022.06.29.pdf](#)

Attachment: [Line of Sight Profile - Westmere Terrace.pdf](#)

Attachment: [220628_RPR_The Apex at Crossgates Traffic Letter.pdf](#)

Attachment: [2022--07--01 Confirmation of Placard Postings.pdf](#)

Attachment: [2022--06--28 - Apex at Crossgates Site Plan Amendment SEQR Lead Agency City of Albany.FINAL.pdf](#)

Attachment: [2022--06--30 - Apex at Crossgates Site Plan Amendment SEQR Lead Agency DEC.FINAL.pdf](#)

Attachment: [2022--06--30 - Apex at Crossgates Site Plan Amendment SEQR Lead Agency Pine Bush.FINAL.pdf](#)

Attachment: [2022--06--30 - Apex at Crossgates Site Plan Amendment SEQR Lead Agency SHPO.FINAL.pdf](#)

Attachment: [2022--06--30 - Apex at Crossgates Site Plan Amendment SEQR Lead Agency USFWS.FINAL.pdf](#)

Attachment: [2022--06--30 - Apex at Crossgates Site Plan Amendment SEQR Lead Agency Albany County DPW.FINAL.pdf](#)

Attachment: [October 28, 2020 Rapp Road Residential Site Plan Approval - Findings Statement.pdf](#)

Attachment: [July 31, 2020 EIS Findings Statement - Rapp Road Residential, Western Avenue Mixed Use Redevelopment Projects.FINAL.pdf](#)

Attachment: [October 28, 2020 Rapp Road Residential Approved Site Plan.pdf](#)

Attachment: [CDTA Comments Apex at Crossgates.pdf](#)

Attachment: [USFWS SEQR Letter 2022--07--19.pdf](#)

Attachment: [Pine Bush Preserve Commission_APEX_Comment July 12 2022.pdf](#)

Attachment: [SHPO SEQR Coordinated Review Comments Apex at Crossgates.pdf](#)

Attachment: [2022--08--03 GPI Letter re traffic and cul de sac.pdf](#)

Attachment: [August 10 2022 Apex at Crossgates Altamont Enterprise Legal Notice.pdf](#)

Attachment: [Delaware Engineering Apex Review-08-03-2022.pdf](#)

Attachment: [Apex at Crossgates SWPPP 2022--08--08.pdf](#)

Attachment: [ACPB Recommendations- Apex at Crossgates - 222 Unit Multiple Residence Community.pdf](#)

Attachment: [Pine Bush Preserve Commission Comments 2022--08--09 re traffic mitigation.pdf](#)

4. Consideration of Concept Plan Approval for a 3 Lot Minor Subdivision - 1854 Western Avenue - Laviano Properties, LLC

The applicant is proposing a 3 lot minor subdivision of 1.2 acres +/- of land located in the Single-family Residential (R15) District. Parcel A would consist of 0.45 acres of land and has frontage on Western Avenue. Parcel B would consist of 0.35 acres of land and has frontage on Hanes Street. Parcel C would

consist of 0.35 acres of land and would have frontage on Hanes Street. Public water and sewer are available to the property. The application will be referred to the Albany County Planning Board for their August 18, 2022 meeting.

In the applicant's minor subdivision application it states the proposed Western Ave lot (Parcel A) may be requested to amend the zoning from the current R15 District to the Local Business (LB) District. The change in zone request would be handled via a separate application in which the Town Board would be the lead agency.

Attachment: [1854 Western Ave Minor Sub Application.pdf](#)

Attachment: [1854 Western Ave Minor Subdivision Plan.pdf](#)

Attachment: [1854 Western Ave Project Narrative.pdf](#)

Attachment: [1854 Western Ave SEQR EAF.pdf](#)

5. Project Update. Consideration of Adopting a SEQR Negative Declaration for a 3 Lot Minor Subdivision - 6256 Gardner Road - 6256 Gardner Road, LLC
- The applicant is proposing a 3 lot subdivision of 81.5 acres of land located in the Rural Agricultural (RA3) District. Lot 1 would consist of 9.56 acres of land with a proposed single-family dwelling. Lot 2 would consist of 9.42 acres of land with a proposed single-family dwelling. Lot 3 would consist of 62.47 acres of land would remain undeveloped.

Attachment: [6256 Gardner Road Subdivision Plans - Revised](#)

Attachment: [6256 Gardner Road Overall Plan](#)

Attachment: [Gardner Rd. Aerial 8.09.22.pdf](#)

Attachment: [Gardner Rd. Render 8.09.22.pdf](#)

Attachment: [6256 Gardner Road Minor Subdivision Application](#)

Attachment: [6256 Gardner Road Planning Board Letter](#)

Attachment: [6256 Gardner Road SEQR EAF](#)

Attachment: [6256 Gardner Road Grading Plan 1](#)

Attachment: [6256 Gardner Road Grading Plan 2](#)

Attachment: [6256 Gardner Road Detail Sheet 1](#)

Attachment: [6256 Gardner Road Detail Sheet 2](#)

Attachment: [6256 Gardner Road Detail Sheet 3](#)

Attachment: [6256 Gardner Road Erosion and Sediment Control Plan](#)

Attachment: [SHPO EffectFindingNoImpact July 11 2022.pdf](#)

Attachment: [February 28 2022 USFWS Letter.pdf](#)

Attachment: [June 13 2022 DEC Fish and Wildlife Letter.pdf](#)

Attachment: [ACPB Recommendations.pdf](#)

Attachment: [GCAC Report - 6256 Gardner Road.pdf](#)

Attachment: [NCES Letter - Endangered and Threatened Species Evaluation.pdf](#)

6. Other Business

7. Adjournment

TOWN OF GUILDERLAND

Peter G. Barber
Supervisor

Kenneth Kovalchik, AICP
Town Planner

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**M E M O R A N D U M**

TO: Stephen J. Feeney, Chairman
& Town Planning Board

FROM: Kenneth Kovalchik, AICP, Town Planner

DATE: August 3, 2022

SUBJ: Apex @ Crossgates Update – UG Family, LLC

Background

The applicant is proposing to amend the October 28, 2020 approved site plan (formerly known as Rapp Road Apartments) by shifting the two 5-story multiple residence buildings approximately 300 feet to the north and further away from the Westmere Terrace neighborhood. Two of the five 2-story multiple residence buildings will be located on the south side of the project site, a minimum of 150 feet from the property line and Westmere Terrace neighborhood. The applicant has no interest in developing the 90-unit future development site that was analyzed as part of the Environmental Impact Statement and shown on the October 28, 2020 approved site plans, which is why they are shifting the development envelop further to the north. By shifting the 5-story buildings further to the north this will minimize visual impacts from the Westmere Terrace neighborhood. This will also minimize future traffic impacts due to the 90-units not being developed at some point in the future. The existing 200ft wide deed restricted open space area on the north end of the site, existing Karner Blue Hill Preserve and 8.5 acres of full protection area lands adjacent to Rapp Road that will be conveyed to the Pine Bush Preserve will continue to buffer the site from the Rapp Road Historic neighborhood.

All other previously approved on-site and off-site improvements from the October 28, 2020 site plan approval remain the same, such as, but not limited to:

1. The realignment of Rapp Road, connecting to Crossgates Mall Road, to mitigate traffic traveling through the Rapp Road Historic District.
2. Multi-use trails and sidewalks connecting to Crossgates Mall and Western Avenue from the project site.
3. 20ft tall berm adjacent to Westmere Terrace, with 8ft fence and 8ft to 15ft tall trees on the berm to buffer the development from the Westmere Terrace neighborhood.

Visit the Town of Guilderland Website at <http://www.townofguilderland.org>

4. Additional plantings of 12ft to 15ft tall trees on the existing berm on the western portion of the property, adjacent to the Paden Circle neighborhood.
5. Conveyance of 8.5 acres of Full Protection Area lands in the Pine Bush Preserve to the Pine Bush Preserve Commission.

Apex @ Crossgates SEQR Coordinated Review Update

The Town conducted a SEQR coordinated review with the same agencies as the original site plan review for the Rapp Road apartments. A list of those agencies are as follows:

1. NYSDEC
2. NYS Historic Preservation Office
3. City of Albany
4. US Fish and Wildlife Service
5. Albany County Department of Public Works
6. Pine Bush Preserve Commission

In addition to the agencies listed above, the Town also referred the Apex @ Crossgates site plan amendment application to the Albany County Planning Board (ACPB), with the application being reviewed at their July 21st meeting. The following is a summary of agency comments and Town response to agency comments:

NYSDEC

No comments received.

City of Albany

No comments received.

Albany County Department of Public Works

No comments received.

NYS Historic Preservation Office (SHPO)

In a letter dated July 28, 2022 SHPO provided the following comments:

The site plan amendment indicates that the traffic pattern alternative (Alternative 9) has not changed. Our office previously expressed our concerns with any aspect of the project that would continue to increase traffic along the National Register listed Rapp Road Community Historic District. According to John Bonafide's August 12, 2020, effect finding letter for this project:

"We have reviewed the included Appendix 26 that provided a series of access alternatives. Our office continues to find that adding any additional traffic to Rapp Road will be detrimental to the district. We further believe that the current levels of traffic through the district are adverse and should be reduced as part of this major new undertaking at Crossgates. As such, any alternative that does not terminate Rapp Road (upper and lower) as a through-street between Washington Avenue (via Frontage Street) and the Crossgates Ring Road will have an adverse impact upon the district."

The amended proposal for Site 1 does not change our previous assessment of the project. Because the traffic pattern remains as previously proposed, we continue to have concerns, and it is the opinion of the OPRHP that the proposed project will have an Adverse Effect to historic resources....adverse impacts/ effects must be addressed, and avoided or mitigated as part of the permitting process.

Town Response:

1. Regarding SHPO's comment that "any alternative that does not terminate Rapp Road (upper and lower) as a through-street between Washington Avenue (via Frontage Street) and the Crossgates Ring Road will have an adverse impact upon the district." Numerous traffic mitigation options, which included terminating Rapp Road, were considered as part of the Environmental Impact Statement (EIS) process and included in the Findings Statement adopted by the Planning Board in July 2020.

The traffic mitigation options included: Alternative 1 – Eastern Bypass; Alternative 2 – Western Bypass 1; Alternative 3 – Western Bypass 2; Alternative 5 – No through access south of Gipp Road (emergency access only); Alternate 5A – Terminating Rapp Road at Pine Lane and Gipp Road; Alternate 5C – Closure of Rapp Road south of Gipp Road; and Alternate 5D – deadend the northern section of Rapp Road.

For various reasons for each of the traffic mitigation options listed above were not supported by review agencies such as the City of Albany and Pine Bush Preserve Commission, or were not supported by the residents in the Rapp Road Historic District or were not supported by emergency service agencies in the City of Albany and Town of Guilderland. For these reasons the Planning Board selected Alternative 9 as the best traffic mitigation option to reduce traffic through the Rapp Road Historic District to the maximum extent practicable.

2. Regarding SHPO's comment that "because the traffic pattern remains as previously proposed, we continue to have concerns, and it is the opinion of the OPRHP that the proposed project will have an Adverse Effect to historic resources....adverse impacts/ effects must be addressed, and avoided or mitigated as part of the permitting process."

Traffic impacts through the Rapp Road Historic District will be mitigated and were addressed during the preparation of the EIS and during the Apex @ Crossgates site plan amendment review. During the EIS process the Planning Board used the services of GPI, Town Designated Engineer (TDE) for the traffic review. In a letter dated October 7, 2020 GPI reviewed the estimated traffic diversions that would result in implementation of Alternative 9, the Rapp Road realignment. The diversion summary concluded:

"This alternative could potentially divert 30 - 65 existing vehicles through the historic district during the Weekday Peak AM, Weekday Peak PM and Saturday Peak Hours and reduce the number of vehicles from the proposed residential and proposed Costco development by 13 – 28 vehicles."

GPI stated “we feel the applicants ‘Diversion Summary’ presents a reasonable and conservative estimate of the traffic diversions that could occur with the implementation of the modified Alternative No 9.

For the Apex @ Crossgates site plan amendment the applicant provided a letter dated June 28, 2022 from Colliers Engineering, which stated:

“Colliers Engineering and Design has reviewed the Project Summary dated June 3, 2022 prepared by LaBella, the modified Apex at Crossgates Site Plan (06.03.22), and the approved Site Plan for the Rapp Road Residential Project and has determined that there will be no significant, if any, traffic and transportation related impacts with the proposed modifications. It should be noted that the EIS also analyzed a potential future development area for an additional 90-units as part of a subsequent phase, which now will not be developed. The total number of units will remain at 222, the same as previously approved. In addition, with the modified layout there will be more open space provided, less impervious surface, and would result in less traffic than previously analyzed with the potential future development. The proposed Project and modifications are consistent with the traffic findings of the DEIS and FEIS.”

The Planning Board is using the services of GPI, Town Designated Engineer (TDE), who reviewed the Apex @ Crossgates and Colliers Engineering letter for the Apex @ Crossgates project, and provided the following comments in a letter dated August 3, 2022:

“Based on our review, the changes to the site plan will have minimal impact on traffic operations compared to the originally approved configuration.”

“By spreading out the buildings on-site, the area previously reserved for future development has been removed. This reduces the overall future trip generation potential of the site.”

“The new layout shifts the southern site driveway closer to the Crossgates Mall Rd and Rapp Rd signalized intersection. However, with the diversion of existing Rapp Rd traffic along this road segment, which is currently planned and approved, this approach to the traffic signal will see greatly reduced traffic volumes and queues, compared to existing conditions. As a result, the driveway shift will have minimal impact on traffic operations and should not be an issue.”

“Overall, GPI concurs with the findings of the Collier review letter and find that the new site configuration will generate no additional impact on the transportation system than the originally approved site plan.”

Albany Pine Bush Preserve Commission (APBPC)

In a letter dated July 12, 2022 the APBPC stated:

“It appears that the amended site plan provides for a slightly reduced development footprint, while retaining all the offsetting measures previously committed by the applicant and detailed in the DEIS, FEIS and SEQR Findings Statement”

“In conclusion, the revised site plan appears consistent with earlier APBPC comment. The APBPC appreciates the Town of Guilderland’s and the applicant’s efforts to support creating and managing a viable preserve while balancing conservation and economic development interests.”

Town Response:
Comments noted.

US Fish and Wildlife Service (USFWS)

In a letter dated July 19, 2022 the USFWS stated:

“Any take of the northern long-eared bat that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o). Unless the Service advises you within 30 days of the date of this letter that your IPaC-assisted determination was incorrect, this letter verifies that the Action is not likely to result in unauthorized take of the northern long-eared bat.”

Town Response:
Comments noted.

Albany County Planning Board (ACPB)

The ACPB reviewed the Apex @ Crossgates application at their July 21, 2022 meeting, with a recommendation to modify local approval to include:

1. *The Albany County Planning Board acknowledges the Town response provided for the previous Rapp Road Apartment recommendation. The Rapp Road Residential Site Plan Findings Statement refers to Alternative 9 as an option for traffic mitigation that discourages traffic from using the southern section of Rapp Road as a means to travel through the middle and northern sections of Rapp Road and Rapp Road Historic District. Rapp Road is proposed to be terminated near the intersection of Rapp Road/ Gipp Road on the Town of Guilderland side of the municipal boundary with the City of Albany. The proposed connector between the Crossgates Mall Ring road by the Macy's lot and Rapp Road makes terminating Rapp Road ineffective.*

Town Response:
Traffic impacts through the Rapp Road Historic District will be mitigated and were addressed during the preparation of the EIS. During the EIS process the Planning Board used the services of GPI, Town Designated Engineer (TDE) for the traffic review. In a letter dated October 7, 2020 GPI reviewed the estimated traffic diversions that would result in implementation of Alternative 9, the Rapp Road realignment. The diversion summary concluded:

"This alternative could potentially divert 30 - 65 existing vehicles through the historic district during the Weekday Peak AM, Weekday Peak PM and Saturday Peak Hours and reduce the number of vehicles from the proposed residential and proposed Costco development by 13 – 28 vehicles."

GPI stated "we feel the applicants 'Diversion Summary' presents a reasonable and conservative estimate of the traffic diversions that could occur with the implementation of the modified Alternative No 9.

2. *A revised Stormwater Pollution Prevention Plan that is consistent with the requirements included in the New York State Department of Environmental Conservation SPDES General Permit for Stormwater Discharges (GP-0-20-001, January 29, 2020)) for construction activities that disturb more than one acre of land is required since the site plan amendment includes considerable changes to the development.*

Town Response:

The Planning Board is using the services of Delaware Engineering, Town Designated Engineer (TDE), who are currently reviewing the updated SWPPP for the Apex @ Crossgates project. There is approximately ¼ acre less disturbance associated with the Apex @ Crossgates site plan as compared to the previously approved Rapp Road Apartments site plan.

3. *The traffic resulting from the development would still be detrimental to Rapp Road Historical District. The vegetation buffer only screens the development visually but does not mitigate traffic concerns.*

Town Response:

This is a statement and not a recommendation.

See ACPB comment #1 above related to traffic mitigation.

The applicant's traffic engineer, Colliers Engineering and Design, reviewed the amended Apex @ Crossgates site plan and provided a letter to the Planning Board dated June 28, 2022 stating:

"Colliers Engineering and Design has reviewed the Project Summary dated June 3, 2022 prepared by LaBella, the modified Apex at Crossgates Site Plan (06.03.22), and the approved Site Plan for the Rapp Road Residential Project and has determined that there will be no significant, if any, traffic and transportation related impacts with the proposed modifications. It should be noted that the EIS also analyzed a potential future development area for an additional 90-units as part of a subsequent phase, which now will not be developed. The total number of units will remain at 222, the same as previously approved. In addition, with the modified layout there will be more open space provided, less impervious surface, and would result in less traffic than previously

analyzed with the potential future development. The proposed Project and modifications are consistent with the traffic findings of the DEIS and FEIS.”

The Planning Board is using the services of GPI, Town Designated Engineer, who reviewed the Apex @ Crossgates and Colliers Engineering letter for the Apex @ Crossgates project, and provided the following comments in a letter dated August 3, 2022:

“Based on our review, the changes to the site plan will have minimal impact on traffic operations compared to the originally approved configuration.”

“By spreading out the buildings on-site, the area previously reserved for future development has been removed. This reduces the overall future trip generation potential of the site.”

“The new layout shifts the southern site driveway closer to the Crossgates Mall Rd and Rapp Rd signalized intersection. However, with the diversion of existing Rapp Rd traffic along this road segment, which is currently planned and approved, this approach to the traffic signal will see greatly reduced traffic volumes and queues, compared to existing conditions. As a result, the driveway shift will have minimal impact on traffic operations and should not be an issue.”

“Overall, GPI concurs with the findings of the Collier review letter and find that the new site configuration will generate no additional impact on the transportation system than the originally approved site plan.”

4. *The local fire department should be notified to evaluate for public safety, emergency services access, water availability and any sprinkler system that may be required by building code as well as the adequacy of the ingress and egress for emergency services.*

Town Response:

The Town and the United Group have already been communicating with the Westmere Fire District regarding their comments on the project.

5. *Review by the Albany County Department of Health for water supply, waste water discharge, and other required permits.*

Town Response:

In a letter dated February 11, 2022 the Town Department of Water and Wastewater provided a letter to the applicant for the previously approved Rapp Road Apartments project stating, “the Town of Guilderland has the capacity, and will provide water and sewer services for the as depicted in the DEIS Rapp Road Residential/Western Avenue Mixed Use Redevelopment Project.”

The ACPB provided the following Advisory Comments:

1. *The Albany County Planning Board advises the Town and the developer to incorporate mass transit concept into turn-around with landscaping and include bus shelters at both entrances of the proposed parking in order to tie the project into Transit Oriented District.*

Town Response:

The Town Highway Department and Westmere Fire District reviewed this portion of Rapp Road in detail and their recommendations are reflected in the previously approved Rapp Road Apartment site plan and proposed Apex @ Crossgates site plan.

2. *The ACPB also advises the Town and the developer to consider working out an alternative with the Pine Bush Preserve Commission to possibly drive the traffic out of the Rapp Road Historic District.*

Town Response:

The Planning Board discussed multiple traffic mitigation alternatives with the Pine Bush Preserve Commission as part of the preparation of the EIS to mitigate traffic traveling through the Rapp Road Historic District. The traffic mitigation options included:

Alternate 1 – Eastern Bypass

Was not identified as an acceptable alternative in the EIS as a result of traffic impacts and environmental concerns. Alternative 1 would relocate the existing travel corridor through the Rapp Road Historic District by terminating Rapp Road just north of Pine Lane. North-south commuter and project related traffic on Rapp Road would be re-routed to a new road located east of several houses in the Rapp Road Historic District. (the “Eastern By-Pass”) effectively relocating traffic from their front yards to their backyards. The Eastern By-Pass would be constructed in Area 62, a parcel adjacent to the Karner Blue Butterfly migration corridor and designated as requiring “Full Protection” under the Albany Pine Bush Management Plan

The Rapp Road Historic District and Albany Pine Bush Preserve Commission opposed implementation of Alternative 1. The City’s only preferred alternative (the Eastern By-Pass) has been evaluated and determined, on balance, to potentially cause more environmental harm, such as bisecting the existing Karner Blue Butterfly Corridor with a new road, at higher speeds, which has the additional negative impact of more noise impacts, than this Alternative might provide. It also would eliminate the proposed conveyance of 8.4 acres of land to the Albany Pine Bush Preserve Commission by the Applicant to create an expanded Karner Blue Butterfly corridor area, which is considered to be another environmental negative of this Alternative.

Alternate 2 – Western Bypass & Alternate 3 – Western Bypass 2

Alternate 2 would redirect traffic from Gipp Road, via a newly constructed road, to Frontage Road (adjacent to Washington Avenue Ext) through Pine Bush Preserve Full Protection Area and lands in a Protection Agreement/Easement with the Pine Bush Preserve Commission.

Alternate 3 would redirect traffic from Gipp Road, via a newly constructed road, to Columbia Circle Drive (adjacent to Washington Avenue Ext) through Pine Bush Preserve Full Protection Area and lands in a Protection Agreement/Easement with the Pine Bush Preserve Commission.

Alternate 2 and 3 were not supported by the Pine Bush Preserve Commission.

3. *The Albany County Planning Board requests CDTA to extend the upcoming Purple Line to the turn-around as advised above to allow residents who would potentially live in the development to have access to the CDTA Purple Line. This would tie in with the goals of a Transit Oriented District.*

Town Response:

CDTA has been actively involved with the Planning Board since the preparation of the EIS and has multiple comment letters on file supportive of the Town's efforts to increase ridership and improve services.

In a letter dated March 9, 2022 the CDTA stated:

"Our team is working with Pyramid on their roadway design/intersection design associated with the proposed development. New bus stops at/near the intersection of Rapp Road and Crossgates Mall Road will improve access to our services. In addition, we are offering Pyramid the option to join our Universal Access program to allow tenants with free access to our transit network – further increasing transit use and reducing traffic volumes."

In a letter dated May 12, 2020 CDTA stated:

"The CDTA has worked closely with the Town of Guilderland to create clear guidelines on how to improve traffic and transit near Crossgates Mall. CDTA has enjoyed working with Town officials and well as regional and business leaders to study transit issues in the area and determine best practices for future improvements. This planning and forward thinking by Town officials helps to coordinate the needs of the community with the desire for responsible future development and safe transit."

In a letter dated July 14, 2022 CDTA stated:

"We greatly appreciate the efforts made to include multi-modal access to this property. Since CDTA would be adding a stop to serve this location, we ask for a few changes to the plan:

1. Move the proposed CDTA stop further north (closer to the intersection) to shave a hundred feet off residents walking distance.
2. Provide for a stop eastbound on Crossgates Mall Road (immediately after the intersection with Rapp Road) so residents can also catch Route #10 to transfer at Crossgates Station when the Purple Line is launched.
3. Widen the multi-use path to twelve feet, which is the standard width for a bi-directional shared use path according to the NYSDOT Highway Design Manual.
4. Add more bike racks for residents who want to bike to Crossgates Station."

Next Steps

The public hearing from the July 13th Planning Board meeting will be continued to the August 10th meeting. GPI has provided traffic review comments and indicated they have no issues with the applicant addressing the Westmere Terrace cul de sac comments as a condition of site plan amendment approval, which would be contingent upon Town Highway Superintendent approval.

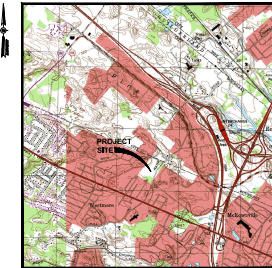
Delaware Engineering is currently reviewing the updated stormwater plan and based on a preliminary review indicated they will have no issues with the applicant addressing any review comments as a condition of site plan amendment approval. If no new issues arise the Planning Board may consider taking action on reaffirming the previously adopted EIS and may consider taking action on the site plan amendment approval at your August 10th meeting.

THE APEX AT CROSSGATES

TOWN OF GUILDERLAND, ALBANY COUNTY, NY

JULY 29, 2022

INDEX OF DRAWINGS				
PAGE NO.	REV	SHEET NO.	DATE	DESCRIPTION
1	0	0001	07/29/02	TITLE SHEET
2	0	C100	07/29/02	EXISTING CONDITIONS & DEMOLITION PLAN
3	0	C110	07/29/02	OVERALL SITE PLAN
4	0	C130	07/29/02	SITE PLAN
5	0	C140	07/29/02	GRADING & DRAINAGE PLAN
6	0	C150	07/29/02	EROSION & SEDIMENT CONTROL PLAN
7	0	C160	07/29/02	UTILITY PLAN
8	0	C180	07/29/02	LANDSCAPE & LIGHTING PLAN
9	0	C181	07/29/02	DETILED LANDSCAPE PLAN
10	0	C330	07/29/02	SITE DETAILS
11	0	C531	07/29/02	SITE DETAILS
12	0	C540	07/29/02	STORM SEWER DETAILS
13	0	C541	07/29/02	STORM SEWER DETAILS
14	0	C550	07/29/02	EROSION & SEDIMENT CONTROL DETAILS
15	0	C560	07/29/02	WATER SYSTEM DETAILS
16	0	C570	07/29/02	SANITARY SEWER SYSTEM DETAILS
17	0	C580	07/29/02	LANDSCAPE DETAILS & NOTES



DEVELOPER / APPLICANT:
UD FAMILY, LLC
300 JORDAN ROAD
TROY, NY 12180

SITE CIVIL ENGINEER AND LANDSCAPE ARCHITECT
LARELLA ASSOCIATES
4 BRITISH AMERICAN BOULEVARD
LATHAM, NY 12110

TAX MAP INFORMATION:
TOWN OF GUILDERLAND
SECTION 52.05, BLOCK 3, LOT 3
SECTION 52.05, BLOCK 3, LOT 4
SECTION 52.05, BLOCK 3, LOT 4
SECTION 52.05, BLOCK 3, LOT 5
SECTION 52.10, BLOCK 1, LOT 2

AREA:
TOTAL ACREAGE : 19.68 ACRES

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518-439-8235
labella.com

It is a violation of New York Education Law Article 145 (Sec. 2706), for any person, who is acting under the direction of a licensed architect, professional engineer, or land surveyor, to alter or alter in any way, if it then bears the seal of an architect, engineer, or land surveyor is altered, the altering architect, engineer, or land surveyor shall affix to the item their seal and notation "altered by" followed by their signature and date of such alteration, and a specific description of the alteration.

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UG FAMILY, LLC
AN AFFILIATE OF THE UNITED GROUP OF COMPANIES
300 JORDAN ROAD, TROY, NY 12180



THE APEX AT CROSSGATES
RAPP ROAD
TOWN OF GUILDERLAND, NY 12203

NO.	DATE	ORDER NO.
PROJECT NUMBER: 2222678		
DRAWN BY:		
FORWARDED BY:		
ISSUED FOR: SITE PLAN APPROVAL		
DATE: 07/29/22		
DRAWING NAME:		

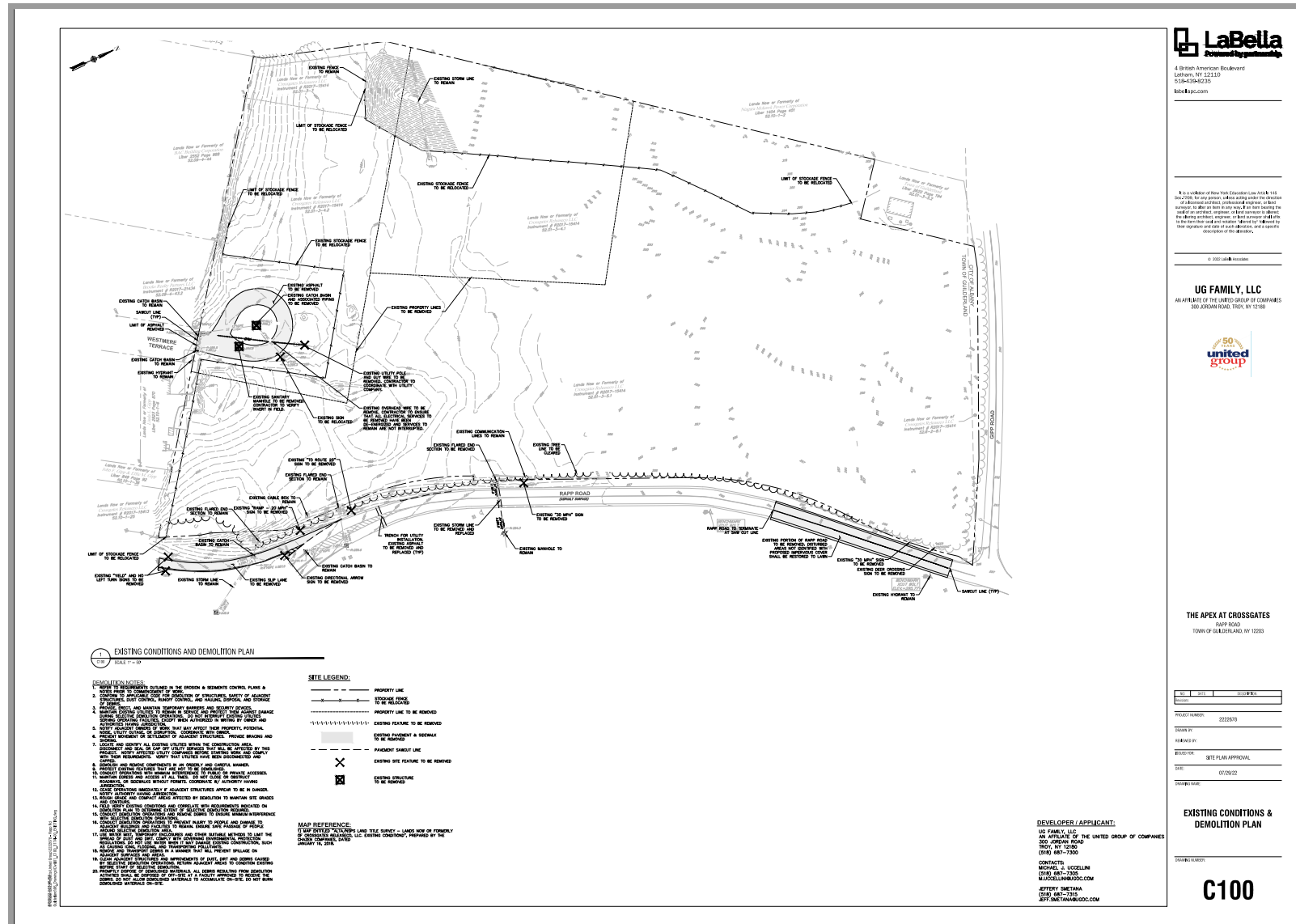
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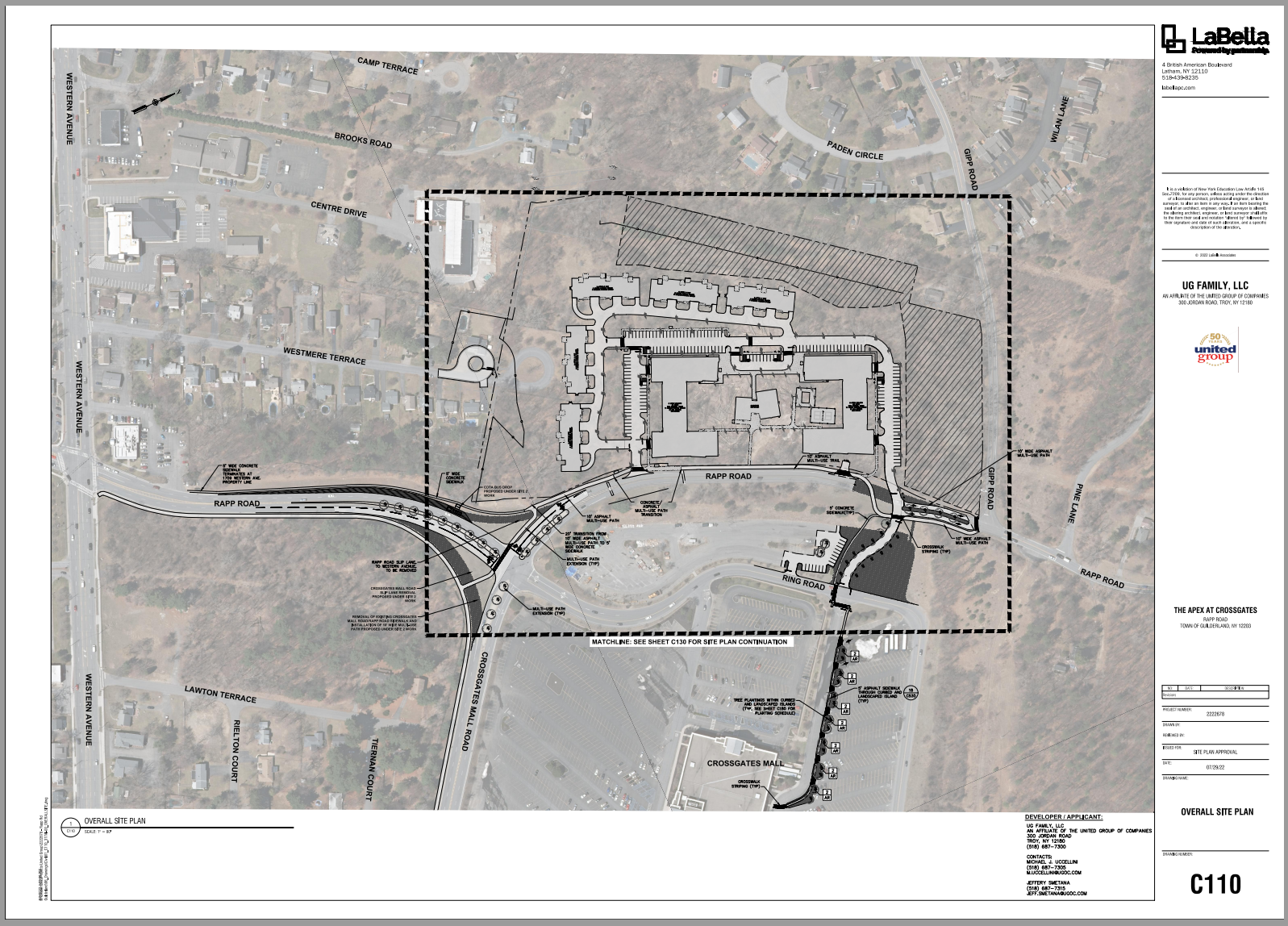
DEVELOPER / APPLICANT:
UG FAMILY, LLC
AFFILIATE OF THE UNITED GROUP OF COMPANIES
300 JORDAN ROAD
TROY, NY 12180
(518) 687-7300

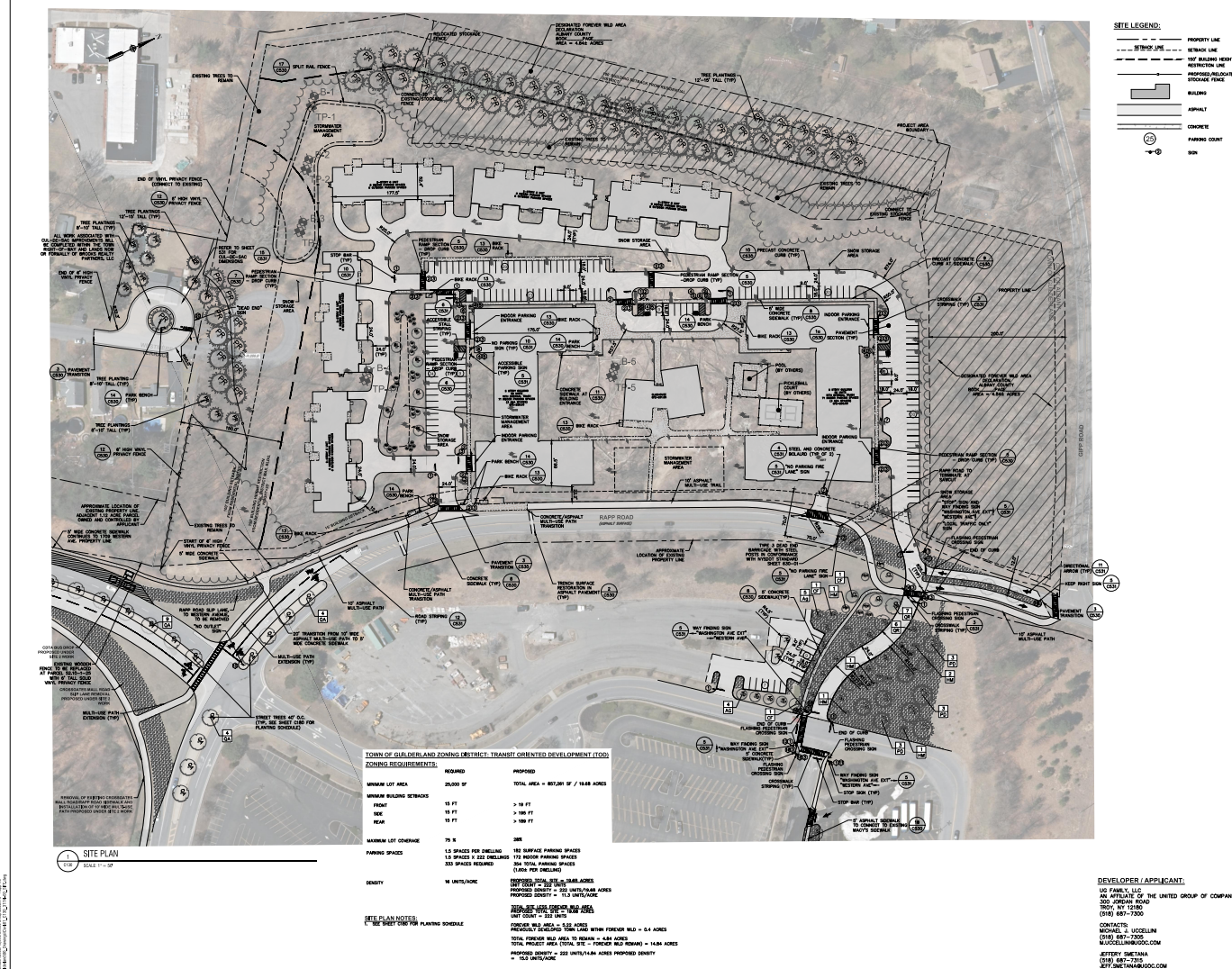
CONTACT:
MICHAEL J. UCCELLINI
(518) 687-7305
M.UCELLINI@UGOC.COM

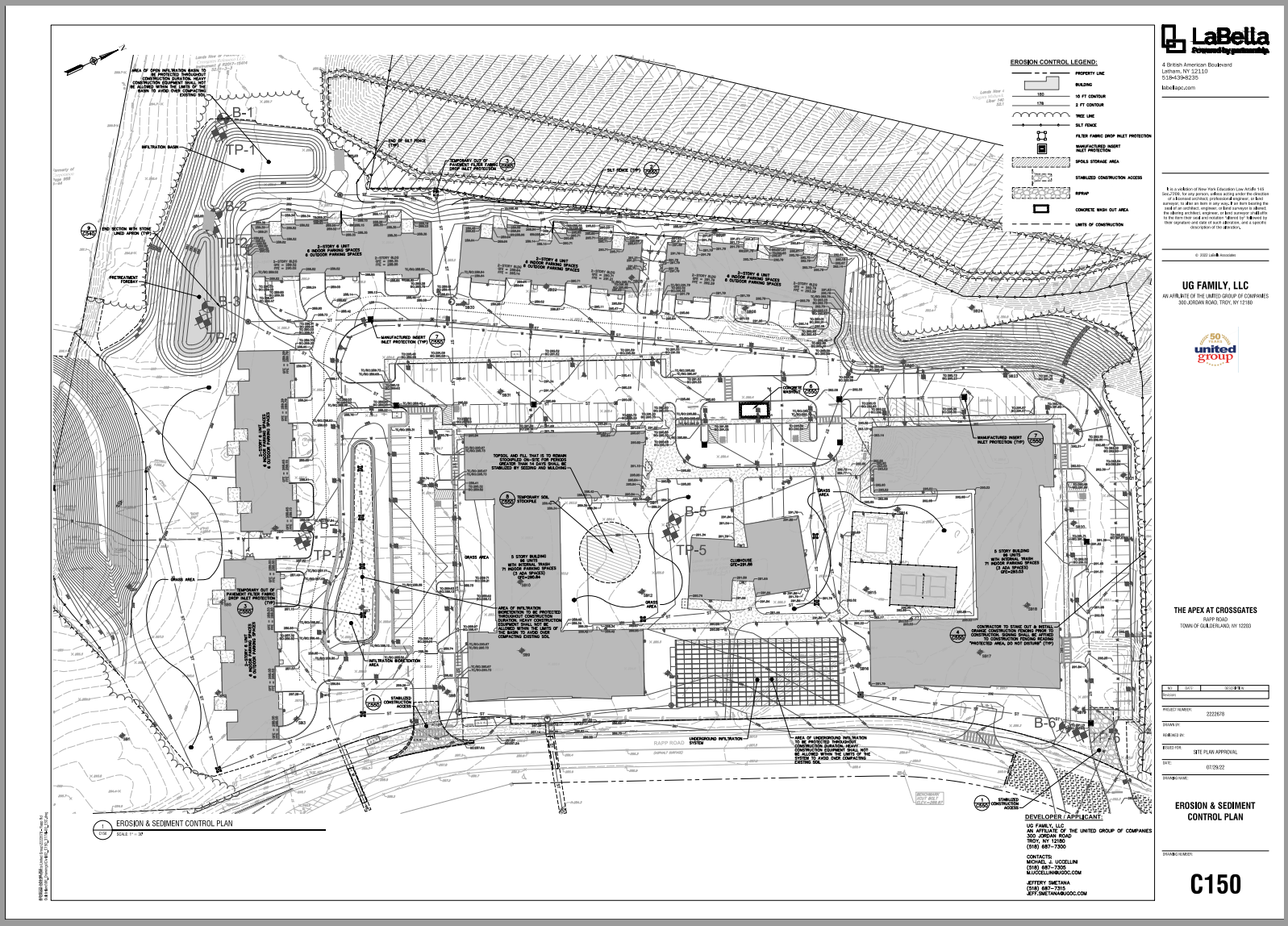
JEFFERY SMETANA
(518) 687-7315
JEFF.SMETANA@UGOC.COM

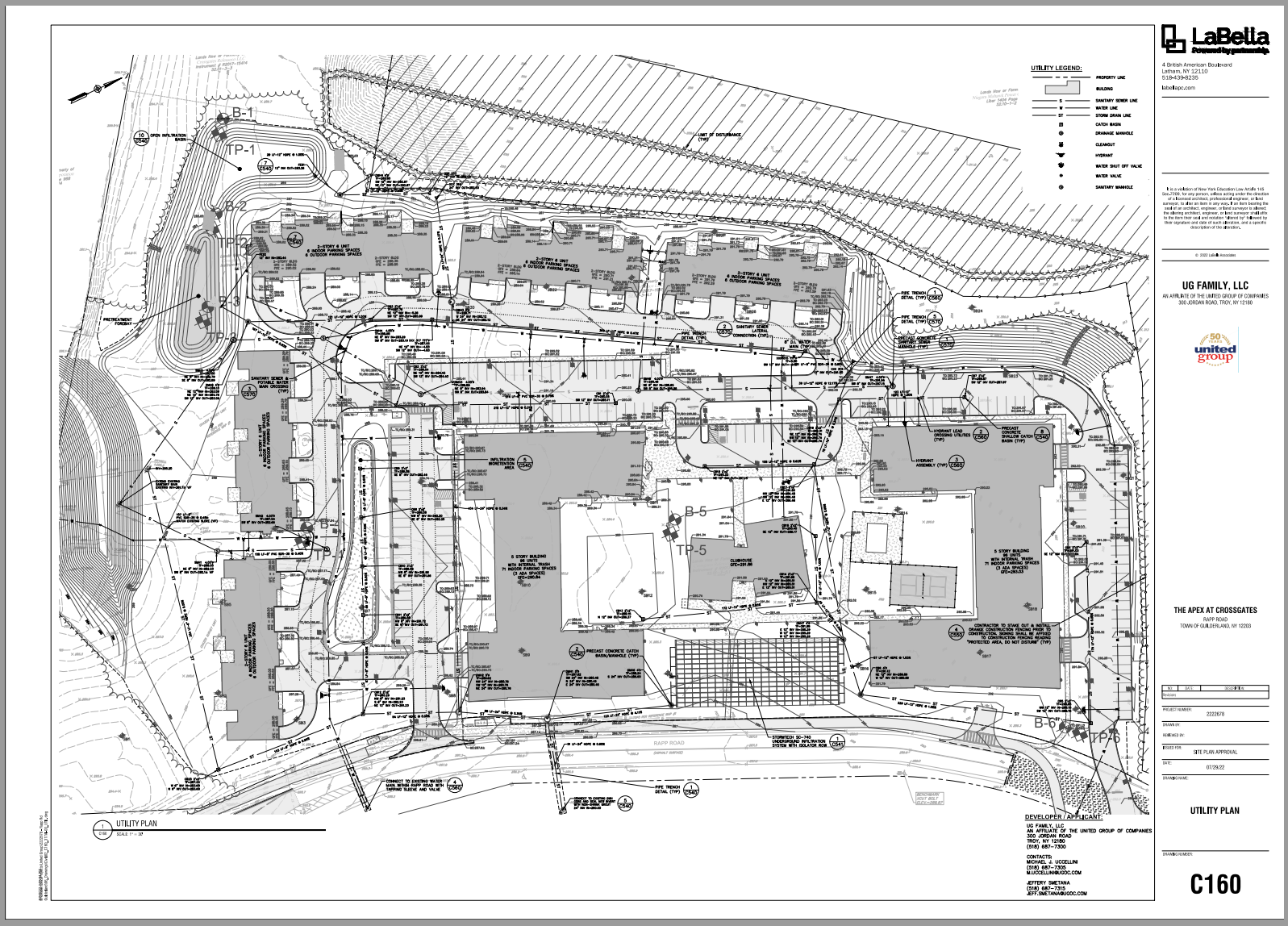
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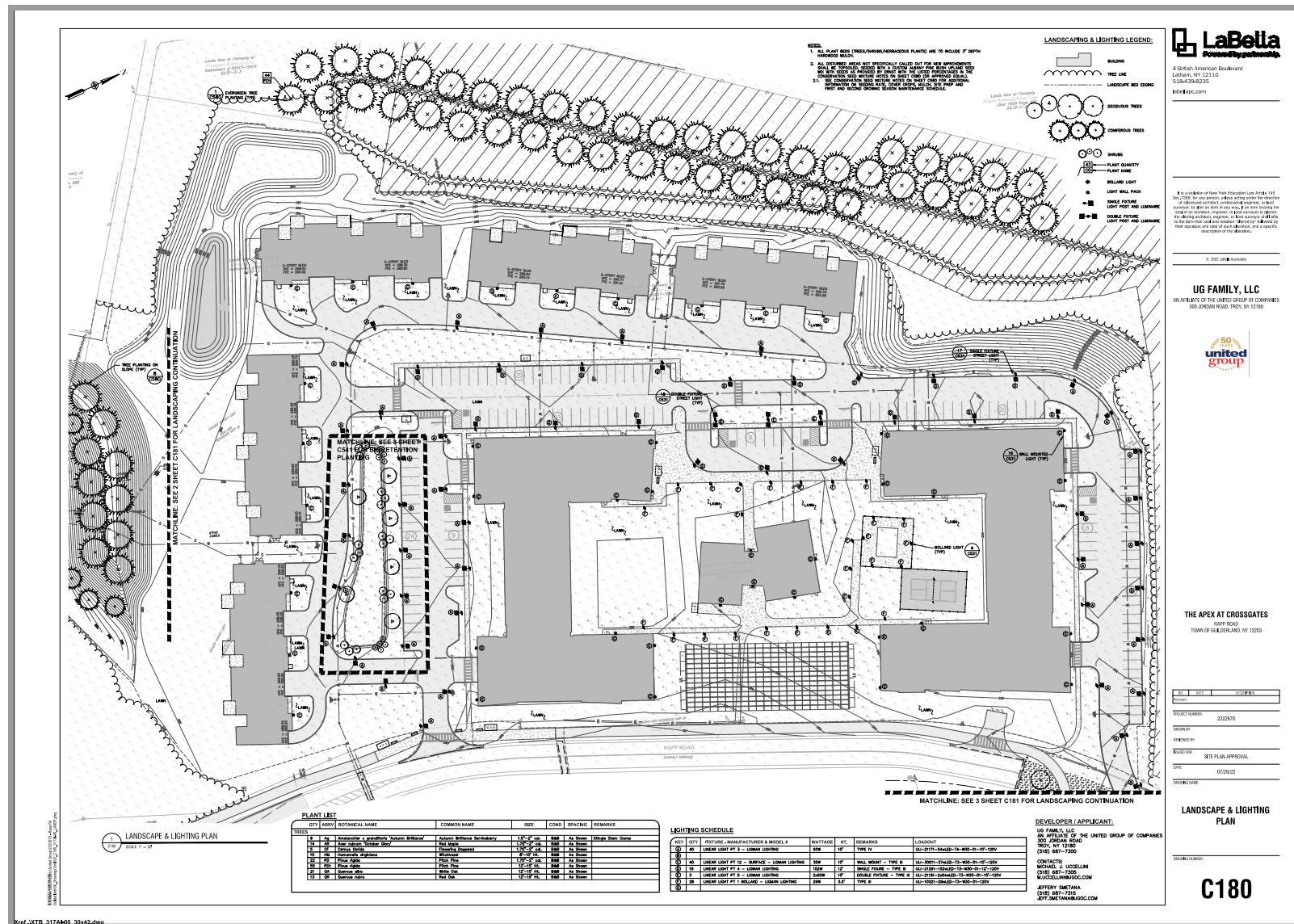




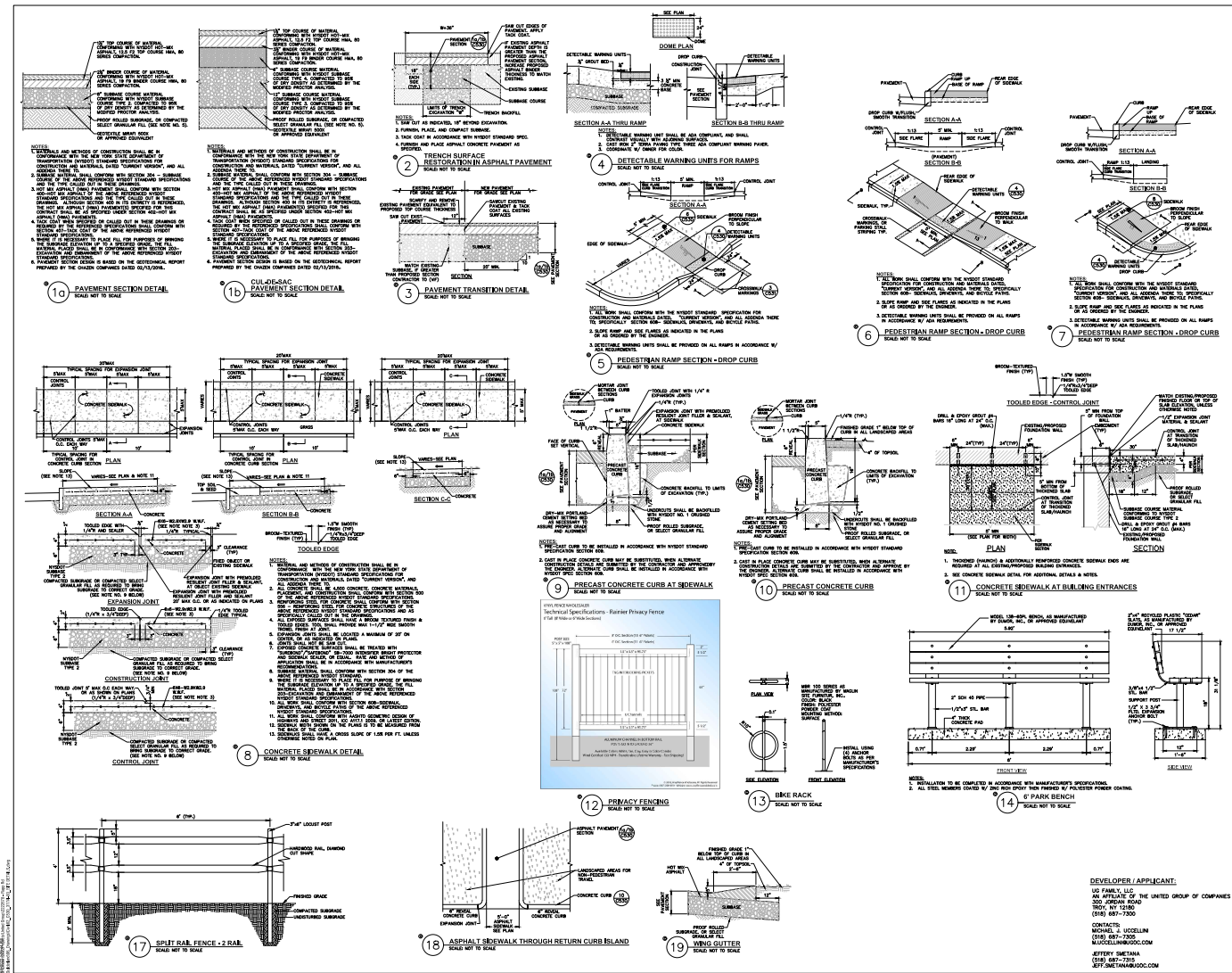












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As a member of New York State's Capital Law Firm, LaBella is proud to be a part of the team that is helping to build a better future for New York State. We are committed to providing the highest quality legal services to our clients and to the state of New York.

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300 JORDAN ROAD, SUITE 1200
JERSEY CITY, NJ 07310

united group
50th Anniversary
1970-2020

THE APEX AT CROSSGATES
6667 ROAD
TOWN OF GULF OAK, FL 32020

PROJECT NUMBER: 2227679
DATE: 07/28/22
REVISIONS:

DESIGNED BY: SITE PLAN APPROVAL
DATE: 07/28/22
APPROVED BY:

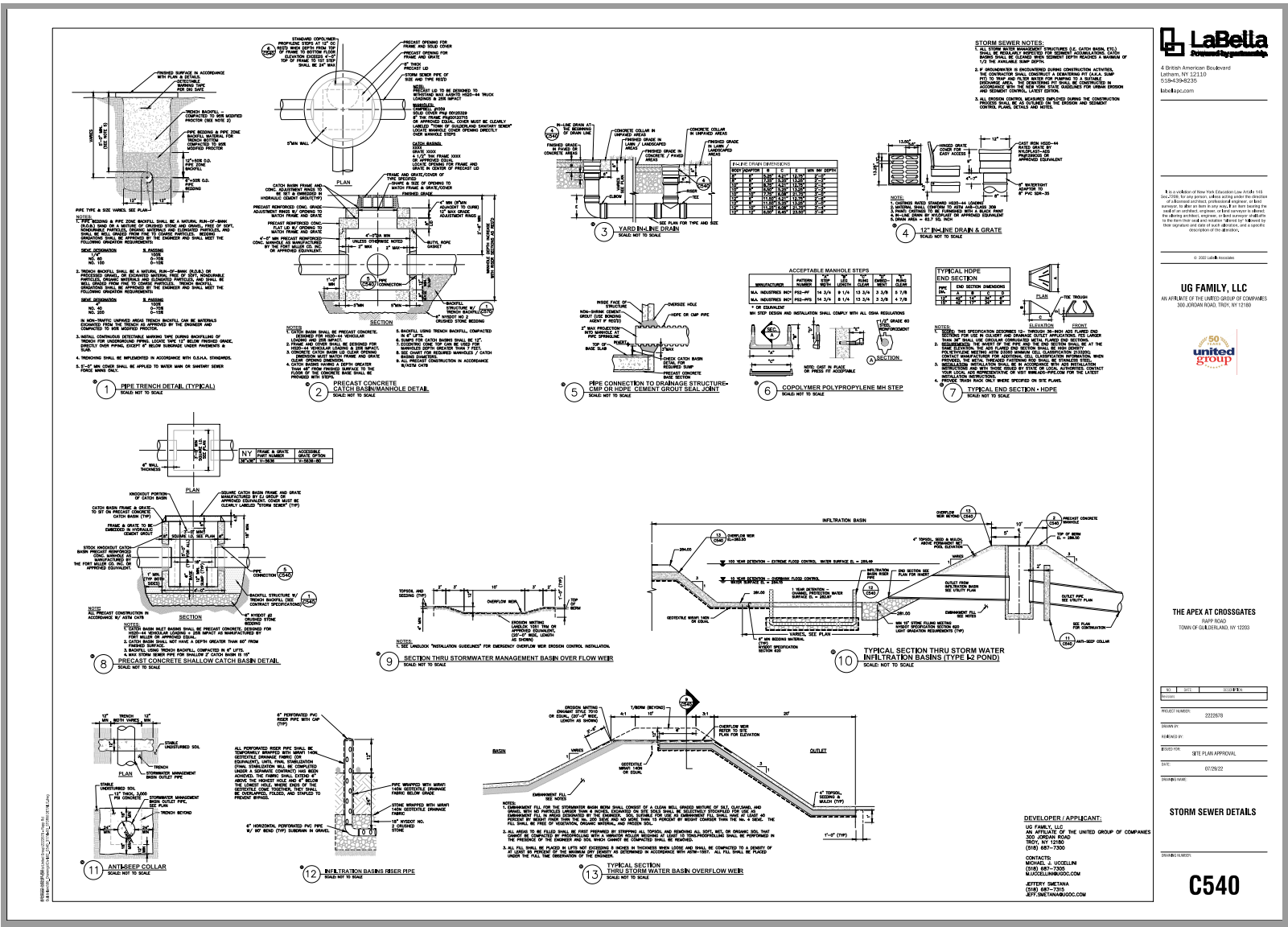
SITE DETAILS

DEVELOPER / APPLICANT:
UG FAMILY, LLC
AN AFFILIATE OF THE UNITED GROUP OF COMPANIES
300 JORDAN ROAD
SUITE 1200
JERSEY CITY, NJ 07310
(973) 687-7300

CONTACTS:
MICHAEL J. UCCILLI
(973) 687-7300
MUCCILLI@UGOC.COM
JERRY CHETMAN
(973) 687-7310
JCHETMAN@UGOC.COM

C530





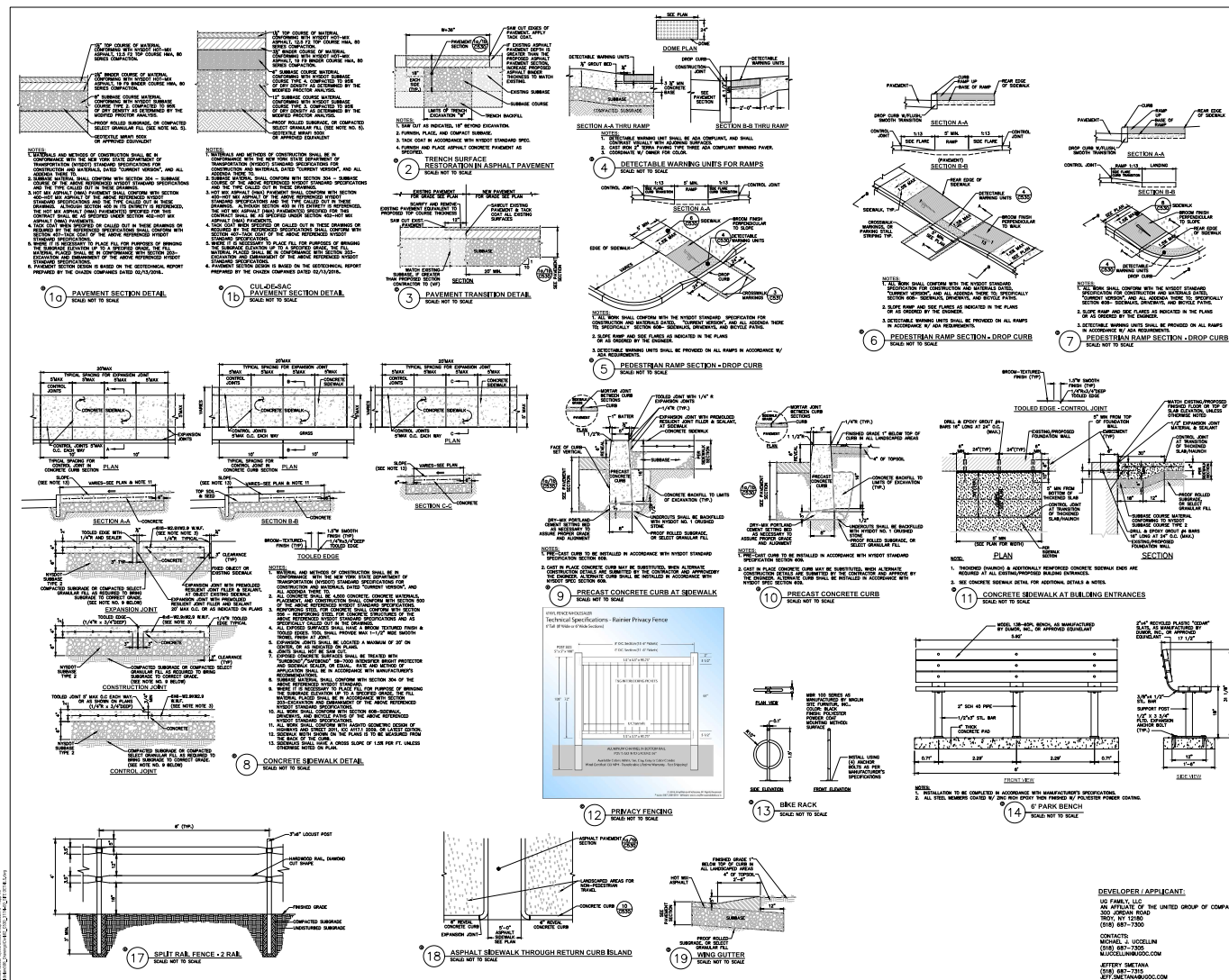


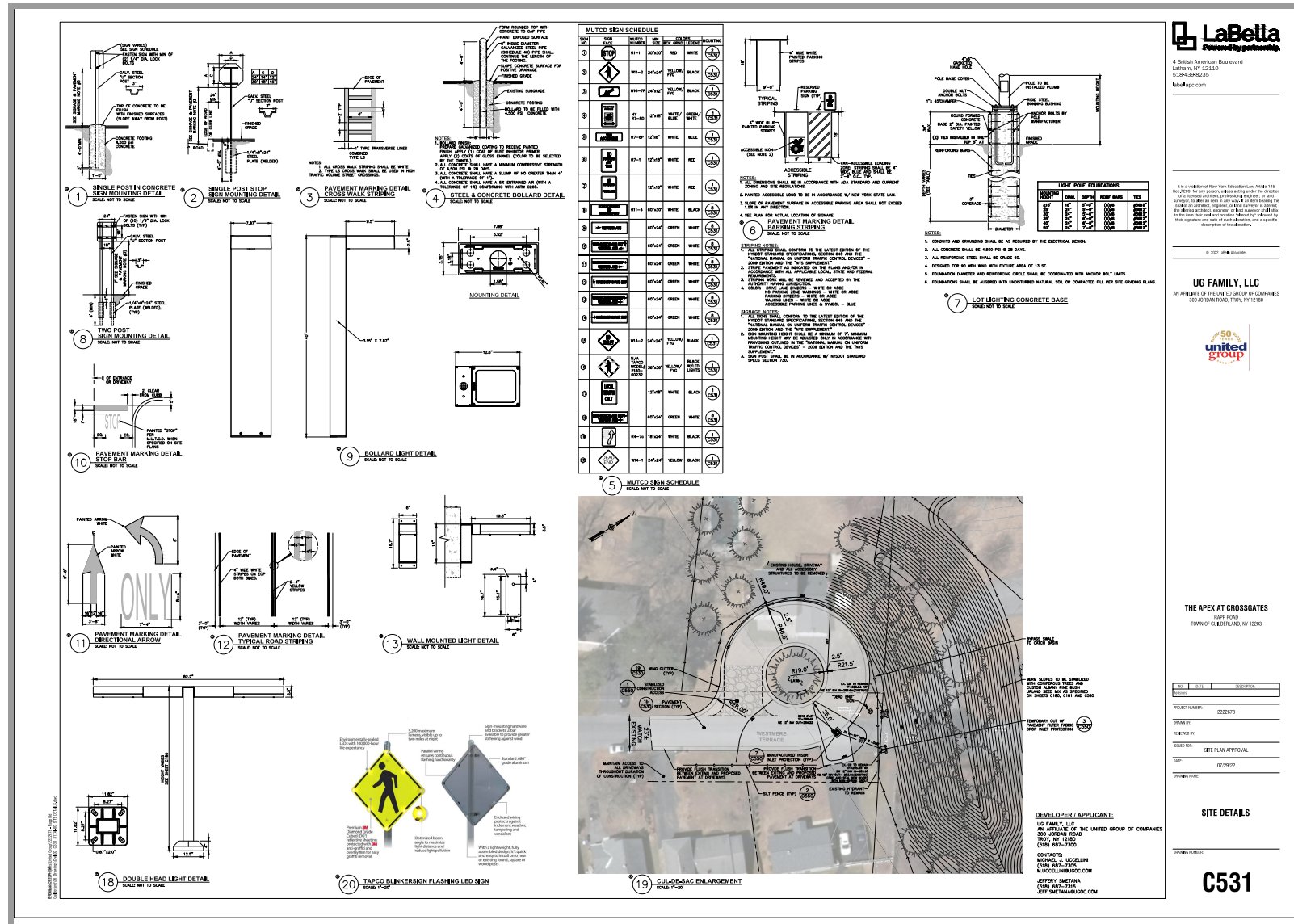




C570

Planning Board - PACKET - (Page 31 of 477)







August 8, 2022

Mr. Kenneth Kovalchik, Town Planner
Town of Guilderland
Town Hall, Route 20
Guilderland, NY 12084

RE: The Apex at Crossgates

Dear Mr. Kovalchik:

LaBella Associates has received the following comments from Greenman-Pedersen, Inc. (GPI) concerning the above noted project, and offer the following point-by-point responses:

1. *A north arrow is needed on Detail 19 (the plan view of the cul-de-sac)*

Response: A north arrow has been added to the detail on sheet C531.

2. *The provided pavement section does not match the Town of Guilderland standard road section detail. The following items were found to be inconsistent from the Town's standards:*

- a. *The pavement top course and binder course materials do not match the materials in the Town detail; however, they appear to be acceptable due to updated/current material standards from the NYSDOT.*
- b. *Town standard required 5" minimum of asphalt while only 4" total is proposed.*
- c. *The proposed subbase section does not meet Town standards for materials and depth. LaBella is proposing 8" of Type 2 subbase when the Town standard calls for 6" of Type 4 with 12" of Type 3 subbase material below that.*

Response: Detail 1b on sheet C530 has been added to provide a separate pavement section for the cul-de-sac meeting the Town of Guilderland requirements.

3. *There are two existing driveways affected by the proposed cul-de-sac improvements (not including the removed driveway). One of the driveways is shown as partially repaved, while the other has improvements along the proposed wing edge curb. The plans should include a note to ensure there is a flush transition between the existing and proposed pavement surfaces.*

Response: A note has been added to the cul-de-sac enlargement.

4. *It is unclear what the proposed groundcover is within the cul-de-sac island. If grass turf is planned, the existing asphalt driveway needs to be removed entirely.*

Response: Grass is proposed within the cul-de-sac island. A note has been added to the enlargement indicating that the existing driveway is to be removed.

5. *The proposed catch basin structure needs to include invert information for both the proposed and existing structures. Additionally, the pipe connection between the structures should include material, size and slope information on the plan.*

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Response: Invert information has been added to the proposed and existing storm structures. Pipe size and materials have also been specified.

6. *It is recommended a bypass swale be graded in along the toe of the berm's slope to direct runoff to the existing catch basin and minimize water sheeting into the roadway.*

Response: A note has been added to the plans specifying a bypass swale along the toe of the berm to the catch basin.

7. *There are low hanging wires across the existing utility poles that may impact emergency or trash vehicles' ability to use the cu-de-sac as a turnaround. Additionally, the proposed berm does not appear to take the overhead wire location into account and may present a conflict.*

Response: The height of the existing wires to remain are consistent with the height of the wires that cross the existing cul-de-sac. Therefore, no conflicts are anticipated between the wires and emergency or trash vehicles. Additionally, the existing wires that would cross the proposed berm will be removed as indicated on the Existing Conditions & Demolition Plan.

8. *The corner radius where the cul-de-sac meets the roadway is shown as 25'. This should be updated to min. 28' radius as suggested by the International fire code.*

Response: The radius has been updated to 28'.

9. *The Applicant should ensure that the proposed cul-de-sac still allows for adequate access to the existing fire hydrant from the pavement limits.*

Response: A note has been added to the enlargement specifying where the existing hydrant to remain is located. No access issues are anticipated.

10. *The plan does not appear to include any erosion and sediment control measures. The Applicant will need to show adequate erosion and sediment control measures for the proposed cul-de-sac work.*

Response: Erosion and sediment control measures have been added to the cul-de-sac enlargement including silt fence, inlet protection and a stable construction access.

11. *The berm's slope is shown as 2:1 and appears to be filled over existing grade. The Town's grading requirement do not allow for fill slopes to be steeper than 3:1.*

Response: Berm was graded at 2:1 as part of the previous approval to allow for the top of berm to be closer to the end of the Cul-De-Sac in response to providing a visual barrier to the residents on Westmere Terrace. We have concerns with adjusting the berm to 3:1 which would push the top of berm away from Westmere Terrace and potentially reducing the visual barrier.

12. *A detail should be provided for the wing edge curb construction as there does not appear to be one included on the plans.*

Response: Detail 19 on sheet C530 has been added for the proposed wing gutter.

13. *The Applicant should identify the new location of the dead-end sign that currently exists at the end of the cul-de-sac.*

Response: The new location of the dead-end sign has been added to the cul-de-sac enlargement.



14. *It is unclear if municipal sanitary sewer service is located on Westmere Terrace and if any changes will be required based on the roadway reconfiguration.*

Response: No changes to the existing sanitary sewer service on Westmere Terrace will be required.

We feel that we have adequately addressed the comments. Your attention to this matter is greatly appreciated. If you have any questions or require additional information, please contact me at 518-439-8235 or rkeating@labellapc.com.

Sincerely,

Roger E. Keating, PE, LEED AP BD+C
Sr. Civil Engineer, Regional Leader



August 08, 2022

Mr. Kenneth Kovalchik, Town Planner
Town of Guilderland
Town Hall, Route 20
Guilderland, NY 12084

RE: The Apex at Crossgates

Dear Mr. Kovalchik:

LaBella Associates has received the following comments from Delaware Engineering, D.P.C. concerning the above noted project, and offer the following point-by-point responses:

1. *Please provide justification for the use of "fair" and "poor" conditions for ground cover CN values when calculating the predevelopment conditions or revise the HydroCAD model and use "good" conditions values for the assessment.*

Response: The fair and poor conditions for the ground cover were determined early on in the design process when the property was evaluated for stormwater management. Many areas on the project site had trees that were dropped, and the central portion of the site was being used for landscape debris with areas of more compacted soils. In speaking with Delaware Engineering regarding this comment they asked that we revise any areas identified as poor to be changed to fair as a conservative measure. We have revised the modeling to reflect this condition.

2. *Please remove the Bioretention Media and the Drainage Stone volumes from the BIO1 node in the HydroCAD model. Including these two volumes in the model allows stormwater to enter and fill those volumes before filling the ponding volume.*

Response: The Bioretention Media and Drainage Stone volumes have been removed from the Bio1 node in the HydroCAD model.

3. *It appears that the Bioretention area in the HydroCAD model has four horizontal grate outlets at 286.08', however, the plans show two horizontal grates at 286.08' and two at 286.63'. Please review.*

Response: The grates in the bioretention have been revised to all be at elevation 286.20'.

4. *The exfiltration outlet for the Infiltration Basin node in the HydroCAD model should be revised to only allow exfiltration across the bottom of the infiltration basin. Please revise.*

Response: Per the soil testing results, a constant velocity of 12 in/hr is the expected infiltration rate across the bottom of the infiltration basin. Multiplying this rate by the bottom area of the basin (3,192 sf) gives a constant flow rate of 0.89 cfs. This rate was applied to the basin in the model instead of the 12 in/hr in order to only model the exfiltration flow through the bottom of the infiltration basin, without including any exfiltration through the forebay area.

5. *Please clearly label the Infiltration Basin Overflow Weir on the plans.*

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Response: The overflow weir has been labeled on the provided grading plan.

6. *Please include herbaceous plants, that will be planted across the bottom of the Bioretention Area, in the plant schedule. Seeding the bottom of the bioretention area is not acceptable due to the hardwood mulch per the design.*

Response: The planting schedule has been updated for the bio-retention to align with the Pine Bush species list.

7. *Please include a pea stone diaphragm detail in the plans.*

Response: Detail 7 has been added to sheet C541.

We feel that we have adequately addressed the comments. Your attention to this matter is greatly appreciated. If you have any questions or require additional information, please contact me at 518-439-8235 or rkeating@labellapc.com.

Sincerely,

Roger E. Keating, PE, LEED AP BD+C
Sr. Civil Engineer, Regional Leader

TOWN OF GUILDERLAND

CHECKLIST FOR SITE PLAN REVIEW

RETURN TO:
PLANNING DEPARTMENT
Attn: Town Planner

PO BOX 339, 5209 Western Tpk.
GUILDERLAND, NY 12084
(518) 356-1980

FEES:

COMMERCIAL - \$300

RESIDENTIAL - \$50

(Payable at time of submittal
to Town of Guilderland
Credit Cards not Accepted)

APPLICANT INFORMATION:

Name: UG Family, LLC
Address: 300 Jordan Road
Troy, NY **Zip:** 12180
Daytime Phone #: 518-687-7300
Email: m.uccellini@ugoc.com
Date: June 17, 2022

PROPERTY INFORMATION:

Owner: GABELRY Development, LLC
Location: Rapp Road, Guilderland, NY
Tax Map #: 52.01-3-3; 52.01-3-4.1;
52.01-3-4.2; 52.01-3-5.1; 52.10-1-25
Zoning: TOD
Acreage: 19.68 acres

TO BE SUBMITTED:

1. 10 copies of application form
2. 10 copies of SEQRA form
3. Copy of conditional purchase contract or rental agreement if applicable
4. 10 copies of plat plan **FOLDED** which should include: side, front and rear setbacks, all existing buildings, location of proposed construction, total size of parcel, elevations, parking layout, lighting layout, sidewalks and monuments, street and curb cuts, sanitary system and water course, drainage system, delineated wetlands, planting and green area plans including fencing/buffer area boundaries.

OTHER AGENCY APPROVALS IF REQUIRED:

1. Town Water and Wastewater Management – 456-6474
2. Town Highway Department – 861-5108
3. NYS Department of Transportation – 765-2841
4. Albany County Health Department – 447-4631
5. Albany County Planning Board – 447-5660
6. NYS DEC Region IV – 357-2069
7. Pine Bush Commission – 464-6496

PLANNING BOARD
TOWN OF GUILDERLAND
ALBANY COUNTY, NY

SITE PLAN APPLICATION APPROVAL

RAPP ROAD DEVELOPMENT, LLC
222 APARTMENT/TOWNHOUSE STYLE UNITS WITH 3,900 SQ FT OF COMMERCIAL SPACE



PROJECT DESCRIPTION: The Applicant proposes 192 apartment units and 30 townhouse style units, along with 3,900 square feet of commercial space within the apartment buildings, on 19.68 +/- acres located in the Transit Oriented Development (TOD) District. The site is located on the west side of Rapp Road, southwest of the intersection of Gipp Road and Rapp Road. Two 5-story apartment buildings are proposed on the east side of the site and three 2-story townhouse style buildings are proposed on the west side of the property. A total of 333 parking spaces are required and the applicant is proposing to install 362 parking spaces (278 surface parking spaces and 84 indoor parking spaces).

DATE OF APPEARANCE: October 14, 2020 & October 28, 2020

☐ WAIVED

☐ NOT RECOMMENDED for the following reasons:

☐ RECOMMENDED WITH THE FOLLOWING: ☐ suggestions ☐ conditions

☒ APPROVED with the following conditions:

(X) Town Designated Engineer approval

(X) Town Highway Superintendent approval (for any proposed work in the town highway right-of-way.)

(X) Town Water & Wastewater Superintendent approval. Sewer mitigation fee to be determined by the Water & Wastewater Department (with sewer hook-up application).

(X) NYS Department of Transportation approval (for any work in NYS R-O-W)

(X) \$500 per dwelling unit – park & recreation fund (with building permit application)

(X) Other:

A. Prior to signing of the site plan:

Rapp Road Residential Site Plan Approval October 28, 2020

1. The Applicant shall file in the Albany County Clerk's Office the approved lot line amendment map and metes and bounds description showing the merger of tax id # 52.01-3-5.1; 52.01-3-4.1; 52.01-3-4.2; 52.10-1-25 and 52.01-3-3. The Applicant should contact the Town Assessor to obtain an address and tax id for the parcel being created. The new address shall be included on the lot line amendment map. A copy of the filing receipts shall be provided to the Planning Department.
- B. Prior to the issuance of a Building Permit:*
1. The Applicant shall obtain a highway work permit from the Town Highway Department for any work proposed within the Town right-of-way.
 2. The Applicant shall obtain a highway work permit from New York State DOT Region 1 for any work proposed within the DOT right-of-way.
 3. The Applicant shall provide the Town with a completed NYSDEC MS4 SWPPP Acceptance Form and a copy of the executed Notice of Intent (NOI) that will be submitted to NYSDEC for SPDES coverage under GP-0-15-002.
- C. Prior to any Land Disturbance Occurring on the Site:*
1. Orange construction fencing is required to be installed to delineate the limits of disturbance as identified on the Erosion and Sediment Control Plan (Sheet 6 of 17). Necessary land disturbance is permitted that would provide access to accomplish the installation of the construction fencing. Upon completing the construction fence installation, the Applicant shall provide to the Town a letter from a Professional Engineer or Surveyor certifying the orange construction fencing was installed in accordance with the area shown on the Erosion and Sediment Control Plan (Sheet 6 of 17).
 2. The Applicant shall obtain any necessary permit coverage required by NYS Department of Environmental Conservation under GP-0-15-002 and other relevant department required permits. A copy of the acknowledgement of NOI for SPDES coverage shall also be provided to the Town prior to commencement of site work.
 3. Appropriate insurance coverage as deemed necessary by the Town of Guilderland or the State of New York shall be obtained prior to the start of any work contemplated by this Approval and proof of such coverage in the form of a "Certificate of Insurance" shall be filed with the Office of the Building Inspector and/or appropriate office of the State of New York. The Town of Guilderland shall be named an additional insured.
- D. Prior to any construction taking place on Site 1:*
1. The Applicant shall install a new cul-de-sac and the 20-foot high berm including all landscaping/tree plantings as shown on the Site Plan (Sheet 4 of 17) on the south side of the site, adjacent to the Westmere Terrace neighborhood.
 2. The Applicant shall install 12' to 15' tall tree plantings as shown on the Site Plan (Sheet 4 of 17) on the existing berm on the west side of the site, adjacent to the Paden Circle neighborhood.

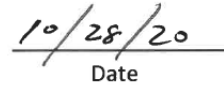
3. The 6-foot high solid panel vinyl fence depicted on the site plans shall be constructed in all locations to further mitigate to the maximum extent practicable visual and noise impacts to surrounding existing residential uses.

E. Prior to the Issuance of a Certificate of Occupancy (including temporary or partial):

1. The Applicant shall construct all roadway, sidewalk and multi-use path improvements as shown on the Overall Site Plan not associated with construction on site 2.
2. Street trees and other planting materials shall be installed by the Applicant in accordance with the approved Landscape Plan (Sheet 8 and 9 of 17). All street trees and landscaping within the Town right-of-way shall be maintained by the Applicant. No Certificate of Occupancy (C.O.) shall be issued for any building where the required surrounding plant materials have not been installed, unless said C.O. is applied for during the non-planting season. The Building Inspector may at his/her discretion withhold the issuance of additional Building Permits within the development unless all required plant materials are installed by the next available planting season for all buildings having a Certificate of Occupancy.
3. The Applicant shall provide a performance bond (or other acceptable security) to the Town of Guilderland, in a form acceptable to the Town and in an amount acceptable to the Town Designated Engineer, to guarantee the installation of street trees and other landscaping materials as shown on the approved Landscape Plan (Sheet 8 of 17), and their replacement in the event of non-survival for a period of one (2) years from the date of issuance of a Certificate of Occupancy for the lot on which they are located.
4. The Applicant shall install a pump station on Crossgates Mall property to divert the proposed Rapp Road residential project flows from the Dillenbeck Pump Station to the Nott Road Pump Station.
5. The Applicant shall construct all public water, sanitary sewer, and storm water basin facilities, and convey all such facilities and grant all easements for any of these facilities proposed to be conveyed to the Town, as shown on the site plan.
6. The Applicant shall provide the Town a maintenance bond to ensure that the storm water management areas have been properly maintained and prepared by the Applicant prior to the transfer of their maintenance responsibility to the Town. The amount of said bond shall be determined by the Town Designated Engineer.
7. The Applicant shall provide the Town with easements for any portion of the multi-use trail and/or sidewalk located outside the Town right-of-way and for such other activities for which the Town may need easements and at such other locations as may be required by the Town.
8. The Applicant shall convey the 8.4 acres of lands proposed to be dedicated to the Albany Pine Bush Preserve.

- F. Construction of stormwater management areas that will be conveyed to the Town shall be monitored by the Town Designated Engineer. Prior to Town acceptance and use of the storm water facilities, the Applicant shall provide certification from an engineer, and reviewed by the Town Designated Engineer, that the storm water management facilities have been constructed in accordance with the approved plans.
- G. The Applicant shall avoid removal of on-site mature trees near the southern property boundary unless necessary for building development and site improvements so that these existing mature trees will act as a natural buffer to existing residential uses on Westmere Terrace.
- H. Construction trailer(s) shall be located to maintain a minimum distance of 250 feet from any residential dwellings throughout the construction process.
- I. All construction traffic shall enter/exit the site from Rapp Road, with the following exceptions: (1) removal of the existing residential structure at 28 Westmere Terrace (tax id # 52.09-4-43.2); (2) removal of the existing cul-de-sac on Westmere Terrace and installing the new cul-de-sac location; and (3) installation of the berm on the south side of the site.
- J. Construction hours for building construction and site work on the site near Westmere Terrace shall be between 7:00 AM and 5:00 PM, Monday through Friday and 9:00 AM to 4:00 PM on Saturday with no construction activities on Sundays or holidays (New Year's Day, Memorial Day, July 4, Labor Day, Thanksgiving and Christmas).
- K. In rendering its decision to approve this site plan application, the Planning Board has considered the standards of §280-53(H) of the Town Zoning Law, the applicable design standards of §280-39(C) of the Town Zoning Law and the decision criteria contained in Section §280-53(I) of said law, and hereby adopts the annexed Site Plan Approval Findings Statement.


Planning Board Chairman


Date

NOTE: Expiration of Approval

A final site plan containing the conditions imposed by the Planning Board in the site plan approval shall be submitted, within 30 days of the filing of the Planning Board decision, to the Zoning Inspector for review of compliance with the site plan approval. Unless provided

otherwise in the site plan decision, any imposed condition shall be satisfied before issuance of a building permit.

A site plan approval or amendment to site plan approval shall become null and void unless a certificate of occupancy is obtained within two years of the filing of the decision granting site plan approval or, by conditions in the site plan approval, a greater or lesser time is specified as a condition of approval, or unless the approval, upon good cause shown, is extended for a period of no more than one year.

Full Environmental Assessment Form
Part 1 - Project and Setting

Instructions for Completing Part 1

Part 1 is to be completed by the applicant or project sponsor. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either "Yes" or "No". If the answer to the initial question is "Yes", complete the sub-questions that follow. If the answer to the initial question is "No", proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the applicant or project sponsor to verify that the information contained in Part 1 is accurate and complete.

A. Project and Applicant/Sponsor Information.

Name of Action or Project: The Apex at Crossgates		
Project Location (describe, and attach a general location map): Rapp Road, Guiderland, NY (Tax Map # 52.01-3-5.2; 52.01-3-5.11; 52.06-2-8.1; 52.09-4-43.2)		
Brief Description of Proposed Action (include purpose or need): The Apex at Crossgates will provide 222 Class A rental units, including 192 apartments over a first level parking garage, plus 30 townhomes with private garages. In addition the site includes a 6,500 square foot clubhouse, outdoor pool, and recreation space. The Apex will have a lighted and landscaped walking path to the adjacent Crossgates Mall, as well as sidewalk connections to the nearby CDTA bus stop and to Western Avenue. The 222 residential units will remain consistent with the previously approved site plan and the amount of surface parking will be reduced because some parking will be moved within the residential buildings. It should be noted that with this plan that the additional 90 units, designated as future development, will be permanently abandoned. The parking count will be slightly less than was previously approved while reducing the amount of impervious cover on the project site. The total impervious area on the project site will be reduced by over 10,000 sf as part of the proposed site plan modifications.		
Name of Applicant/Sponsor: UG Family, LLC		Telephone: 518-687-7305
		E-Mail: m.uccellini@ugoc.com
Address: 300 Jordan Road		
City/PO: Troy	State: New York	Zip Code: 12180
Project Contact (if not same as sponsor; give name and title/role): Michael Uccellini		Telephone: 518-687-7305
		E-Mail: m.uccellini@ugoc.com
Address: 300 Jordan Road		
City/PO: Troy	State: New York	Zip Code: 12180
Property Owner (if not same as sponsor): GABELRY Development, LLC		Telephone: 518-687-7305
		E-Mail: m.uccellini@ugoc.com
Address: 300 Jordan Road		
City/PO: Troy	State: New York	Zip Code: 12180

B. Government Approvals

B. Government Approvals, Funding, or Sponsorship. ("Funding" includes grants, loans, tax relief, and any other forms of financial assistance.)

Government Entity	If Yes: Identify Agency and Approval(s) Required	Application Date (Actual or projected)
a. City Council, Town Board, ☒ Yes ☐ No or Village Board of Trustees	Sewer district extension	To be determined
b. City, Town or Village ☒ Yes ☐ No Planning Board or Commission	Planning Board (site plan and subdivision/lot consolidation approval)	To be determined
c. City, Town or ☐ Yes ☒ No Village Zoning Board of Appeals		
d. Other local agencies ☐ Yes ☒ No		
e. County agencies ☒ Yes ☐ No	Albany County Planning Department (239 GML referral)	July 2022
f. Regional agencies ☐ Yes ☒ No		
g. State agencies ☒ Yes ☐ No	NYSDEC SPDES General Permit (GP-0-20-001)	To be determined
h. Federal agencies ☐ Yes ☒ No		
i. Coastal Resources.		
i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway?		☐ Yes ☒ No
ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program?		☐ Yes ☒ No
iii. Is the project site within a Coastal Erosion Hazard Area?		☐ Yes ☒ No

C. Planning and Zoning

C.1. Planning and zoning actions.	
Will administrative or legislative adoption, or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed?	☐ Yes ☒ No
- If Yes, complete sections C, F and G. - If No, proceed to question C.2 and complete all remaining sections and questions in Part I	
C.2. Adopted land use plans.	
a. Do any municipally- adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located?	☒ Yes ☐ No
If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located?	☒ Yes ☐ No
b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway; Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?)	☐ Yes ☒ No
If Yes, identify the plan(s):	
c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan?	☐ Yes ☒ No
If Yes, identify the plan(s):	

C.3. Zoning	
a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. If Yes, what is the zoning classification(s) including any applicable overlay district? TOD, Transit Oriented Development	☒ Yes ☐ No
b. Is the use permitted or allowed by a special or conditional use permit?	☒ Yes ☐ No
c. Is a zoning change requested as part of the proposed action? If Yes, i. What is the proposed new zoning for the site?	☐ Yes ☒ No
C.4. Existing community services.	
a. In what school district is the project site located? <u>Guilderland Central School District</u>	
b. What police or other public protection forces serve the project site? <u>Guilderland Police Department</u>	
c. Which fire protection and emergency medical services serve the project site? <u>Emergency services: Guilderland Police Department, Westmere Fire Department, Western Tpk Ambulance</u>	
d. What parks serve the project site? <u>Rensselaer Lake Preserve and Park, Albany Pine Bush Preserve, Tawasentha Park, other local parks</u>	
D. Project Details	
D.1. Proposed and Potential Development	
a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, include all components)? <u>Residential</u>	
b. a. Total acreage of the site of the proposed action?	<u>+/-19.68</u> acres
b. Total acreage to be physically disturbed?	<u>+/-12.3</u> acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor?	<u>+/-19.68</u> acres
c. Is the proposed action an expansion of an existing project or use?	☐ Yes ☒ No
i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet)? % _____ Units: _____	
d. Is the proposed action a subdivision, or does it include a subdivision?	☒ Yes ☐ No
If Yes, i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types) <u>Lot consolidation - Residential</u>	
ii. Is a cluster/conservation layout proposed?	☐ Yes ☒ No
iii. Number of lots proposed? <u>1</u>	
iv. Minimum and maximum proposed lot sizes? Minimum <u>19.68</u> Maximum <u>19.68</u>	
e. Will the proposed action be constructed in multiple phases?	☐ Yes ☒ No
i. If No, anticipated period of construction: <u>24</u> months	
ii. If Yes:	
• Total number of phases anticipated _____	
• Anticipated commencement date of phase 1 (including demolition) _____ month _____ year	
• Anticipated completion date of final phase _____ month _____ year	
• Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases: _____	

f. Does the project include new residential uses? ☒ Yes ☐ No				
If Yes, show numbers of units proposed.				
	<u>One Family</u>	<u>Two Family</u>	<u>Three Family</u>	<u>Multiple Family (four or more)</u>
Initial Phase	_____	_____	_____	222
At completion of all phases	_____	_____	_____	222

g. Does the proposed action include new non-residential construction (including expansions)? ☐ Yes ☒ No	
If Yes,	
i. Total number of structures _____	
ii. Dimensions (in feet) of largest proposed structure: _____ height; _____ width; and _____ length	
iii. Approximate extent of building space to be heated or cooled: _____ square feet	

h. Does the proposed action include construction or other activities that will result in the impoundment of any liquids, such as creation of a water supply, reservoir, pond, lake, waste lagoon or other storage? ☐ Yes ☒ No	
If Yes,	
i. Purpose of the impoundment: _____	
ii. If a water impoundment, the principal source of the water: ☐ Ground water ☐ Surface water streams ☐ Other specify: _____	
iii. If other than water, identify the type of impounded/contained liquids and their source. _____	
iv. Approximate size of the proposed impoundment. Volume: _____ million gallons; surface area: _____ acres	
v. Dimensions of the proposed dam or impounding structure: _____ height; _____ length	
vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete): _____	

D.2. Project Operations	
a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both? ☐ Yes ☒ No	
(Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite)	
If Yes:	
i. What is the purpose of the excavation or dredging? _____	
ii. How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site?	
• Volume (specify tons or cubic yards): _____	
• Over what duration of time? _____	
iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them. _____	
iv. Will there be onsite dewatering or processing of excavated materials? ☐ Yes ☐ No	
If yes, describe. _____	
v. What is the total area to be dredged or excavated? _____ acres	
vi. What is the maximum area to be worked at any one time? _____ acres	
vii. What would be the maximum depth of excavation or dredging? _____ feet	
viii. Will the excavation require blasting? ☐ Yes ☐ No	
ix. Summarize site reclamation goals and plan: _____	

b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetland, waterbody, shoreline, beach or adjacent area? ☐ Yes ☒ No	
If Yes:	
i. Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description): _____	

ii. Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placement of structures, or alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square feet or acres:

iii. Will the proposed action cause or result in disturbance to bottom sediments? ☒ Yes ☐ No
If Yes, describe: _____

iv. Will the proposed action cause or result in the destruction or removal of aquatic vegetation? ☐ Yes ☐ No
If Yes:

- acres of aquatic vegetation proposed to be removed: _____
- expected acreage of aquatic vegetation remaining after project completion: _____
- purpose of proposed removal (e.g. beach clearing, invasive species control, boat access): _____
- proposed method of plant removal: _____
- if chemical/herbicide treatment will be used, specify product(s): _____

v. Describe any proposed reclamation/mitigation following disturbance: _____

c. Will the proposed action use, or create a new demand for water? ☒ Yes ☐ No
If Yes:

i. Total anticipated water usage/demand per day: _____ 36,630 gallons/day

ii. Will the proposed action obtain water from an existing public water supply? ☒ Yes ☐ No
If Yes:

- Name of district or service area: Guilderland Water District
- Does the existing public water supply have capacity to serve the proposal? ☒ Yes ☐ No
- Is the project site in the existing district? ☒ Yes ☐ No
- Is expansion of the district needed? ☐ Yes ☒ No
- Do existing lines serve the project site? ☒ Yes ☐ No

iii. Will line extension within an existing district be necessary to supply the project? ☐ Yes ☒ No
If Yes:

- Describe extensions or capacity expansions proposed to serve this project: _____
- Source(s) of supply for the district: _____

iv. Is a new water supply district or service area proposed to be formed to serve the project site? ☐ Yes ☐ No
If Yes:

- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- Proposed source(s) of supply for new district: _____

v. If a public water supply will not be used, describe plans to provide water supply for the project: _____

vi. If water supply will be from wells (public or private), what is the maximum pumping capacity: _____ gallons/minute.

d. Will the proposed action generate liquid wastes? ☒ Yes ☐ No
If Yes:

i. Total anticipated liquid waste generation per day: _____ 36,630 gallons/day

ii. Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all components and approximate volumes or proportions of each): _____
Sanitary sewage

iii. Will the proposed action use any existing public wastewater treatment facilities? ☒ Yes ☐ No
If Yes:

- Name of wastewater treatment plant to be used: Albany County North Wastewater Treatment Plant
- Name of district: Town of Guilderland Sewer District
- Does the existing wastewater treatment plant have capacity to serve the project? ☒ Yes ☐ No
- Is the project site in the existing district? ☐ Yes ☒ No
- Is expansion of the district needed? ☒ Yes ☐ No

• Do existing sewer lines serve the project site? _____ • Will a line extension within an existing district be necessary to serve the project? _____	☒ Yes ☐ No ☐ Yes ☒ No
If Yes: • Describe extensions or capacity expansions proposed to serve this project: _____	
iv. Will a new wastewater (sewage) treatment district be formed to serve the project site? _____	
If Yes: • Applicant/sponsor for new district: _____ • Date application submitted or anticipated: _____ • What is the receiving water for the wastewater discharge? _____	
v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including specifying proposed receiving water (name and classification if surface discharge or describe subsurface disposal plans): _____	
vi. Describe any plans or designs to capture, recycle or reuse liquid waste: _____	
e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point source (i.e. sheet flow) during construction or post construction? _____	
If Yes: i. How much impervious surface will the project create in relation to total size of project parcel? _____ _____ Square feet or <u>5.5</u> acres (impervious surface) _____ Square feet or <u>19.68</u> acres (parcel size) ii. Describe types of new point sources. New point sources will include the eight buildings, roadways, parking lots and sidewalks. _____ iii. Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent properties, groundwater, on-site surface water or off-site surface waters)? _____	
Runoff will be directed to various proposed management practices utilizing green infrastructure techniques and planning by incorporating surface and subsurface practices. It is anticipated that the practices will consist of bioretention, infiltration basin/trench, and subsurface infiltration.	
• If to surface waters, identify receiving water bodies or wetlands: _____	
• Will stormwater runoff flow to adjacent properties? _____	
iv. Does the proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater? _____	
f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations? _____	
If Yes, identify: i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles) _____ ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers) _____ iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation) _____	
g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit? _____	
If Yes: i. Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year) _____ ii. In addition to emissions as calculated in the application, the project will generate: • _____ Tons/year (short tons) of Carbon Dioxide (CO₂) • _____ Tons/year (short tons) of Nitrous Oxide (N₂O) • _____ Tons/year (short tons) of Perfluorocarbons (PFCs) • _____ Tons/year (short tons) of Sulfur Hexafluoride (SF₆) • _____ Tons/year (short tons) of Carbon Dioxide equivalent of Hydrofluorocarbons (HFCs) • _____ Tons/year (short tons) of Hazardous Air Pollutants (HAPs)	

h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? ☐ Yes ☒ No If Yes: i. Estimate methane generation in tons/year (metric): _____ ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): _____			
i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations? ☐ Yes ☒ No If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust): _____			
j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services? ☐ Yes ☒ No If Yes: i. When is the peak traffic expected (Check all that apply): ☐ Morning ☐ Evening ☐ Weekend ☐ Randomly between hours of _____ to _____. ii. For commercial activities only, projected number of truck trips/day and type (e.g., semi trailers and dump trucks): _____ iii. Parking spaces: Existing _____ Proposed _____ Net increase/decrease _____ iv. Does the proposed action include any shared use parking? ☐ Yes ☐ No v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe: See Master traffic report vi. Are public/private transportation service(s) or facilities available within ½ mile of the proposed site? ☐ Yes ☐ No vii. Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? ☐ Yes ☐ No viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? ☐ Yes ☐ No			
k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? ☐ Yes ☐ No If Yes: i. Estimate annual electricity demand during operation of the proposed action: _____ ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other): _____ iii. Will the proposed action require a new, or an upgrade, to an existing substation? ☐ Yes ☐ No			
l. Hours of operation. Answer all items which apply. <table style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> i. During Construction: • Monday - Friday: <u>7:00 AM - 6:00 PM</u> • Saturday: <u>NA</u> • Sunday: <u>NA</u> • Holidays: <u>NA</u> </td> <td style="width: 50%; vertical-align: top;"> Residential: 24 hours per day 7 days per week ii. During Operations: Leasing office: • Monday - Friday: <u>9:00 AM - 5:30 PM</u> • Saturday: <u>10:00 AM - 4:00 PM</u> • Sunday: <u>NA</u> • Holidays: <u>NA</u> </td> </tr> </table>		i. During Construction: • Monday - Friday: <u>7:00 AM - 6:00 PM</u> • Saturday: <u>NA</u> • Sunday: <u>NA</u> • Holidays: <u>NA</u>	Residential: 24 hours per day 7 days per week ii. During Operations: Leasing office: • Monday - Friday: <u>9:00 AM - 5:30 PM</u> • Saturday: <u>10:00 AM - 4:00 PM</u> • Sunday: <u>NA</u> • Holidays: <u>NA</u>
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m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? ☒ Yes ☐ No If yes: i. Provide details including sources, time of day and duration: <u>Temporary noise above local ambient levels may occur during construction. Construction will be in accordance with Section 205-6(F) of the Town Code</u> ii. Will the proposed action remove existing natural barriers that could act as a noise barrier or screen? ☐ Yes ☒ No Describe: _____
n. Will the proposed action have outdoor lighting? ☒ Yes ☐ No If yes: i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures: <u>Parking lot and building lighting will be downcast and have shielded sodium vapor fixtures.</u> ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? ☒ Yes ☐ No Describe: <u>Vegetation will be removed in association with the project; however, effectiveness of the existing screening will not be impaired and new berms and tree plantings for screening are proposed. All new fixtures will be downcast and shielded.</u>
o. Does the proposed action have the potential to produce odors for more than one hour per day? ☐ Yes ☒ No If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures: _____
p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons) or chemical products 185 gallons in above ground storage or any amount in underground storage? ☐ Yes ☒ No If Yes: i. Product(s) to be stored _____ ii. Volume(s) _____ per unit time _____ (e.g., month, year) iii. Generally, describe the proposed storage facilities: _____
q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? ☐ Yes ☒ No If Yes: i. Describe proposed treatment(s): _____ _____ _____ ii. Will the proposed action use Integrated Pest Management Practices? ☐ Yes ☐ No
r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? ☐ Yes ☒ No If Yes: i. Describe any solid waste(s) to be generated during construction or operation of the facility: • Construction: _____ tons per _____ (unit of time) • Operation : _____ tons per _____ (unit of time) ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste: • Construction: _____ • Operation: _____ iii. Proposed disposal methods/facilities for solid waste generated on-site: • Construction: _____ • Operation: _____

s. Does the proposed action include construction or modification of a solid waste management facility? ☐ Yes ☒ No

If Yes:

i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities): _____

ii. Anticipated rate of disposal/processing:

- _____ Tons/month, if transfer or other non-combustion/thermal treatment, or
- _____ Tons/hour, if combustion or thermal treatment

iii. If landfill, anticipated site life: _____ years

t. Will the proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous waste? ☐ Yes ☒ No

If Yes:

i. Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility: _____

ii. Generally describe processes or activities involving hazardous wastes or constituents: _____

iii. Specify amount to be handled or generated _____ tons/month

iv. Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents: _____

v. Will any hazardous wastes be disposed at an existing offsite hazardous waste facility? ☐ Yes ☒ No

If Yes: provide name and location of facility: _____

If No: describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility: _____

E. Site and Setting of Proposed Action

E.1. Land uses on and surrounding the project site

a. Existing land uses.

i. Check all uses that occur on, adjoining and near the project site.

☐ Urban ☐ Industrial ☐ Commercial ☒ Residential (suburban) ☐ Rural (non-farm)

☒ Forest ☐ Agriculture ☐ Aquatic ☐ Other (specify): _____

ii. If mix of uses, generally describe: _____

b. Land uses and coverts on the project site.

Land use or Coverttype	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces	0.21+/-	5.50+/-	+5.29
• Forested	19.21+/-	7.57+/-	-11.64
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)	0.26+/-	6.61+/-	+6.35
• Agricultural (includes active orchards, field, greenhouse etc.)	0	0	0
• Surface water features (lakes, ponds, streams, rivers, etc.)	0	0	0
• Wetlands (freshwater or tidal)	0	0	0
• Non-vegetated (bare rock, earth or fill)	0	0	0
• Other Describe: _____			

c. Is the project site presently used by members of the community for public recreation? ☐ Yes ☒ No <i>i. If Yes: explain:</i> _____
d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site? ☒ Yes ☐ No If Yes, <i>i. Identify Facilities:</i> Daughters of Sarah Senior Community (Washington Avenue Extension) _____
e. Does the project site contain an existing dam? ☐ Yes ☒ No If Yes: <i>i. Dimensions of the dam and impoundment:</i> • Dam height: _____ feet • Dam length: _____ feet • Surface area: _____ acres • Volume impounded: _____ gallons OR acre-feet <i>ii. Dam's existing hazard classification:</i> _____ <i>iii. Provide date and summarize results of last inspection:</i> _____
f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility? ☐ Yes ☒ No If Yes: <i>i. Has the facility been formally closed?</i> ☐ Yes ☐ No • If yes, cite sources/documentation: _____ <i>ii. Describe the location of the project site relative to the boundaries of the solid waste management facility:</i> _____ <i>iii. Describe any development constraints due to the prior solid waste activities:</i> _____
g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? ☐ Yes ☒ No If Yes: <i>i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred:</i> _____
h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site? ☐ Yes ☒ No If Yes: <i>i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply:</i> ☐ Yes ☐ No ☐ Yes – Spills Incidents database ☐ Yes – Environmental Site Remediation database ☐ Neither database Provide DEC ID number(s): _____ Provide DEC ID number(s): _____ <i>ii. If site has been subject of RCRA corrective activities, describe control measures:</i> _____ <i>iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database?</i> ☐ Yes ☒ No If yes, provide DEC ID number(s): _____ <i>iv. If yes to (i), (ii) or (iii) above, describe current status of site(s):</i> _____

v. Is the project site subject to an institutional control limiting property uses? ☐ Yes ☐ No	
• If yes, DEC site ID number: _____ • Describe the type of institutional control (e.g., deed restriction or easement): _____ • Describe any use limitations: _____ • Describe any engineering controls: _____ • Will the project affect the institutional or engineering controls in place? ☐ Yes ☐ No • Explain: _____	
E.2. Natural Resources On or Near Project Site	
a. What is the average depth to bedrock on the project site? _____ 6-7 feet	
b. Are there bedrock outcroppings on the project site? ☐ Yes ☒ No	
If Yes, what proportion of the site is comprised of bedrock outcroppings? _____ %	
c. Predominant soil type(s) present on project site:	
Stafford loamy fine sand	35 %
Colonie loamy fine sand	25 %
Granby loamy fine	20 %
Other	20%
d. What is the average depth to the water table on the project site? Average: _____ 0 to >6 feet	
e. Drainage status of project site soils: ☒ Well Drained: _____ 20 % of site	
☒ Moderately Well Drained: _____ 80 % of site	
☐ Poorly Drained: _____ % of site	
f. Approximate proportion of proposed action site with slopes: ☒ 0-10%: _____ 70 % of site	
☒ 10-15%: _____ 25 % of site	
☒ 15% or greater: _____ 5 % of site	
g. Are there any unique geologic features on the project site? ☐ Yes ☒ No	
If Yes, describe: _____	
h. Surface water features.	
i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)? ☐ Yes ☒ No	
ii. Do any wetlands or other waterbodies adjoin the project site? ☐ Yes ☒ No	
If Yes to either i or ii, continue. If No, skip to E.2.i.	
iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency? ☐ Yes ☒ No	
iv. For each identified regulated wetland and waterbody on the project site, provide the following information:	
• Streams: Name _____ Classification _____	
• Lakes or Ponds: Name _____ Classification _____	
• Wetlands: Name _____ Approximate Size _____	
• Wetland No. (if regulated by DEC) _____	
v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies? ☐ Yes ☒ No	
If yes, name of impaired water body/bodies and basis for listing as impaired: _____	
i. Is the project site in a designated Floodway? ☐ Yes ☒ No	
j. Is the project site in the 100-year Floodplain? ☐ Yes ☒ No	
k. Is the project site in the 500-year Floodplain? ☐ Yes ☒ No	
l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? ☒ Yes ☐ No	
If Yes:	
i. Name of aquifer: Albany Pinebush Principal Aquifer	

m. Identify the predominant wildlife species that occupy or use the project site: See B. Laing Associates Report _____ _____
n. Does the project site contain a designated significant natural community? ☐ Yes ☒ No If Yes: i. Describe the habitat/community (composition, function, and basis for designation): _____ ii. Source(s) of description or evaluation: _____ iii. Extent of community/habitat: • Currently: _____ acres • Following completion of project as proposed: _____ acres • Gain or loss (indicate + or -): _____ acres
o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? ☐ Yes ☒ No If Yes: i. Species and listing (endangered or threatened): _____ _____ _____
p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern? ☐ Yes ☒ No If Yes: i. Species and listing: _____ _____ _____
q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? ☐ Yes ☒ No If yes, give a brief description of how the proposed action may affect that use: _____ _____ _____
E.3. Designated Public Resources On or Near Project Site
a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? ☐ Yes ☒ No If Yes, provide county plus district name/number: _____
b. Are agricultural lands consisting of highly productive soils present? ☐ Yes ☒ No i. If Yes: acreage(s) on project site? _____ ii. Source(s) of soil rating(s): _____
c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? ☐ Yes ☒ No If Yes: i. Nature of the natural landmark: ☐ Biological Community ☐ Geological Feature ii. Provide brief description of landmark, including values behind designation and approximate size/extent: _____ _____ _____
d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? ☐ Yes ☒ No If Yes: i. CEA name: _____ ii. Basis for designation: _____ iii. Designating agency and date: _____

e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places?	☒ Yes ☐ No
If Yes:	
i. Nature of historic/archaeological resource: ☐ Archaeological Site ☒ Historic Building or District	
ii. Name: <u>Rapp Road Community Historic District</u>	
iii. Brief description of attributes on which listing is based: <u>Area of social history and community development</u>	
f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory?	☐ Yes ☒ No
g. Have additional archaeological or historic site(s) or resources been identified on the project site?	☐ Yes ☒ No
If Yes:	
i. Describe possible resource(s): _____	
ii. Basis for identification: _____	
h. Is the project site within five miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource?	☐ Yes ☒ No
If Yes:	
i. Identify resource: _____	
ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): _____	
iii. Distance between project and resource: _____ miles.	
i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666?	☐ Yes ☒ No
If Yes:	
i. Identify the name of the river and its designation: _____	
ii. Is the activity consistent with development restrictions contained in 6NYCRR Part 666?	
☐ Yes ☐ No	

F. Additional Information

Attach any additional information which may be needed to clarify your project.

If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

G. Verification

I certify that the information provided is true to the best of my knowledge.

Applicant/Sponsor Name UG Family, LLC Date 06/16/2022

Signature  Title Manager

PRINT FORM



June 3, 2022

Planning Board Chairman Stephen Feeney and Planning Board Members
Guilderland Town Hall
5209 Western Turnpike
Guilderland, NY 12084

CC: Jeff Smetana (UG Family, LLC)

**RE: Rapp Road Residential Project – Final Site Plan Approval
Town of Guilderland, New York, Albany County**

Members of the Board:

UG Family, LLC, is proposing modification to the previously approved Site Plan for the Rapp Road Residential Project, also known as Site 1, in the State Environmental Quality Review Findings Statement, dated August 28, 2020, adopted by the Town of Guilderland Planning Board for the Rapp Road Residential / Western Avenue Mixed Use Redevelopment Projects.

On August 14, 2019, the Planning Board, as SEQRA Lead Agency, adopted a resolution issuing a Positive Declaration requiring a cumulative impact analysis of the proposed action, described in Part 3 of the EAF for the action. The proposed action includes three sites: the Rapp Road Residential Development project (Site 1), the Costco retail facility project, and a residential/commercial mixed-use concept (Site 3). The Rapp Road Residential Development project was included within the DEIS.

The DEIS was accepted as complete on February 12, 2020, and a Final Environmental Impact Statement (FEIS) was prepared at the close of the public comment period. On July 29, 2020, the Planning Board as Lead Agency, adopted the FEIS and on July 31, 2020, a notice of completion was filed with the NYSDEC Environmental Notice Bulletin. As noted above, the Planning Board adopted SEQRA findings on August 28, 2020.

The Rapp Road Residential Project will be named The Apex at Crossgates ("The Apex"). The Apex at Crossgates will provide 222 Class A rental units, including 192 apartments over a first level parking garage, plus 30 townhomes with private garages. Apartments and townhomes will all have premium features and finishes, including gourmet kitchens with stainless appliances and granite counters, luxury plank flooring, walk-in closets, full-size washer/dryers, ceramic tile bathrooms, glass door showers, designer fixtures, nine-foot ceilings and private balconies. The 6,500 square foot clubhouse will provide a gym-quality fitness center and yoga studio, work café and private meeting spaces, games rooms and bistro lounge for social events, plus an outdoor pool, grilling stations, bocce and pickle ball courts, and walking trails. The Apex will have a lighted and landscaped walking path to the adjacent Crossgates Mall, as well as sidewalk connections to the nearby CDTA bus stop and to Western Avenue.

The 222 residential units will remain consistent with the previously approved site plan and the amount of surface parking will be reduced because some parking will be moved within the residential buildings. It should be noted that with this plan that the additional 90 units, designated as future development, will be permanently abandoned. The parking count will be slightly less than was previously approved

4 British American Blvd | Latham, NY 12110 | p (518) 273-0055
www.labellapc.com



while reducing the amount of impervious cover on the project site. The total impervious area on the project site will be reduced by over 10,000 sf as part of the proposed site plan modifications.

The previously approved project had space reserved for future development of residential units. As part of the new proposed plan the buildings have been spaced out to create more open space in the overall development and the mid-rise buildings moved away from the Westmere Terrace neighborhood. The result is that there will be no planned future development of additional residential units on the project site as previously shown on the site plan.

As a result of the reduced impervious area the amount of water quality treatment needed for stormwater management is also reduced. The modified layout provides more opportunity for incorporating green infrastructure into the project.

Lastly since the overall unit count for the full build out of Site 1 would be reduced from the previously approved project, it will not result in any additional traffic generation, nor will it increase demands on municipal services and public water and sewer systems.

Table 1 summarizes the proposed project in comparison to the previously approved project.

Table 1

	Previously Approved Project	Modified Project
Unit Count	222 ¹	222
Parking Count	362	355
Impervious Surface	276,197 sf	265,563 sf
Water Quality	22,860 cf	21,940 cf
¹ 222 units were previously approved, with an area designed as future development for 90 additional units.		

The modification to the proposed project results in a plan that is consistent with the SEQRA record and adopted Findings Statement because it will result in no new impacts and in the case of impervious area and stormwater runoff, will result in fewer impacts. Additionally, the modified project will have more open space. Residential density will remain the same with no future phase increase in total residential dwelling units. Water demand/wastewater generation, traffic generation, and solid waste generation will all remain unchanged.

To arrive at this conclusion, we reviewed the FEIS adopted by the Planning Board and compared the proposed development changes to the approved project in each relevant area of the environment. Based on our review, the modification would not result in greater impacts and in some cases would result in lesser impacts. The following summarizes our analysis.

1. Biological, Terrestrial and Ecology

The proposed modifications to the development and site design for Site 1 will not change the project's impact on land. The overall footprint of the project has not changed and therefore there will be no increase in impacts to biological, terrestrial, or ecological resources.



2. Historic, Cultural and Archeological Resources

The proposed modifications to the development and site design for Site 1 will not change the project's impact on land. The overall footprint of the project has not changed, and the unit count remains the same under the proposed development plan. The Potential for additional future development approved under the original Site Plan has been abandoned with this Plan. There are no changes to the mitigation for historic, cultural, and archaeological resources outlined within the FEIS.

3. Traffic and Transportation

The proposed modifications to the development and site design will not change the project's impact on Transportation and Traffic. The modified project permanently abandons the area designed as future development for 90 additional units and proposes a unit count of 222 units consistent with the approved plans. Therefore, there will be no change in trips from the modified project. The modified project will supply slightly fewer parking spaces 355 (a reduction of 7) from the original approved plan. However, the number of parking spaces proposed meets the required zoning for the district and meets the demands of the project. Therefore, all prior analysis of potential impacts on transportation and parking remain valid.

4. Land Use and Zoning

The overall footprint for the project has not changed and the proposed modifications to the development and site design will remain consistent with TOD legislation and the findings in the FEIS. Therefore, there will be no impacts to land use.

5. Character of the Community/Neighborhood

The proposed modifications to the development and site design will not change the project's impact on community character because its use, location, overall appearance, and zoning classification remain the same. The proposed modifications will move more of the proposed parking into the residential buildings which reduces the amount of surface parking needed and the amount of impervious cover on the project site. The taller buildings will be moved further away from Westmere Terrace and there will no longer be a place on the site plan reserved for future development of additional units. Visual analysis conducted of the modified plan confirms that there will be no change in the potential visibility of the Project from the adjacent historic district to the north due to the continued preservation of the Conservation buffer area and existing topography which will remain unchanged. . The site will continue to be consistent with the community character as analyzed in the EIS.

6. Schools, Community Facilities and Municipal Services

The total number of residential units will not change from the previously approved project and as such the proposed modifications to the development and site design will not change the project's impact to schools, community facilities and municipal services.



7. Air Quality and Noise

The overall footprint of the project and the total number of units has not changed and therefore the proposed modifications to the development and site design will not change the project's impact to air quality and noise.

8. Municipal Revenues and Finances

The modified project permanently abandons the area designed as future development for 90 additional units and proposes a unit count of 222 units consistent with the approved plans, therefore the proposed modifications to the development and site design will not change the project's impact to municipal revenues and finances.

9. Alternatives

The proposed modifications to the development and site design are consistent with the originally approved project and therefore does not change the outcome of the alternatives analysis.

10. Water Resources

No wetlands or hydric soil conditions were found on the Site and as such the proposed modifications will not have an impact on water resources. Since the project will have less impervious coverage the stormwater management for the project site requires less water quality volume for treatment. The modified plan incorporates the requirements for the NYSDEC stormwater design manual and promotes green infrastructure and infiltration practices similar to that of which was proposed in the original site plan.

11. Miscellaneous – Climate Change/Tree Cutting

The overall footprint of the project and the project permanently abandons the area designed as future development for 90 additional units and proposes a unit count of 222 units consistent with the approved plans. The proposed modifications to the development and site design will not change the project's impact to the findings with respect to climate change and tree cutting.

Based on the information above, it is our opinion that the conclusions of the SEQRA review carried out by the Town of Guilderland are not affected and that the modified project is consistent with the prior SEQRA findings and therefore no further SEQRA action is needed.

Respectfully submitted,

LaBella Associates

Roger Keating
Senior Civil Engineer, Regional Leader











Before and After Study Narrative

Rapp Road, Guilderland, NY

The following Before and After Study provides on-the-ground perspective views of the Project Site from 4 vantage points, showing the “Before” view and “After” view which, where applicable, includes the to-be-constructed soil berm, stockade fence and mature tree visual barriers.

The 4 perspective views are from:

1. Westmere Terrace looking North
2. Paden Circle looking East
3. Rapp Road at Gipp Road looking South
4. Rapp Road at Southern end of Historic District looking South

View 1 – from Westmere Terrace

On the Amended Site Plan, the garden apartment buildings have been shifted approximately 300’ north, away from Westmere Terrace, and therefore, reducing any potential visibility from this vantage point.

The After study illustrates that the majority of the building mass will be directly screened by the to-be-constructed 20’ berm, 6’ stockade fence and 12’ to 15’ trees. Any view of the building from Westmere Terrace is less than what may have been viewable with the approved Site Plan, because the buildings are shifted further north, away from Westmere Terrace.

View 2 – from Paden Circle

From Paden Circle, the east-west orientation of the buildings on the Amended Site Plan is similar to the approved Site Plan, so the distance is about the same and, therefore, any visibility of buildings from Paden Circle is unchanged.

The After study illustrates that the majority of building mass will be directly screened by the berm, fence and trees along the west boundary.

View 3 – from Rapp Road at Gipp Road

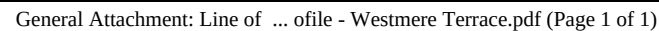
The Rapp Road and Gipp Road intersection is about 800’ south of the Historic Neighborhood.

The 4.8 acre Designated Forever Wild area on the north end of the Project Site will be undisturbed, so will remain fully vegetated with mature trees as shown in the Before study. This 200’ wide buffer will fully screen the new buildings from this vantage point, as shown in the After study.

View 4 – from Southern End of Historic District

The entrance into the Historic District is about 1,200’ from the first building on the Amended Site Plan.

The 4.8 acre Designated Forever Wild area and the additional mature trees, houses and rise in topography along Rapp Road between the Historic District and the Project Site, create a solid barrier that fully shields any view from the Historic District. Thus, the Before and After studies are the same.



400 Columbus Avenue
Suite 180E
Valhalla New York 10595
Main: 877 627 3772
colliersengineering.com



June 28, 2022

Planning Board Chairman Stephen Feeney and Planning Board Members
Guilderland Town Hall
5209 Western Turnpike
Guilderland, NY 12804

The Apex at Crossgates
(Rapp Road Residential Project)
Town of Guilderland, Albany County, New York
Colliers Engineering & Design Project No. 22005294A

Chairman Feeney and Members of the Board:

It is our understanding that the UG Family, LLC is proposing modification to the previously approved Site Plan for the Rapp Road Residential Project, also known as Site 1, in the State Environmental Quality Review Findings Statement, dated August 28, 2020, adopted by the Town of Guilderland Planning Board for the Rapp Road Residential / Western Avenue Mixed Use Redevelopment Projects.

Maser Consulting P.A., now part of Colliers Engineering & Design, prepared the Traffic Impact Study for the Rapp Road Residential and Western Avenue Mixed Use Redevelopment Projects including the recommended improvements which were part of the DEIS and FEIS.

As requested by The Apex at Crossgates, Colliers Engineering & Design has reviewed the Project Summary dated June 3, 2022 prepared by LaBella, the modified Apex at Crossgates Site Plan (06.03.22), and the approved Site Plan for the Rapp Road Residential Project and has determined that there will be no significant, if any, traffic and transportation related impacts with the proposed modifications. It should be noted that the EIS also analyzed a potential future development area for an additional 90-units as part of a subsequent phase, which now will not be developed. The total number of units will remain at 222, the same as previously approved. In addition, with the modified layout there will be more open space provided, less impervious surface, and would result in less traffic than previously analyzed with the potential future development. The proposed Project and modifications are consistent with the traffic findings of the DEIS and FEIS.

Sincerely,
Colliers Engineering & Design CT, P.C.
(DBA Maser Consulting Engineering & Land Surveying)

A handwritten signature in blue ink, appearing to read "Ronald P. Rieman".

Ronald P. Rieman, Project Manager

CC: Jeff Smetana – The United Group of Companies, Inc.
Michael J. Uccellini – The United Group of Companies, Inc.

R:\Projects\2022\22005294A\Correspondence\OUT\220628_RPR_The Apex at Crossgates Letter.docx

Bergmann has joined Colliers Engineering & Design

Accelerating success.

Gabelry Development, LLC

300 Jordan Road | Troy, NY 12180 | (518) 687-7300

July 1, 2022

Kenneth Kovalchik
Town Planner
Town of Guilderland
Guilderland Town Hall
5209 Wester Turnpike
Guilderland, NY 12084

**RE: Rapp Road Residential Project – Amended Site Plan Approval
Town of Guilderland, New York, Albany County**

Dear Ken:

Please be advised that three (3) placards sized 24" x 36" have been posted on the site of the above referenced project in the following locations:

1. North end of Westmere Terrace
2. East side along Rapp Road
3. North side along Gipp Road

The placards contain the following notice:

THE PROPERTY LOCATED AT THE SW CORNER OF RAPP ROAD/GIPP ROAD IS SUBJECT TO AN APPLICATION BY GABELRY DEVELOPMENT, LLC TO AMEND THE PREVIOUSLY APPROVED SITE PLAN FOR A 222 UNIT APARTMENT COMMUNITY. THE SITE PLAN AMENDMENT APPLICATION IS AVAILABLE FOR PUBLIC INSPECTION AT THE TOWN OF GUILDERLAND TOWN HALL PLANNING DEPARTMENT AND WILL BE POSTED ON THE TOWN WEBSITE.

I hereby represent and affirm that the above referenced placards have been posted on the subject property as stated above.

Very truly yours,



Jeffrey R. Smetana
Executive Vice President of Development

TOWN OF GUILDERLAND

Peter G. Barber
Supervisor

Kenneth Kovalchik, AICP
Town Planner

Planning Department
Town Hall, Route 20
P.O. Box 339
Guilderland, NY 12084-0339
Phone: (518) 356-1980 x 1061
Fax: (518) 356-5514
Email: kovalchikk@togny.org



June 30, 2022

Bradley Glass, Director
Department of Planning and Development
City of Albany
200 Henry Johnson Blvd
Albany, NY 12210

Re: Proposed Apex @ Crossgates Multiple-Family Residences – UG Family, LLC
SEQR/Type I Action - Lead Agency Coordination for a Site Plan Amendment (f/k/a Rapp Road Apartments)

Dear Mr. Glass:

The Town of Guilderland has received the enclosed site plan amendment application for a previously approved 222-unit multiple-family residential project located on +/- 19.68 acres at the SW corner of Rapp Road/Gipp Road. The site is located within the Transit Oriented Development (TOD) District. This project, which was formerly known as Rapp Road Apartments, received site plan approval by the Planning Board on October 28, 2020, and was included in the Rapp Road Residential/Western Avenue Mixed Use Redevelopment Projects Environmental Impact Statement adopted by the Planning Board on July 31, 2020.

In accordance with the requirements of the State Environmental Quality Review Act found at 6 NYCRR, Part 617, the action is considered Type I, which requires a coordinated review pursuant to 6 NYCRR 617.4. The Planning Board expressed its desire to be Lead Agency during the original site plan review of this proposal and will automatically assume that role unless objection is received from another involved agency within 30 days.

Your agency has been identified as a potential involved or interested agency under SEQR. The enclosed application includes the site plan amendment application, project plans and supporting documentation and Full EAF. Any objections you might have regarding Town Planning Board assumption of Lead Agency status should be submitted within the above noted 30-day time period.

Any comments you may wish to submit regarding the proposed action will be considered by the Town in its review of the application. At this time the Town would welcome any comments your agency might have and would request that you inform us of the nature of any permits that may be necessary from your agency.

Visit the Town of Guilderland Website at <http://www.townofguilderland.org>

Please feel free to contact me at 518-356-1980, ext. 1061 or kovalchikk@togny.org, with any comments or questions you might have. Written correspondence should be directed to my attention.

Sincerely,

Kenneth Kovalchik, AICP
Town Planner

TOWN OF GUILDERLAND

Peter G. Barber
Supervisor

Kenneth Kovalchik, AICP
Town Planner

Planning Department
Town Hall, Route 20
P.O. Box 339
Guilderland, NY 12084-0339
Phone: (518) 356-1980 x 1061
Fax: (518) 356-5514
Email: kovalchikk@togny.org



June 30, 2022

Trish Gabriel
Environmental Analyst 2
NYS Dept of Env. Conservation - Region 4 Headquarters
1130 North Westcott Road
Schenectady, NY 12306

Re: Proposed Apex @ Crossgates Multiple-Family Residences – UG Family, LLC
SEQR/Type I Action - Lead Agency Coordination for a Site Plan Amendment (f/k/a Rapp Road Apartments)

Dear Ms. Gabriel,

The Town of Guilderland has received the enclosed site plan amendment application for a previously approved 222-unit multiple-family residential project located on +/- 19.68 acres at the SW corner of Rapp Road/Gipp Road. The site is located within the Transit Oriented Development (TOD) District. This project, which was formerly known as Rapp Road Apartments, received site plan approval by the Planning Board on October 28, 2020, and was included in the Rapp Road Residential/Western Avenue Mixed Use Redevelopment Projects Environmental Impact Statement adopted by the Planning Board on July 31, 2020.

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Please feel free to contact me at 518-356-1980, ext. 1061 or kovalchikk@togny.org, with any comments or questions you might have. Written correspondence should be directed to my attention.

Sincerely,

Kenneth Kovalchik, AICP
Town Planner

TOWN OF GUILDERLAND

Peter G. Barber
Supervisor

Kenneth Kovalchik, AICP
Town Planner

Planning Department
Town Hall, Route 20
P.O. Box 339
Guilderland, NY 12084-0339
Phone: (518) 356-1980 x 1061
Fax: (518) 356-5514
Email: kovalchikk@togny.org



June 30, 2022

Neil Gifford, Conservation Director
Albany Pine Bush Preserve Commission
195 New Karner Road, Suite 1
Albany, NY 12205

Re: Proposed Apex @ Crossgates Multiple-Family Residences – UG Family, LLC
SEQR/Type I Action - Lead Agency Coordination for a Site Plan Amendment (f/k/a Rapp Road Apartments)

Dear Mr. Gifford,

The Town of Guilderland has received the enclosed site plan amendment application for a previously approved 222-unit multiple-family residential project located on +/- 19.68 acres at the SW corner of Rapp Road/Gipp Road. The site is located within the Transit Oriented Development (TOD) District. This project, which was formerly known as Rapp Road Apartments, received site plan approval by the Planning Board on October 28, 2020, and was included in the Rapp Road Residential/Western Avenue Mixed Use Redevelopment Projects Environmental Impact Statement adopted by the Planning Board on July 31, 2020.

In accordance with the requirements of the State Environmental Quality Review Act found at 6 NYCRR, Part 617, the action is considered Type I, which requires a coordinated review pursuant to 6 NYCRR 617.4. The Planning Board expressed its desire to be Lead Agency during the original site plan review of this proposal and will automatically assume that role unless objection is received from another involved agency within 30 days.

Your agency has been identified as a potential involved or interested agency under SEQR. The enclosed application includes the site plan amendment application, project plans and supporting documentation and Full EAF. Any objections you might have regarding Town Planning Board assumption of Lead Agency status should be submitted within the above noted 30-day time period.

Any comments you may wish to submit regarding the proposed action will be considered by the Town in its review of the application. At this time the Town would welcome any comments your agency might have and would request that you inform us of the nature of any permits that may be necessary from your agency.

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Please feel free to contact me at 518-356-1980, ext. 1061 or kovalchikk@togny.org, with any comments or questions you might have. Written correspondence should be directed to my attention.

Sincerely,

Kenneth Kovalchik, AICP
Town Planner

TOWN OF GUILDERLAND

Peter G. Barber
Supervisor

Kenneth Kovalchik, AICP
Town Planner

Planning Department
Town Hall, Route 20
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Guilderland, NY 12084-0339
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Fax: (518) 356-5514
Email: kovalchikk@togny.org



June 30, 2022

John Bonafide, Director, Agency Preservation Officer
Technical Preservation Bureau
NYS Office of Parks Recreation and Historic Preservation
Historic Preservation Field Services Bureau
Peebles Island, P.O. Box 189
Waterford, New York 12188-0189

Re: Proposed Apex @ Crossgates Multiple-Family Residences – UG Family, LLC
SEQR/Type I Action - Lead Agency Coordination for a Site Plan Amendment (f/k/a Rapp Road Apartments)

Dear Mr. Bonafide,

The Town of Guilderland has received the enclosed site plan amendment application for a previously approved 222-unit multiple-family residential project located on +/- 19.68 acres at the SW corner of Rapp Road/Gipp Road. The site is located within the Transit Oriented Development (TOD) District. This project, which was formerly known as Rapp Road Apartments, received site plan approval by the Planning Board on October 28, 2020, and was included in the Rapp Road Residential/Western Avenue Mixed Use Redevelopment Projects Environmental Impact Statement adopted by the Planning Board on July 31, 2020.

In accordance with the requirements of the State Environmental Quality Review Act found at 6 NYCRR, Part 617, the action is considered Type I, which requires a coordinated review pursuant to 6 NYCRR 617.4. The Planning Board expressed its desire to be Lead Agency during the original site plan review of this proposal and will automatically assume that role unless objection is received from another involved agency within 30 days.

Your agency has been identified as a potential involved or interested agency under SEQR. The enclosed application includes the site plan amendment application, project plans and supporting documentation and Full EAF. Any objections you might have regarding Town Planning Board assumption of Lead Agency status should be submitted within the above noted 30-day time period.

Any comments you may wish to submit regarding the proposed action will be considered by the Town in its review of the application. At this time the Town would welcome any comments your

Visit the Town of Guilderland Website at <http://www.townofguilderland.org>

agency might have and would request that you inform us of the nature of any permits that may be necessary from your agency.

Please feel free to contact me at 518-356-1980, ext. 1061 or kovalchikk@togny.org, with any comments or questions you might have. Written correspondence should be directed to my attention.

Sincerely,

Kenneth Kovalchik, AICP
Town Planner

TOWN OF GUILDERLAND

Peter G. Barber
Supervisor

Kenneth Kovalchik, AICP
Town Planner

Planning Department
Town Hall, Route 20
P.O. Box 339
Guilderland, NY 12084-0339
Phone: (518) 356-1980 x 1061
Fax: (518) 356-5514
Email: kovalchikk@togny.org



June 30, 2022

US Fish and Wildlife Service
New York Ecological Services Field Office
3817 Luker Road
Cortland, NY 13045-9349

Re: Proposed Apex @ Crossgates Multiple-Family Residences – UG Family, LLC
SEQR/Type I Action - Lead Agency Coordination for a Site Plan Amendment (f/k/a Rapp Road Apartments)

To Whom it May Concern,

The Town of Guilderland has received the enclosed site plan amendment application for a previously approved 222-unit multiple-family residential project located on +/- 19.68 acres at the SW corner of Rapp Road/Gipp Road. The site is located within the Transit Oriented Development (TOD) District. This project, which was formerly known as Rapp Road Apartments, received site plan approval by the Planning Board on October 28, 2020, and was included in the Rapp Road Residential/Western Avenue Mixed Use Redevelopment Projects Environmental Impact Statement adopted by the Planning Board on July 31, 2020.

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Please feel free to contact me at 518-356-1980, ext. 1061 or kovalchikk@togny.org, with any comments or questions you might have. Written correspondence should be directed to my attention.

Sincerely,

Kenneth Kovalchik, AICP
Town Planner

TOWN OF GUILDERLAND

Peter G. Barber
Supervisor

Kenneth Kovalchik, AICP
Town Planner

Planning Department
Town Hall, Route 20
P.O. Box 339
Guilderland, NY 12084-0339
Phone: (518) 356-1980 x 1061
Fax: (518) 356-5514
Email: kovalchikk@togny.org



June 30, 2022

Ms. Lisa Ramundo
Commissioner
Albany County Department of Public Works
449 New Salem Road
Voorheesville, NY 12186

Re: Proposed Apex @ Crossgates Multiple-Family Residences – UG Family, LLC
SEQR/Type I Action - Lead Agency Coordination for a Site Plan Amendment (f/k/a Rapp Road Apartments)

Dear Ms. Ramundo,

The Town of Guilderland has received the enclosed site plan amendment application for a previously approved 222-unit multiple-family residential project located on +/- 19.68 acres at the SW corner of Rapp Road/Gipp Road. The site is located within the Transit Oriented Development (TOD) District. This project, which was formerly known as Rapp Road Apartments, received site plan approval by the Planning Board on October 28, 2020, and was included in the Rapp Road Residential/Western Avenue Mixed Use Redevelopment Projects Environmental Impact Statement adopted by the Planning Board on July 31, 2020.

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Please feel free to contact me at 518-356-1980, ext. 1061 or kovalchikk@togny.org, with any comments or questions you might have. Written correspondence should be directed to my attention.

Sincerely,

Kenneth Kovalchik, AICP
Town Planner



TOWN OF GUILDERLAND PLANNING BOARD SITE PLAN APPROVAL FINDINGS STATEMENT

NAME OF ACTION:

**RAPP ROAD RESIDENTIAL SITE PLAN APPLICATION
222 APARTMENT & TOWNHOUSE STYLE UNITS / 3,900 SQUARE FEET OF COMMERCIAL**

LEAD AGENCY:

Town of Guilderland Planning Board
Guilderland Town Hall
5209 Western Turnpike
Guilderland, New York 12084

APPLICANT:

Rapp Road Development, LLC
4 Clinton Square
Syracuse, NY 13202

CONTACT PERSON:

Kenneth Kovalchik, AICP – Town Planner

DATE OF APPROVAL:

October 28, 2020

THE TOWN OF GUILDERLAND PLANNING BOARD, hereby makes the following findings and determinations:

1. **The Rapp Road Residential Site Plan is in substantial compliance with the Town of Guilderland Comprehensive Plan, Westmere Corridor Study and Transit Oriented Development District Zoning, as follows:**

The Town of Guilderland's [Comprehensive Plan](#), completed in 2001, identifies the following recommendations as some of the priorities for the Westmere neighborhood where the projects have been proposed.

First, the Comprehensive Plan recommends that higher density development should be concentrated within densely populated areas such as the Westmere/McKownville area. The higher density development is most suitable where public transportation is available, where both essential and non-essential services/products are available, and where pedestrian linkages to shopping, recreation, and cultural resources are well developed. Westmere and McKownville provide the most services and the best access to public transportation, but are lacking in recreational facilities and a pedestrian environment.

Second, the Comprehensive Plan recommends that the Town use incentive zoning (bonuses) and financial incentives to help facilitate reinvestment and redevelopment of vacant/underutilized frontage properties along Route 20.

Finally, the Comprehensive Plan suggests that Crossgates Mall Ring Road should be considered as a bypass around congestion on Route 20/Western Avenue, perhaps with a physical linkage over the Northway to Stuyvesant Plaza.

In 2015 and 2016, implementing the Comprehensive Plan's recommendations to develop neighborhood specific plans, the Town engaged a consultant to develop the [Westmere Corridor Study](#), and formed a committee of interested agencies to assist, including representatives from the NYS Department of Transportation, Capital District Transportation Committee, Albany County Department of Public Works, Capital District Transportation Authority, Guilderland Planning Board, Capital District Regional Planning Commission, Westmere Corridor business owners, and Guilderland Industrial Development Authority.

The study was intended to develop a neighborhood plan for the area along Western Avenue between Church Road on the east and State Farm Road and New Karner Road on the west. The study was a year-long planning process that included multiple public meetings and significant involvement from the public.

In December 2016, the Town of Guilderland Town Board (Town Board) accepted the Westmere Corridor Study, the last of the neighborhood studies envisioned by the Town's Comprehensive Plan. The Study was based upon public meetings where residents, local business owners, professional planners, and regional transportation and planning representatives discussed goals and objectives for the Study and provided detailed recommendations.

The Study's area included Western Avenue from the Northway on the east to Route 155 on the west, including parcels with frontage on Western Avenue, and, in particular, the "Crossgates Mall Ring Road, due to its importance to the commercial and traffic characteristics of the area."

Among the Study's core recommendations was the creation of a [Transit Oriented Development \("TOD"\) District](#) in the area of Crossgates Mall which would provide a mix of housing, shopping, entertainment and employment within walking distance (1/2 mile) of the transit center at Crossgates Mall which is planned to be enhanced with a bus rapid transit service. The proposed permitted uses included "a wide range of residential, institutional, retail, service, entertainment and employment uses found in the 'General Business' (GB) District." The Study discouraged, in the area's interior, auto-dependent uses, "such as car dealerships, car rentals, car washes, service garages, drive through windows and other like uses."

At a public hearing on June 5, 2018, the Town Board adopted Local Law No. 4 for the new TOD district recommended in the Study. The TOD's area matched the area recommended in the Study. The TOD imposed regulations to protect existing residential neighborhoods such as requiring additional setbacks from existing residential uses, height limitations, density limitations, and prohibiting commercial uses in certain areas of the TOD.

2. The Rapp Road Residential Site Plan application meets the criteria for issuance of Site Plan approval pursuant to §280-53(H) of Town Zoning Law, as follows:

- a) Full conformance of the site plan with the provisions of this chapter, including site plan guidelines set forth in [§280-39](#) of the Town of Guilderland Town Code.*

Based on the complete [Rapp Road Residential/Western Avenue Mixed Use Redevelopment Projects](#) EIS record and Findings Statement for the EIS, the site plan has been prepared to be in substantial conformance with §280-39 of the Town of Guilderland Town Code related to building and design standards, parking guidelines, access management and pedestrian circulation, and landscaping.

- b) Adequacy and arrangement of vehicular traffic access and circulation, including intersections, road widths, transit accommodations, and traffic controls. Consideration*

will also be given to the project's impact on the overall traffic circulation system of the neighborhood and the Town.

The site plan demonstrates adequate arrangement of vehicular traffic access and circulation, including intersections, road widths, transit accommodations, and traffic controls, and consideration for project's impact on the overall traffic circulation system of the neighborhood and the Town. Access to the project site is provided by two driveways from Rapp Road. The southern, main access, was modified from the original plan to address comments communicated by the Westmere Fire Department. During the SEQRA process, numerous traffic improvements were identified to accommodate traffic in connection with the combined development of the Rapp Road project and the Costco development. The Planning Board's SEQRA Findings Statement notes that improvements to Crossgates Mall Road, including a roundabout at the flyover ramps, will be constructed and operational prior to the opening of Costco to customers. Improvements to Rapp Road included the implementation of Alternative 9 which would be necessary upon the completion of both the Costco and Rapp Road Residential developments. However, the Planning Board has determined that Alternative 9 be implemented in connection with the development of the Rapp Road Residential Project.

A new CDTA bus stop is proposed at the intersection of Rapp Road/Crossgates Mall Road, a few hundred yards from the project site. The CDTA transit center stop at Crossgates Mall is approximately ½ mile away. Rapp Road will be redesigned near the intersection of Gipp Road to implement traffic mitigation measures. The traffic mitigation will reduce the number of vehicles traveling through the Rapp Road corridor and encourage vehicles to utilize Crossgates Mall Road.

c) Adequacy of fire lanes and other emergency zones, traffic circulation and system of fire hydrants.

By [letter dated June 9, 2020](#) Chief Anthony Carrow of the Westmere Fire District confirmed that the Westmere Fire Department determined there will be no significant change in service level required by the Department to serve the proposed uses. They reviewed the plans and determined that the Department "has the necessary personnel, resources, equipment and facilities to support the development".

d) Adequacy and arrangement of pedestrian access and circulation, including, but not solely limited to, separation of pedestrians from vehicular traffic, control of intersections and overall pedestrian convenience, including access and facilities for bicycles.

The Applicant is proposing to construct a 10' wide multi-use trail that will extend from the intersection of Rapp Road/Gipp Road to Western Avenue. The trail will be located on the west side of Rapp Road to the intersection of Crossgates Mall Road/Rapp Road. The trail will then cross to the east side of Rapp Road at the intersection and continue to Western Avenue on the east side of the road. The Applicant is proposing to remove the existing Rapp Road/Crossgates Mall Road 5' wide sidewalk and replace it with the 10' wide multi-use trail. This trail will also link to the existing multi-use trail at the hotel site further to the east.

The Applicant is proposing a 5' sidewalk on the west side of Rapp Road that will extend from the Capital City Diner on Western Avenue and link to the 10' wide multi-use path at the intersection of Crossgates Mall Road/Rapp Road.

The Applicant is also proposing a 5' wide concrete sidewalk extending from the proposed 10' wide multi-use trail just north of the proposed apartments, and will connect to Crossgates Mall on the north side of Macy's.

The proposed sidewalks and multi-use trails will allow not only residents from the proposed apartments and townhouse style units, but also residents from surrounding neighborhoods on Gipp Road and middle and northern sections of Rapp Road to safely and efficiently traverse through this area via a separated pedestrian network. Where the sidewalks or multi-use trails are required to cross roadways, the applicant is proposing to install crosswalks and flashing pedestrian crossing signs.

The pedestrian improvements proposed as part of the Rapp Road residential project will [create a walkable neighborhood](#), which is one of the 10 principles and foundation of a smart growth approach to development. The proposed pedestrian and bicycle facilities are encouraged by, and in compliance with, §280-18.1.G.2 of the Town of Guilderland Town Code to promote the purposes of the TOD District.

e) Location, arrangement, design and general site compatibility of buildings, lighting and signs. As much as it is possible, consideration should be given to noise sources, privacy, prevailing wind directions and seasonal sun movements when locating structures, patios and open spaces on parcels, exhaust fans and outdoor waste disposal locations.

The site plans were modified to accommodate comments from the residents of Westmere Terrace to provide significant screening and noise reduction between that neighborhood and the development. The project meets the area and bulk requirements in the Town Code and is consistent with TOD requirements. Additional in-fill planting is also provided along the western perimeter which will screen and provide additional landscape buffer to the Paden Circle neighborhood.

The two-story buildings proposed on the western side of the site will act as a transition from the existing residential uses on Paden Circle to the 5-story apartment buildings. The five story buildings are situated in closer proximity to Rapp Road and comply with the additional setback requirements from the Westmere Terrace residential district, and is consistent with the TOD building height and setback requirements.

During operation, consistent with Town Code lighting requirements, the parking lot lighting will not exceed 16 feet in height from finished grade and shall have cutoff type luminaires to prevent light above the fixture. The Applicant will install light poles that are no higher than 12-feet in the southern most area closest to Westmere Terrace.

As a result, the location, arrangement, design and general site compatibility of buildings, lighting and signs and gives consideration, as much as it is possible, to noise sources, privacy, prevailing wind directions and seasonal sun movements when locating structures, patios and open spaces on parcels, exhaust fans and outdoor waste disposal locations.

f) Location, arrangement and setting of off-street parking and loading areas.

A total of 333 parking spaces are required and the Applicant is proposing to install 362 parking spaces (278 surface parking spaces and 84 indoor parking spaces). The boulevard driveway will provide 12 parallel parking spaces adjacent to the 5-story buildings.

The location, arrangement and setting of off-street parking and loading areas shown on the site plan is acceptable. The parking facilities meet the minimum and maximum number of spaces required in the Town Code and are appropriately arranged for convenient access of future occupants of the buildings, and pursuant to the landscaping plan, will be more aesthetically appealing

g) Adequacy, type and arrangement of trees, shrubs and other landscaping.

The potential use of native "Pine Bush" species for screening atop the existing and proposed berms is not proposed at this time. Because the purpose of the proposed landscaping is to act as a visual screen between the project and the existing neighboring residential properties, low level "Pine Bush" vegetation species is not preferred. Maintaining the currently existing thick vegetation in the northern berm will encourage wildlife species to continue to migrate to the north and west of the site and act as a buffer to the land uses to the north. It is not the intent of the project to attract endangered species away from the established Pine Bush

Preserve area located to the north of the site with native plantings, but such plantings may be incorporated into the project landscaping.

The Applicant will avoid removal of on-site mature trees near the southern property boundary unless necessary for building development and site improvements so that these existing mature trees will act as a natural buffer to existing residential uses on Westmere Terrace

h) In the case of an apartment building, multiple-dwelling complex or PUD, the adequacy of usable open space for playgrounds and informal recreation.

The site plans indicate a pool will be provided on the north side of the apartment buildings and will be available for all tenants to use. A 10' wide multi-use trail will be constructed along the front portion of the property and will provide pedestrian trail links along the Rapp Road and Crossgates Mall Road corridor. The Applicant will pay an Open Space, Parks and Parkland fees in the amount of \$500.00 per unit to the Town of Guilderland.

i) Adequacy of provisions for the control of stormwater and drainage, sanitary waste and sewage, water supply for fire protection and general consumption, solid waste disposal and snow removal storage areas.

See item 'M' below for discussion of stormwater and drainage. Based on consultations with the Town Department of Water & Wastewater Management, the Town's sewer service possesses adequate capacity to meet the current and future needs of the Town and accommodate the proposed development. Engineering details for the collection, distribution, and treatment of the Project's discharges will be coordinated in consultation with the Town of Guilderland Water/Wastewater Department and the Town Designated Engineer (Delaware Engineering).

By [letter dated February 11, 2020](#), the Town Department of Water and Wastewater Management has indicated that sufficient excess water and sewer capacity exists to accommodate the proposed action, contingent on the sewer being redirected to the Nott Road Waste Water Treatment Plant.

Numerous snow storage areas are indicated on the site plans and should be able to adequately accommodate on-site snow storage.

j) Protection of adjacent properties against noise, glare unsightliness or other objectionable features.

The two neighborhoods closest in proximity to the proposed Rapp Road project are Westmere Terrace, located to the south, and Paden Circle, located to the west. During the early stages of the site plan review process, the Applicant and Town officials engaged the residents in the nearby neighborhoods in a dialogue to address site plan concerns. This resulted in development of site enhancements that includes extensive landscaping, additional berms, and fencing to provide a visual screen and mitigate to the maximum extent practicable any visual and noise impacts for the existing neighborhoods near the project including, but limited to, the following site designs:

1. A new cul-de-sac will be constructed on tax map parcel number 52.09-4-43.2 (28 Westmere Terrace), which is owned by the applicant. The relocated cul-de-sac, berm and plantings will be constructed prior to construction taking place for the Rapp Road apartment/townhome project.
2. A 20-foot high berm along the southern boundary of Rapp Road project is proposed to mitigate to the maximum extent practicable visual and noise impacts to the Westmere Terrace residences, which is in compliance with and encouraged by [§280-18.1.G.3 of the Town of Guilderland Town Code](#).
3. A double row of 12-15 foot tall trees will be planted on top of the berm referenced above, along the southern boundary of the Rapp Road project, to mitigate to the maximum extent practicable visual and noise impacts to Westmere Terrace residences, which is in compliance with and encouraged by [§280-18.1.G.3 of the Town of Guilderland Town Code](#).
4. A double row of 8-10-foot tall pine trees will be planted along the northern boundary of tax map parcel number 52.09-4-43.1 (24-26 Westmere Terrace), which is in compliance with and encouraged by [§280-18.1.G.3 of the Town of Guilderland Town Code](#).
5. A 6-foot high solid panel vinyl fence will be constructed in the following locations to further mitigate to the maximum extent practicable visual and noise impacts to surrounding existing residential uses:
 - i. Along the top of the 20-foot berm at the southern boundary of the Rapp Road apartment/townhome project; the fence will run from the northwest boundary of tax map parcel number 52.09-4-43.2 (28 Westmere Terrace) to the northeast boundary of parcel number 52.10-16 (31 Westmere Terrace).
 - ii. Along the western boundary of tax map parcel number 52.09-4-43.2 (28 Westmere Terrace).

- iii. Along the northern boundary of tax map parcel number 52.09-4-43.1 (24-26 Westmere Terrace).
 - iv. Along the northern boundary of tax map parcel number 52.10-1-6 (31 Westmere Terrace).
6. The existing wood fence along the western boundary of tax map parcel number 52.10-1-25 will be replaced with a 6-feet high solid vinyl fence.
7. The Applicant will install light poles that are no higher than 12-feet in the southern most area closest to Westmere Terrace. The exterior lighting will conform to [§280-28\(C\) \(2\), \(3\) and \(4\) of the Town of Guilderland Town Code](#).
8. The Applicant will avoid removal of on-site mature trees near the southern property boundary unless necessary for building development and site improvements so that these existing mature trees will act as a natural buffer to existing residential uses on Westmere Terrace.
9. The berm along the western border of the project site, which contains existing trees, will be planted with additional 12-15 foot tall double row of trees to further mitigate to the maximum extent practicable visual and noise impacts to residents on Paden Circle, which is in compliance with and encouraged by [§280-18.1.G.3 of the Town of Guilderland Town Code](#).
10. The two-story buildings proposed on the western side of project site will act as a transition from the existing residential uses on Paden Circle to the 5-story apartment buildings. The five story buildings are situated in closer proximity to Rapp Road and comply with the additional setback requirements from the Westmere Terrace and Paden Circle residential districts, and is consistent with the TOD building height and setback requirements.
11. Parking lot lighting will be located and screened without intruding upon the environment or adjacent residential properties. Based on the proximity of the proposed project to the Albany Pine Bush Preserve, sodium vapor lighting is proposed so as to reduce the attraction of such lighting on insects. The lighting will be at least 200 feet south of the established Albany Pine Bush corridor located north of Gipp Road and will conform to the 0.2 foot-candle limit set in the lighting standards of [§280-20 of the Town of Guilderland Town Code](#). The existing trees and vegetation on the 2.4-acre buffer area, just south of Gipp Road, will not be disturbed and will further serve to provide mitigation for any impacts to existing residential uses north of Gipp Road, in the City of Albany.

12. Additional mitigation measures that will be employed on the project site include:

- i. Construction equipment will be properly muffled in accordance with all applicable regulations.
 - ii. Equipment will be required to be properly maintained to reduce noise and vibration.
 - iii. The site will be required to be maintained in an orderly manner during all construction periods. Crews will be responsible for daily maintenance/cleaning of the site.
 - iv. All packaging, demolition and construction debris will be promptly removed from the site by a private waste-hauler and disposed of in an approved construction and demolition debris landfill.
 - v. Demolition of the structures will be in accordance with all state and local laws, rules and regulations.
 - vi. Dust suppression measures will be implemented as required.
 - vii. Erosion control measures will be implemented in accordance with the approved SWPPPs.
- k) Retention of existing trees and vegetation for protection and control of soil erosion, drainage, natural beauty and unusual or valuable ecology, and whether the impacts to sensitive environmental areas have been avoided or minimized to the maximum extent practicable.*

The Applicant will avoid removal of on-site mature trees near the southern property boundary unless necessary for building development and site improvements so that these existing mature trees will act as a natural buffer to existing residential uses on Westmere Terrace.

The site plan provides for retention of existing trees and vegetation for protection and control of soil erosion, drainage, natural beauty and unusual or valuable ecology, and demonstrate that the impacts to sensitive environmental areas have been avoided or minimized to the maximum extent practicable. The site plan maintains the secondary growth woodlands (containing numerous invasive species and filled soils) vegetated 200-foot northern buffer area and the western buffer area, totaling 4.84 acres +/- . The B. Laing Associates Vegetation, Wildlife and Soil Conditions Report Rapp Road Residential Project found that the proposed development of the site does not contain any Albany Pine Bush habitat in its existing condition and soil investigations determined that the site is dominated by Colonie and Elnora, upland soils which have been heavily disturbed over time.

l) Necessary easements and/or construction of sidewalks or bikeways consistent with the Comprehensive Plan.

The Applicant is proposing to construct a 10' wide multi-use trail that will extend from the intersection of Rapp Road/Gipp Road to Western Avenue. The trail will be located on the west side of Rapp Road to the intersection of Crossgates Mall Road/Rapp Road. The trail will then cross to the east side of Rapp Road at the intersection and continue to Western Avenue on the east side of the road. The applicant is proposing to remove the existing Rapp Road/Crossgates Mall Road 5' wide sidewalk and replace it with the 10' wide multi-use trail. This trail will also link to the existing multi-use trail at the hotel site further to the east.

The Applicant is proposing a 5' sidewalk on the west side of Rapp Road that will extend from the Capital City Diner on Western Avenue and link to the 10' wide multi-use path at the intersection of Crossgates Mall Road/Rapp Road.

The Applicant is also proposing a 5' wide concrete sidewalk extending from the proposed 10' wide multi-use trail just north of the proposed apartments, and will connect to Crossgates Mall on the north side of Macy's.

m) Compliance with standards for stormwater management and erosion and sediment control contained in Chapter [241](#) of the Town Code, unless exempted under § [241-23](#).

The project will disturb greater than one acre of land and is therefore subject to the requirements set forth in the NYSDEC Stormwater Management Design Manual (SWMDM) and the NYSDEC SPDES General Permit from Construction Activity (GPO-20-001). A [Stormwater Pollution Prevention Plan](#) was prepared which also contains the Erosion and Sediment Control Plan to be implemented during construction, and a long-term Operation & Maintenance Plan to be followed after construction is complete

As part of these requirements, stormwater from the site is required to be captured and treated based on the qualifications of new development versus redevelopment. The project proposes infiltration practices for stormwater management. Infiltration practices standard stormwater management with the NYSDEC and all practices will be designed to requirements set forth in the NYSDEC SWMDM. By following such requirements, stormwater will meet or exceed the water quantity and quality requirements set forth in the NYSDEC SWMDM.

Infiltration practices will reduce the amount of stormwater entering the Town of Guiderland municipal storm sewer system by promoting groundwater recharge over off-site discharge.

The application materials demonstrate compliance with standards for stormwater management and erosion and sediment control contained in Chapter 241 of the Town Code, unless exempted under §241-23. As noted above, the application includes a Stormwater Pollution Prevention Plan that will be implemented for construction and during operation of the project.

3. Response to Albany County Planning Board NYS General Municipal Law 239-m, n recommendation dated May 13, 2019.

ACPB Recommendation 1. The proposed project is in a Transit Oriented Development (TOD) District. A TOD tries to “support and incentivize development that adequately protects nearby residential neighborhoods and utilizes resources within and near the TOD's (including) direct vehicle access to the interstate highway system and a nearby local business community.” The proposed project fails to comply with the stated goals of TOD in multiple ways:

a. The proposed obstruction of traffic at Gipp Rd. cuts off access to the highway system and business community and is a deviation of typical TOD traffic calming measures.

Town Response: The traffic mitigation alternative selected by the Planning Board does not obstruct traffic at Gipp Road as evidenced by the site plan and traffic mitigation design. One of the purposes of establishing the TOD was to encourage utilization of the Crossgates Mall Road and decrease traffic on Western Avenue, which was highlighted in the Westmere Corridor Study. Once on Crossgates Mall Road, there is ready access to the Northway and NYS Thruway (I-87/I-90) and Washington Avenue Extension.

The US Department of Transportation Federal Highway Administration defines [traffic calming](#) as follows:

“The primary purpose of traffic calming is to support the livability and vitality of residential and commercial areas through improvements in non-motorist safety, mobility, and comfort. These objectives are typically achieved by reducing vehicle speeds or volumes on a single street or a street network. Traffic calming measures consist of horizontal, vertical, lane narrowing, roadside, and other features that use self-enforcing physical or psycho-perception means to produce desired effects.”

Traffic calming improvements that will be implemented include, but may not be limited to, the following:

1. Rapp Road Traffic Mitigation – As a result of the analysis of the numerous potential traffic alternatives, as described in the Final Environmental Impact Statement, several alternatives were determined by the Planning Board to be feasible, reasonable alternatives that address the existing commuter traffic concerns and mitigate traffic

from the projects to the maximum extent practicable by limiting traffic between the Town of Guilderland and the City of Albany.

The site plans show that the Planning Board has selected [Alternative 9](#) as the preferred traffic mitigation option. Alternative 9 discourages traffic from using the southern section of Rapp Road as a means to travel through the middle and northern sections of Rapp Road and Rapp Road Historic District, and was analyzed as part of the [Rapp Road Residential/Western Avenue Mixed Use Redevelopment Project Environmental Impact Statement](#). A connection between Rapp Road and Crossgates Mall Road would insure that City residents on Pine Lane and Wilan Lane would have access to Washington Avenue Extension east-bound by way of the Crossgates Mall Road. Rapp Road is proposed to be terminated near the intersection of Rapp Road/Gipp Road, on the Town of Guilderland side of the municipal boundary with the City of Albany. All traffic would be effectively discouraged from travelling through the Rapp Road Historic District by the inconvenient route required, and the availability of more efficient travel routes. Existing traffic that utilizes Rapp Road to travel to Washington Avenue Extension would also be discouraged from taking the Rapp Road route.

Emergency vehicle access will still be allowed to travel from the north and south of the Rapp Road corridor by using the Crossgates Mall Road and proposed connector road from the mall road to Rapp Road.

On balance, Alternative 9 will mitigate traffic impacts from the projects in the Rapp Road Historic District to the maximum extent practicable and have the added benefit of reducing existing commuter traffic in the Rapp Road corridor. The Final Environmental Impact Statement provided a traffic diversion summary for Alternative 9 as follows:

“The Alternate 9 re-routing of a portion of Rapp Road south of Gipp Road would encourage “existing” traffic that currently uses Rapp Road between Western Avenue and Washington Avenue Extension to use other travel routes such as NYS Route 155 (depending on their origin and destination) or the Crossgates Mall Ring Road and existing I-87/I-90 ramp system. In addition, the Alternate 9 layout would also reduce traffic along Rapp Road through the historical district from the proposed residential and proposed Costco. This alternative could potentially divert 30 - 65 existing vehicles through the historic district during the Weekday Peak AM, Weekday Peak PM and Saturday Peak Hours and reduce the number of vehicles from the proposed residential and proposed Costco development by 13 – 28 vehicles.”

The Town Designated Engineer (GPI) reviewed the traffic diversion summary and in a letter dated [October 7, 2020](#) stated “We feel the applicants Diversion Summary presents a reasonable and conservative estimate of the traffic diversions that could occur with the implementation of the modified Alternative No. 9.”

Alternative 9 is located entirely within the jurisdiction of the Town of Guilderland and can be implemented without any approvals and/or permits from the City of Albany.

2. Removal of Slip Ramps – The existing north bound and south bound slip ramps at the intersection of Crossgates Mall Road/Rapp Road will be removed as part of the Costco project, if approved. The existing slip ramps allow vehicles to travel through this intersection at a high rate of speed, which is unsafe for pedestrians and bicyclists. With the removal of the slip ramps, which will be completed as part of the construction of Costco, all vehicles will now have to utilize the signalized intersection, at a slower rate of speed, which will increase pedestrian and bicycle safety.
3. Street trees will be planted within the existing medians on 3 of the 4 legs of the Crossgates Mall Road/Rapp Road intersection, as part of the Costco project. Field studies have confirmed that when trees are present along streets, there is a change in motorists' behavior with a traffic calming effect. Streets having a [landscaped center strip or median](#) planting may alter drivers' perception of lane width and therefore reduce driving speeds by way of a psychological effect." This psychological effect, also known as an "edge effect," cues motorists to drive more slowly; slower vehicle speeds are associated with fewer crashes and less severe injuries.
4. Complete Streets – A Complete Streets design will be incorporated on Crossgates Mall Road, from the hotel driveway to the vicinity of the Rapp Road/Crossgates Mall Road intersection, and will be reconfigured from four lanes to three lanes and a center turn lane will be added, as part of the Costco project.

[Complete Streets](#) are streets designed and operated to enable safe use and support mobility for all users. Those include people of all ages and abilities, regardless of whether they are travelling as drivers, pedestrians, bicyclists, or public transportation riders. The concept of Complete Streets encompasses many approaches to planning, designing, and operating roadways and rights of way with all users in mind to make the transportation network safer and more efficient. Complete Streets approaches vary based on community context. They may address a wide range of elements, such as sidewalks, bicycle lanes, bus lanes, public transportation stops, crossing opportunities, median islands, accessible pedestrian signals, curb extensions, modified vehicle travel lanes, streetscape, and landscape treatments. Complete Streets reduce motor vehicle related crashes and pedestrian risk.

5. Roundabout – A [roundabout](#) will be constructed at the intersection of Crossgates Mall Road/Fuller Road Alternate (I-87/I-90 Ramps) as part of the Costco project. A roundabout is a circular intersection where drivers travel counterclockwise around a center island. The circular shape is designed to control the direction of traffic and reduce speeds to 15 to 20 mph. There are no traffic signals or stop signs in a roundabout. Drivers yield at entry to traffic in the roundabout, then enter the intersection and exit at their desired location. Studies by the Federal Highway

Administration have found that roundabouts can increase traffic capacity by 30 percent to 50 percent compared to traditional intersections.

The roundabout will be designed to accommodate vehicles of all sizes, including emergency vehicles, buses, and truck and trailer combinations. The circular shape is designed to control the direction of traffic and reduce speeds to 15 to 20 mph, thus creating a traffic calming effect by the vehicle speed reduction. It also reduces the likelihood of t-bone or head-on collisions. A main feature of the roundabout is the raised central island. The central island of the roundabout will include a truck apron, a raised section of concrete that acts as an extra lane for large vehicles so the back wheels of an oversize vehicle can ride up on the truck apron to easily complete the turn. The raised portion of concrete also discourages use by smaller vehicles. In addition to the central island, the roundabout will feature triangular splitter islands designed to slow and direct traffic.

The roundabout has been part of the [Capital District Transit Authority \(CDTA\) Bus Rapid Transit \(purple line\)](#) for several years and has been previously examined by CDTA from a SEQRA perspective. The roundabout will be constructed and operational prior to the opening of Costco to customers. The Costco site was examined as one of the three sites as part of the Environmental Impact Statement.

6. Pedestrian Crossings – Crosswalks and flashing pedestrian signs will be installed at numerous intersections including Crossgates Mall Road and intersection with the Macy's parking lot driveway, multi-use trail crossing at Rapp Road and connector road to the Crossgates Mall Road, and the intersection of Rapp Road/Crossgates Mall Road.

The 6 traffic calming examples described above show the improvements that will be implemented as part of the Rapp Road project and Costco to increase safety for drivers, bicyclists and pedestrians. Additionally, the traffic calming improvements should also increase vehicle safety by slowing vehicle speeds through the corridor which should decrease the number of accidents that are vehicle/vehicle and vehicle/pedestrian related.

The facts presented above show the Town Planning Board more than adequately addressed pedestrian linkages, improved non-automobile oriented modes of transportation, supports mixed use buildings, adequately protected adjacent neighborhoods and implemented traffic calming measures to slow vehicle speeds and increase pedestrian and bicycle safety. All of these proposed improvements proves the Planning Board and applicant have taken steps to implement improvements encouraged by the stated goals of the TOD District.

- b. The proposed project is not appropriately concentrated near existing mass-transit.

Town Response: It is a basic planning tenant that one of the purposes of a TOD is to encourage higher density development within a close distance to a transit center (i.e. one-half mile). A new CDTA bus stop is also proposed at the intersection of Rapp Road/Crossgates Mall Road, which is

in close proximity to the Rapp Road residential project. Additionally, the Rapp Road project is located approximately ½ mile walking distance to the existing transit center at Crossgates Mall, one of the busiest transit stops on CDTA's system.

c. The proposed project does not adequately protect the character of historical and non-historical adjacent neighborhoods.

Town Response: All buildings proposed meet the required setbacks in the TOD District. The 5 story buildings are at least 150' away from the nearest residential district, and the two-story buildings are at the closest 124' away and at the farthest 236' from the property line. The nearest occupied home in the historic district is approximately 700 feet away from the closest proposed structure on the site and separated by a 200-foot wide 2.5+/- acre densely vegetated buffer, Gipp Road and Pine Lane. No structure on the site will be visible from any occupied home in the historic district. Implementation of traffic Alternative 9 will reduce traffic travelling through the City of Albany's Rapp Road Historic District.

d. The proposal does not sufficiently address the preservation of bicycle and pedestrian traffic through a dead end.

Town Response: Multiuse paths and sidewalks are provided as part of the proposed development from the project site to Western Avenue, as well as to Gipp Road at the municipal boundary with the City of Albany. The Applicant has reaffirmed its commitment to work with CDTA to site a new bus stop at a mutually convenient location near the Rapp Road/Crossgates Mall Road intersection to accommodate the project site and the public.

e. The proposed project drastically exceeds the total number of parking spaces required by Town of Guilderland Zoning requirements.

Town Response: A total of 333 parking spaces are required and the applicant is proposing to install 362 parking spaces (278 surface parking spaces and 84 indoor parking spaces). The Town of Guilderland parking requirements provide for a maximum of 125% of the minimum required parking spaces. The project complies with the parking requirements by providing approximately 108% of the minimum required parking spaces.

ACPB Recommendation 2. The solution to dead-end Rapp Road at Gipp Road is problematic:

a. An approved emergency access plan for both municipalities should be submitted with the application.

b. Further traffic studies are needed. It is unclear which percentage of traffic will be diverted to Gipp, and which to the Crossgates Ring Road.

c. The Albany County Planning Board agrees that traffic deterrent initiatives are vital in preserving The Rapp Road Historical District. However, it remains unclear if dead-ending the road at Gipp will result in less traffic through the Historic District.

Town Response: The traffic mitigation alternative selected by the Planning Board is not dead-ending Rapp Road as evidenced on the site plan and traffic mitigation design. In a letter dated October 7, 2020 the Town's designated traffic engineer (Greenman-Pedersen, Inc.) for the Environmental Impact Statement provided the following traffic diversion summary:

Alternate 9 re-routing of a portion of Rapp Road south of Gipp Road would encourage "existing" traffic that currently uses Rapp Road between Western Avenue and Washington Avenue Extension to use other travel routes such as NYS Route 155 (depending on their origin and destination) or the Crossgates Mall Road and existing I-87/I-90 ramp system. In addition, the Alternate 9 layout would also reduce traffic along Rapp Road through the historical district from the proposed residential and proposed Costco. This alternative could potentially divert 30 - 65 existing vehicles through the historic district during the Weekday Peak AM, Weekday Peak PM and Saturday Peak Hours and reduce the number of vehicles from the proposed residential and proposed Costco development by 13 - 28 vehicles.

As part of the SEQRA coordinated review process, the Town coordinated with the City of Albany and the Rapp Road Historic District, Albany Pine Bush Preserve Commission and other stakeholders on multiple occasions regarding potential traffic alternatives to alleviate existing and potential future traffic in the City of Albany. A total of twelve alternatives were given consideration. The SEQRA Lead Agency (Planning Board) identified Alternative 9 as a feasible alternative that mitigates potential adverse traffic impacts to the maximum extent practicable, which will be implemented by the applicant.

ACPB Recommendation 3. New York State General Municipal Law §96-a. Protection of historical places, buildings, and works of art states:

"In addition to any power or authority of a municipal corporation to regulate by planning or zoning laws and regulations or by local laws and regulations, the governing board or local legislative body of any county, city, town, or village is empowered to provide by regulation special conditions and restrictions for the protection, enhancement, perpetuation, and use of places, districts, sites, buildings, structures, works of art, and other objects having a special character or special historical or aesthetic interest or value. Such regulations, special conditions and restrictions may include appropriate and reasonable control of the use or appearance of neighboring private property within public view, or both. "

Town Response: Comment noted. As discussed previously, no structure on the site will be visible from any occupied home in the historic district.

ACPB Recommendation 4. The Rapp Road Historic District was designated to the Nation's list of properties worthy of preservation in 2002. The Director of New York State's Technical Preservation Bureau within the State Historic Preservation Office, has advised that the impact of traffic and high density development as having an adverse impact on the historical preservation of the Rapp Road historical community.

Town Response: The existing deed restricted vegetated buffer area adjacent to Gipp Road will not be disturbed as part of the proposed development. This buffer area restricts views from the historic district to the project site. Additionally, the Applicant is conveying 8.4 acres of land in the City of Albany on the east side of Rapp Road, between the project site and the historic district, to the Pine Bush Preserve Commission, which will further buffer the historic district to the project site.

The Applicant and Town officials have had numerous meetings and discussions with representatives from the Rapp Road Historical Association. The purpose of these discussions was to better understand the traffic issues the neighborhood is dealing with and to provide a traffic mitigation alternative to reduce vehicles traveling through the neighborhood to the greatest extent practicable. Based on comments made by representatives from the Rapp Road Historical Association in recent meetings the members appear to be generally supportive of the efforts of the Town and the applicant to mitigate traffic.

September 16, 2020 Pine Bush Neighborhood meeting. At around the 45-minute mark of the meeting is when the discussion starts regarding the proposed traffic mitigation on Rapp Road. The meeting can be viewed by clicking [here](#).

September 30, 2020 Friends of the Pine Bush Community meeting. At around the 1-hour mark of the meeting is when the discussion begins related to the Rapp Road Historical Association history with Pyramid and speak relatively positive about their most recent interactions related to the proposed development, as well as noting the support they've received from the Town of Guilderland in regards to traffic on Rapp Road. The meeting can be viewed by clicking [here](#).

ACPB Recommendation 5. The origin of the Historical Rapp Road community is an African American community that migrated from Shubuta, Mississippi during the Great Migration. The community is singular in the Albany County in its living presentation of the agrarian lifestyle that remained intact through a community's chain migration to the north and the subsequent five generations. Multiple decedent families from the original property owners still live on Rapp Road. The Great Migration was the largest migration of United States citizens in American History that culminated in the mass urbanization of most of the migrants. The historical Rapp Road community provides an alternate and unique oral and living history that is increasingly hard to maintain as development and density continues to encroach.

Town Response: The Rapp Road Historical Association has been generally supportive of the Town and applicant in the efforts to mitigate traffic through the historic neighborhood. This is evidenced by comments made by members of the Rapp Road Historical Association in the two meeting videos provided above.

ACPB Recommendation 6. Two 5 story buildings, with +/- 3,900 of ground floor commercial space are antithetical to the community character that currently exist along Rapp Road now. The degree of difference in height and density between the proposed development and existing residential development with frontage on Rapp Road is significant.

Town Response: The uses proposed as part of the Rapp Road project are permitted uses under the Town's TOD zoning district at this site, and complies with all area and bulk requirements in the TOD district.

ACPB Recommendation 7. Sections C.2.b., E.2.n., E.2.0, E.2.p., E.3.c, E.3.h, and D.1.b.b. on the Full Environmental Assessment Form is incorrectly filled out and provides inaccurate information.

Town Response: Comment noted and has been addressed.

ACPB Recommendation 8. The application should include the results of a coordinated SEQR review, including a DEIS.

Town Response: The Planning Board, as lead agency, completed an Environmental Impact Statement for the [Rapp Road Residential/Western Avenue Mixed Use Redevelopment Projects](#).

The applicant also provided a response to the ACPB recommendations in a [letter dated July 3, 2019](#).

4. Conditions of Site Plan Approval:

Town Highway Superintendent Approval
Town Water and Wastewater Superintendent Approval
Town Designated Engineer Approval

Based on the FEIS and [SEQRA Findings Statement](#), the Planning Board requires the following mitigation measures identified during the SEQRA process be implemented as conditions of development of the Rapp Road Residential project.

A. Westmere Terrace.

In order to provide a visual screen and mitigate to the maximum extent practicable any noise impacts for the existing neighborhoods near Site 1:

- A new cul-de-sac will be constructed on tax map parcel number 52.09-4-43.2 (28 Westmere Terrace), which is owned by the applicant. The relocated cul-de-sac, berm and plantings will be constructed prior to construction taking place on the Site 1.
- A 20-foot high berm along the southern boundary of Site 1 is proposed to mitigate to the maximum extent practicable visual and noise impacts to the Westmere Terrace residences, which is in compliance with and encouraged by [§280-18.1.G.3 of the Town of Guilderland Town Code](#).
- A double row of 12-15 foot tall trees will be planted on top of the berm referenced above, along the southern boundary of Site 1, to mitigate to the maximum extent practicable visual and noise impacts to Westmere terrace residences, which is in compliance with and encouraged by [§280-18.1.G.3 of the Town of Guilderland Town Code](#)
- A double row of 8-10-feet tall pine trees will be planted along the northern boundary of tax map parcel number 52.09-4-43.1 (24-26 Westmere Terrace), which is in compliance with and encouraged by [§280-18.1.G.3 of the Town of Guilderland Town Code](#).
- A 6-foot high solid panel vinyl fence will be constructed in the following locations to further mitigate to the maximum extent practicable visual and noise impacts to surrounding existing residential uses:
 - (i) along the top of the 20-foot berm at the southern boundary of Site 1; the fence will run from the northwest boundary of tax map parcel number 52.09-4-43.2 (28 Westmere Terrace) to the northeast boundary of parcel number 52.10-1-6 (31 Westmere Terrace).
 - (ii) along the western boundary of tax map parcel number 52.09-4-43.2 (28 Westmere Terrace).
 - (iii) along the northern boundary of tax map parcel number 52.09-4-43.1 (24-26 Westmere Terrace).
 - (iv) along the northern boundary of tax map parcel number 52.10-1-6 (31 Westmere Terrace).
- The existing wood fence along the western boundary of tax map parcel number 52.10-1-25 will be replaced with a 6-feet high solid vinyl fence.
- The Applicant will install light poles that are no higher than 12-feet in the southern most area closest to Westmere Terrace. The exterior lighting will conform to [Town Code §280-28\(C\) \(2\), \(3\) and \(4\)](#).
- The Applicant will avoid removal of on-site mature trees near the southern property boundary unless necessary for building development and site improvements so that these existing mature trees will act as a natural buffer to existing residential uses on Westmere Terrace.

- The berm along the western border of Site 1, which contains existing trees, will be planted with additional 12-15 foot tall double row of trees to further mitigate to the maximum extent practicable visual and noise impacts, which is in compliance with and encouraged by [§280-18.1.G.3 of the Town of Guilderland Town Code](#).
- All construction work will comply with the Town's Noise Ordinance.
- Construction hours for building construction and site work on the site near Westmere Terrace shall be between 7:00 AM and 5:00 PM, Monday through Friday and 9:00 AM to 4:00 PM on Saturday with no construction activities on Sundays or holidays (New Year's Day, Memorial Day, July 4, Labor Day, Thanksgiving and Christmas).
- The parking lot lighting will not exceed 16 feet in height from finished grade and shall have cutoff type luminaires to prevent light above the fixture. The Applicant will install light poles that are no higher than 12-feet in the southern most area closest to Westmere Terrace. The exterior lighting will conform to [Town of Guilderland Town Code §280-28\(C\) \(2\), \(3\) and \(4\)](#).
- In an attempt to mitigate traffic concerns of Westmere Terrace residents exiting to Western Avenue, the Applicant and Town offered to construct a one-way exit road at the northern end of Westmere Terrace to Rapp Road, a Town Road. The residents of Westmere Terrace rejected this alternative and this mitigative measure will not be implemented. A Westmere Terrace resident had discussed this same issue of exiting Westmere Terrace to Western Avenue with the NYS Department of Transportation in 1994. In a letter dated [October 7, 1994](#), the NYSDOT recommended a similar mitigation option of a one-way exit road from Westmere Terrace to Rapp Road. The residents of Westmere Terrace rejected this option in 1994. This sentiment was also recently expressed by the residents of Westmere Terrace in an email dated September 9, 2020.

B. Traffic Improvements.

1. The November 14, 2018, Maser Consulting Traffic Study performed in connection with the Rapp Road Residential project found that this project would not result in significant traffic volumes traveling north and south on Rapp Road. The Traffic Study concluded: the project "will not significantly affect area roadways. Similar Levels of Service and delays will be experienced under Future No-Build and Future Build Conditions."
2. Regarding the Rapp Road Residential Apartment project, Part 3 of the Full Environmental Assessment Form stated: "Based on the information in Parts 1 and 2 and the entire record before the Planning Board, including expert environmental reports, the proposed action consisting of the development of 222 apartments... will not have a significant adverse impact on the environment."
3. The Planning Board's SEQRA Findings Statement which analyzed the Rapp Road Apartment Project, and the Costco development and potential future development on

Site 3, evaluated the cumulative potential traffic impacts and multiple traffic alternatives to Rapp Road in an effort to decrease existing and future traffic volumes on upper Rapp Road. The Findings Statement states: “several alternatives were determined by the Planning Board to be feasible, reasonable alternatives that address the existing commuter and development related traffic concerns by limiting traffic between the Town of Guilderland and the City of Albany. Of the ... five alternatives, **Alternative 9 is the only one located entirely within the Town of Guilderland and will be implemented in the absence of an agreement with the City of Albany to implement one of the other Alternatives partially located within the City.**”

4. On balance, Alternative 9 will mitigate traffic impacts from the projects in the Rapp Road Historic District to the maximum extent practicable and have the added benefit of reducing existing commuter traffic in the Rapp Road corridor. The reduced traffic in the vicinity of the Karner Blue Butterfly migration corridor would also be an environmental benefit.
5. The Planning Board determines, notwithstanding the November 14, 2018 Traffic Study’s conclusion that there will be no adverse traffic impacts resulting from development of the Rapp Road Residential Project on traffic volumes travelling north-south through the Rapp Road Historic District or on Levels of Service at nearby intersections, as part of the Rapp Road Residential Project the applicant shall construct and implement traffic Alternative 9, which will mitigate traffic impacts on upper Rapp Road to the maximum extent practicable when considering the potential cumulative traffic impacts from development on Sites 1, 2 and 3.
6. Rapp Road Traffic Mitigation – As a result of the analysis of the numerous potential traffic alternatives, as described in the Final Environmental Impact Statement, several alternatives were determined by the Planning Board to be feasible, reasonable alternatives that address the existing commuter traffic concerns and mitigate traffic from the projects to the maximum extent practicable by limiting traffic between the Town of Guilderland and the City of Albany.

The site plans show that the Planning Board has selected [Alternative 9](#) as the preferred traffic mitigation option. Alternative 9 discourages traffic from using the southern section of Rapp Road as a means to travel through the middle and northern sections of Rapp Road and Rapp Road Historic District, and was analyzed as part of the [Rapp Road Residential/Western Avenue Mixed Use Redevelopment Project Environmental Impact Statement](#). A connection between Rapp Road and Crossgates Mall Road would insure that City residents on Pine Lane and Wilan Lane would have access to Washington Avenue Extension east-bound by way of the Crossgates Mall Road. Rapp Road is proposed to be terminated near the intersection of Rapp Road/Gipp Road, on the Town of Guilderland side of the municipal boundary with the City of Albany. All traffic would be effectively discouraged from travelling through the Rapp Road Historic District by the inconvenient route required, and the availability of more efficient travel routes. Existing

traffic that utilizes Rapp Road to travel to Washington Avenue Extension would also be discouraged from taking the Rapp Road route.

Emergency vehicle access will still be allowed to travel from the north and south of the Rapp Road corridor by using the Crossgates Mall Road and proposed connector road from the mall road to Rapp Road.

On balance, Alternative 9 will mitigate traffic impacts from the projects in the Rapp Road Historic District to the maximum extent practicable and have the added benefit of reducing existing commuter traffic in the Rapp Road corridor. The Final Environmental Impact Statement provided a traffic diversion summary for Alternative 9 as follows:

“The Alternate 9 re-routing of a portion of Rapp Road south of Gipp Road would encourage “existing” traffic that currently uses Rapp Road between Western Avenue and Washington Avenue Extension to use other travel routes such as NYS Route 155 (depending on their origin and destination) or the Crossgates Mall Ring Road and existing I-87/I-90 ramp system. In addition, the Alternate 9 layout would also reduce traffic along Rapp Road through the historical district from the proposed residential and proposed Costco. This alternative could potentially divert 30 - 65 existing vehicles through the historic district during the Weekday Peak AM, Weekday Peak PM and Saturday Peak Hours and reduce the number of vehicles from the proposed residential and proposed Costco development by 13 – 28 vehicles.”

The Town Designated Engineer (GPI) reviewed the traffic diversion summary and in a letter dated [October 7, 2020](#) stated “We feel the applicants Diversion Summary presents a reasonable and conservative estimate of the traffic diversions that could occur with the implementation of the modified Alternative No. 9.”

Alternative 9 is located entirely within the jurisdiction of the Town of Guilderland and can be implemented without any approvals and/or permits from the City of Albany.

7. Removal of Slip Ramps – As provided in the FEIS and SEQRA Findings Statement, in the event that Costco is approved, the existing north bound and south bound slip ramps at the intersection of Crossgates Mall Road/Rapp Road will be removed. The existing slip ramps allow vehicles to travel through this intersection at a high rate of speed, which is unsafe for pedestrians and bicyclists. With the removal of the slip ramps, which will be completed as part of the construction of Costco, all vehicles will now have to utilize the signalized intersection, at a slower rate of speed, which will increase pedestrian and bicycle safety.
8. As provided in the FEIS and SEQRA Findings Statement, in the event that Costco is approved. The street trees will be planted within the existing medians on 3 of the 4 legs of the Crossgates Mall Road/Rapp Road intersection. Field studies have confirmed that

when trees are present along streets, there is a change in motorists' behavior with a traffic calming effect. Streets having a [landscaped center strip or median](#) planting may alter drivers' perception of lane width and therefore reduce driving speeds by way of a psychological effect." This psychological effect, also known as an "edge effect," cues motorists to drive more slowly; slower vehicle speeds are associated with fewer crashes and less severe injuries.

9. Complete Streets – As provided in the FEIS and SEQRA Findings Statement, in the event that Costco is approved, a Complete Streets design will be incorporated on Crossgates Mall Road, from the hotel driveway to the vicinity of the Rapp Road/Crossgates Mall Road intersection, and will be reconfigured from four lanes to two lanes with a center turn lane will be added.

[Complete Streets](#) are streets designed and operated to enable safe use and support mobility for all users. Those include people of all ages and abilities, regardless of whether they are travelling as drivers, pedestrians, bicyclists, or public transportation riders. The concept of Complete Streets encompasses many approaches to planning, designing, and operating roadways and rights of way with all users in mind to make the transportation network safer and more efficient. Complete Streets approaches vary based on community context. They may address a wide range of elements, such as sidewalks, bicycle lanes, bus lanes, public transportation stops, crossing opportunities, median islands, accessible pedestrian signals, curb extensions, modified vehicle travel lanes, streetscape, and landscape treatments. Complete Streets reduce motor vehicle related crashes and pedestrian risk.

10. Roundabout – As provided in the FEIS and SEQRA Findings Statement, in the event that Costco is approved, a [roundabout](#) will be constructed at the intersection of Crossgates Mall Road/Fuller Road Alternate (I-87/I-90 Ramps). A roundabout is a circular intersection where drivers travel counterclockwise around a center island. The circular shape is designed to control the direction of traffic and reduce speeds to 15 to 20 mph. There are no traffic signals or stop signs in a roundabout. Drivers yield at entry to traffic in the roundabout, then enter the intersection and exit at their desired location. Studies by the Federal Highway Administration have found that roundabouts can increase traffic capacity by 30 percent to 50 percent compared to traditional intersections.

The roundabout will be designed to accommodate vehicles of all sizes, including emergency vehicles, buses, and truck and trailer combinations. The circular shape is designed to control the direction of traffic and reduce speeds to 15 to 20 mph, thus creating a traffic calming effect by the vehicle speed reduction. It also reduces the likelihood of t-bone or head-on collisions. A main feature of the roundabout is the raised central island. The central island of the roundabout will include a truck apron, a raised section of concrete that acts as an extra lane for large vehicles so the back wheels of an oversize vehicle can ride up on the truck apron to easily complete the turn. The raised portion of concrete also discourages use by smaller vehicles. In addition to the

central island, the roundabout will feature triangular splitter islands designed to slow and direct traffic.

The roundabout has been part of the [Capital District Transit Authority \(CDTA\) Bus Rapid Transit \(purple line\)](#) for several years and has been previously examined by CDTA from a SEQRA perspective. The roundabout will be constructed and operational prior to the opening of Costco to customers. The Costco site was examined as one of the three sites as part of the Environmental Impact Statement.

11. Pedestrian Crossings – Crosswalks and flashing pedestrian signs will be installed at numerous intersections including Crossgates Mall Road and intersection with the Macy's parking lot driveway, multi-use trail crossing at Rapp Road and connector road to the Crossgates Mall Road, and the intersection of Rapp Road/Crossgates Mall Road.

Conclusion

During the past 2 years the Planning Board has dedicated one year to conduct an extensive and thorough environmental review, as shown by the SEQR Positive Declaration and subsequent preparation of the Rapp Road Residential/Western Avenue Mixed Use Redevelopment Projects Environmental Impact Statement (EIS). The Findings Statement for the EIS was completed and published on August 28, 2020. The record shows the Planning Board has taken a hard look at the environmental impacts, mitigated those impacts to the maximum extent practicable, and have incorporated site plan designs based on the EIS Findings Statements and comments received from the public and interested and involved agencies. The Applicant incorporated site plan designs that comply with recommendations from the Town Comprehensive Plan, Westmere Corridor Study and TOD District zoning regulations.



STATE ENVIRONMENTAL QUALITY REVIEW FINDINGS STATEMENT

Pursuant to Article 8 (State Environmental Quality Review Act – SEQRA) of the Environmental Conservation Law and 6 New York Codes, Rules and Regulations (NYCRR) Part 617, the Planning Board of the Town of Guilderland, New York (hereinafter “Planning Board”), as Lead Agency, makes the following findings:

NAME OF ACTION:

**RAPP ROAD RESIDENTIAL / WESTERN AVENUE
MIXED USE REDEVELOPMENT PROJECTS**

LEAD AGENCY:

Town of Guilderland Planning Board
Guilderland Town Hall
5209 Western Turnpike
Guilderland, New York 12084
Hon. Peter G. Barber, Supervisor

CONTACT PERSON:

Kenneth Kovalchik, AICP – Town Planner

DATE DEIS FILED:

February 19, 2020

DATE FEIS FILED:

July 31, 2020

I. PROJECT DESCRIPTION AND HISTORY

1. In November 2018, Rapp Road Development, Inc. (the "project sponsor") submitted site plan and subdivision applications to the Planning Board together with a Full Environmental Assessment Form seeking approval of development of 222 one and two bedroom apartments in five buildings with underground and surface parking on a ±19 acre site on Rapp Road (["Site 1"](#)). The application also included analysis of a potential development scenario of 90 apartment units for Site 1 strictly for the purposes of analysis of all potential future cumulative impacts (the "Rapp Road Project").
2. On July 10, 2019, pursuant to the New York State Environmental Quality Review Act and its implementing regulations ("SEQRA"), the Planning Board determined to act as SEQRA Lead Agency.
3. Since the Rapp Road Project is in the immediate vicinity of two other developable sites within the Town's Transit Oriented Development ("TOD") District that are owned or controlled by entities affiliated with the project sponsor that utilize the same transportation and municipal facilities, the Planning Board determined that there may be a potential significant cumulative environmental impact associated with the development of all three sites which should be evaluated in a Draft Environmental Impact Statement.
4. The second development area identified by the Planning Board and evaluated in the DEIS is located within the TOD at the intersection of Crossgates Mall Road and Western Avenue (["Site 2"](#)) and is analyzed for development of a potential ±160,000 square feet Costco store and fueling facility on ±16 acres (the "Costco Project").
5. The third development area is located on ±11.34 acres of TOD zoned property between Site 2 and the hotel site (["Site 3"](#)). There are no development plans for this acreage and a hypothetical zoning compliant site plan was analyzed conceptually in the DEIS for a potential ±115,000 SF retail, 50,000 SF office space, and 48 apartments project.
6. Collectively, the Rapp Road Project, the Costco Project and the potential development on Site 3 constitute the proposed action.
7. On August 14, 2019 the Planning Board, as SEQRA Lead Agency, adopted a resolution issuing a [Positive Declaration](#) requiring a cumulative impact analysis of the larger "proposed action" described in Part 3 of the EAF, requiring that a Draft Environmental Impact Statement ("DEIS") be prepared for the three-site "proposed action," and that a public Scoping procedure be undertaken to determine the content of the DEIS; and
8. The Positive Declaration states that:

[T]wo public meetings were held by the Planning Board on the proposed Rapp Road Residential project, and written comment letters were received from agencies and members of the public. Several commenters indicated

that the environmental review should include the preparation of an environmental impact statement. Based on this record, and giving consideration to the development potential of additional TOD zoned lands under ownership or control of the Applicant that will utilize the same transportation network and municipal utilities, the Planning Board has determined to undertake a cumulative impact review of the areas described in Part 3 of the EAF and shown on the attached plan.

9. The Planning Board determined to accept written comments on the [Draft Scope](#) for a total of 59 days and, on October 23, 2019, after due consideration, adopted the Final Scope.
10. On November 12, 2019, Crossgates Releaseco, LLC filed an application to the Town of Guilderland Zoning Board of Appeals seeking approval of a Special Use Permit to construct a Costco with fueling facility on Site 2.
11. The proposed DEIS was evaluated by the Planning Board, its professional consultants, and Town staff who recommended that the Planning Board accept the DEIS “as complete and adequate with respect to its scope and content for the purpose of commencing public review.” 6 NYCRR 617.9(a)(2).
12. On [February 12, 2020](#), the Planning Board accepted the DEIS as complete and commenced the public comment period on that document on February 20, 2020.
13. The SEQRA Regulations require a minimum of 30 days for the public comment period on the DEIS [6 NYCRR 617.9(a)(3)], in addition, the Planning Board determined to conduct a public hearing on the DEIS, although not required, for March 11, 2020. The public hearing was delayed first due to the failure of the official Town newspaper to timely publish the notice of the public hearing, and ultimately the rescheduled date was postponed until May 13 as a result of the COVID-19 pandemic.
14. On [May 13, 2020](#), the Planning Board held a remote/virtual public hearing in accordance with the New York State Governor’s Executive Orders for public hearings during the COVID 19 pandemic which lasted over four hours with approximately [100 speakers](#).
15. Under 6 NYCRR 617.12(a)(2)(iii), the public comment period remained open for an additional 10-day period, until to May 26th, allowing a total of 96 days of public comment on the DEIS. [Over 600 written public comments were submitted](#) to the Lead Agency during the public comment period.
16. The [Final Environmental Impact Statement](#) (“FEIS”) was prepared upon the close of the public comment period, which, consistent with SQERA, consists of the following documents:
 - The DEIS, by reference.
 - Any necessary corrections or revisions to the DEIS.

- Copies of comments received, indicating their source (correspondence, hearing, etc.).
- The minutes of the public hearing.
- The Lead Agency's responses to substantive comments.

17. The FEIS identified, examined and evaluated relevant areas of environmental concern, including responses to substantive comments received, on the following topics:

- Biological, Terrestrial and Ecology
- Historic, Cultural and Archeological Resources
- Traffic and Transportation
- Land Use and Zoning
- Character of the Community/Neighborhood
- Schools, Community Facilities and Municipal Services
- Air Quality and Noise
- Municipal Revenues and Finances
- Alternatives
- Water Resources
- Miscellaneous

18. To provide comprehensive and thorough responses, the FEIS contains supplementary analyses, information, and confirmatory documentation when appropriate to aid the Planning Board in its analytical and decision-making obligations under SEQRA.

19. As more fully discussed in the FEIS, the additional information and/or confirmatory analyses contained in the FEIS amplify and further examine issues examined in the DEIS as a result of comments received from the involved agencies and the public. The additional information and analyses are consistent with the examination of issues contained in the DEIS and do not result in the identification of any new or different significant adverse environmental effects. Based on these considerations, the Planning Board determined that a supplemental environmental impact statement is not warranted or required and would not aid the Planning Board in analyzing the proposed action and otherwise perform its obligations under SEQRA.

20. The FEIS was evaluated by the Town's designated engineers – Delaware Engineering and Greenman Pederson – as well as Town Planning Staff and other Town Departments for substance, completeness and accuracy with all concluding that the FEIS properly responds to substantive comments and recommending that the FEIS be adopted.

21. Substantive comments were received from the public, NYS Department of Transportation, Office of Parks Recreation and Historic Preservation, Albany County Planning Board, Albany Pine Bush Preserve Commission, Save the Pine Bush, and their consultants, the Rapp Road Historic District, City of Albany, town officials and consulting traffic engineers, that resulted in revisions to the proposed action and a number of mitigation measures identified which are discussed in detail in Section 3 of this Findings Statement.

22. On [July 29, 2020](#), the Planning Board, as Lead Agency, adopted the FEIS.

23. The FEIS includes and considers the most accurate, current and complete information available concerning the environmental aspects of the Project. It incorporates the DEIS by reference, sets forth revisions and supplements to the DEIS and contains copies of, and responses to, all substantive comments, thus enhancing the thoroughness and detail of the environmental analysis conducted by the Planning Board.

24. On July 31, 2020 a Notice of Completion was filed with the NYSDEC Environmental Notice Bulletin (ENB).

25. The FEIS was used by the Town Planning Board, as SEQRA Lead Agency, to make these written findings herein regarding the potential environmental effects of the proposed action and has enabled the Board to weigh and balance the relevant environmental impacts along with social, economic, and other essential considerations to determine whether the proposed action will minimize or avoid environmental impacts to the maximum extent practicable.

II. FINDINGS

Based on the record before the Planning Board, including the information set forth in the accepted DEIS and FEIS, all comments made during the public comment period and public hearings, the knowledge and familiarity of the Planning Board with Sites 1, 2, and 3, and Crossgates Mall and its surrounding areas where the proposed action is contemplated, the following findings are made:

1. Biological, Terrestrial and Ecology

Albany Pine Bush Preserve Commission and Management Plan

a. In 1988, the New York State Legislature established the Albany Pine Bush Preserve Commission for the purposes of managing lands dedicated to and establishing the Albany Pine Bush Preserve. In accordance with the legislation, in 1993 the Commission adopted the first Management Plan/Final Environmental Impact Statement, which sets forth proposals for the management of pitch pine-scrub oak barrens habitat.

b. The Management Plan examined a 19+ square mile area of lands located in Albany County which is divided into three categories: existing Pine Bush Preserve, Primary Protection Area and Secondary Protection Area.

c. As the Pine Bush Preserve has grown over the years, the Albany Pine Bush Preserve Commission has created new management plan updates for the Preserve. Most recently, the Albany Pine Bush Preserve Commission adopted the [2017 Management Plan Update](#) for the Albany Pine Bush Preserve.

d. The DEIS and FEIS contain extensive analysis of all the Sites under the 2017 Management Plan Update. See, e.g. [DEIS Section 3.3](#) and [FEIS Section 2.1](#). It is noted that Site 2 is a redevelopment project of a former residential area with municipal infrastructure fronting on Western Avenue.

e. The Albany Pine Bush Preserve Commission concurred both in writing and at the public hearing stating:

The proposal for Site 1 will result in the irreversible loss of the ability to protect and manage 19.68 acres recommended for partial protection (Area 57). We do not disagree with the conclusions regarding potential impacts to listed wildlife species, and the fact that the site is highly degraded and dominated by invasive plant species. However, the soils analysis indicates the site supports APB soils and could be restorable to pitch pine-scrub oak barrens (PPSOB). As such, the applicant's proposed mitigation to offset the loss of this restorable acreage on Site 1 is appreciated and consistent with the site's Partial Protection recommendation.

Proposed mitigation includes:

- protecting approximately 8.4 acres within [Full Protection Areas 62 and 79](#) by the applicant conveying fee title to the Commission;
- providing new/updated indoor and outdoor education/outreach space highlighting KBB and [PPSOB](#) conservation, the APBP, and the applicant's role in balancing conservation and economic development in the APB;
- modifying Rapp Road to improve ecosystem function within the KBB corridor; and
- maintaining a heavily forested 200-foot permanent buffer near Gipp Road in [Partial Protection Area 57](#).

Regarding Sites 2 and 3, the Albany Pine Bush Preserve Commission found:

f. The proposed and conceptual development described for Sites 2 and 3, respectively, are not within areas recommended for protection in the 2017 Management Plan Update. Consequently, their development is unlikely to result in significant adverse impacts on APBPC's ability to create and manage a viable preserve. Native plant landscaping, LED exterior lights, and eliminating non-native invasive plants on Sites 2 and 3 would be consistent with APBPC comments for other non-protection areas in the APB Study Area.

g. Studies prepared by B. Laing Associates, which are set forth in the DEIS and FEIS, determined there will be no significant adverse impacts from the Site 1 development from temperature increases, parking lot lighting, shading from the building, or increased automobile emissions.

h. The DEIS and FEIS and other information submitted by the Applicant includes expert reports which conclude that Site 1 does not support valuable Pine Bush habitat, cannot feasibly be transformed to valuable Pine Bush habitat, is not suitable for fire management due to the proximity

of major expanses of paved areas and extensive commercial and residential development. The Albany Pine Bush Preserve Commission, however, did note that it has plans to attempt [fire management](#) in the vicinity.

i. The Planning Board also notes that several Pine Bush Management plans have been adopted and updated over the years concerning acquisition and management of lands to be incorporated and managed as part of a viable Pine Bush Preserve. These plans are incorporated into the DEIS and FEIS. Based on the foregoing and the various recent developments concerning the establishment of the Pine Bush Preserve (see FEIS Section 2.1), the Albany Pine Bush Preserve Commission has advised the Planning Board that Site 1 and Sites 2 and 3 are not necessary or appropriate for incorporation into the Pine Bush Preserve.

j. The Planning Board has considered the current [Management Plan](#) as it concerns the proposed action, and the written and oral comments received from the Albany Pine Bush Preserve Commission, and has determined that the proposed action will not negatively impact or impede those efforts of the Commission to create and maintain a viable Preserve Area.

k. As part of the proposed action the Applicant has proposed mitigative measures, which have received the support of the Albany Pine Bush Preserve Commission and NYSDEC, consisting of:

Voluntarily conveyance of a ±6.8 acre parcel to the Commission (Tax Map parcel no. 52.02-1-16) identified as “Area 62” on the Pine Bush Management Plan, as well as Tax Map parcels 52.06-2-35 (±1.0 acre) and 52.06-2-29.1 (±0.60 acres) totaling 8.4 acres of land designated for Full Protection.

This land conveyance supports expansion of the existing Karner Blue Hill Preserve and migration corridor by providing an improved protected linkage to the Pine Bush Preserve lands to the west.

l. Area #62 has very sandy, dry soils and contains pitch pine-scrub oak vegetation, typical of the Albany Pine Bush. This area is adjacent to and north of the Karner Blue Hill Preserve which is managed by NYSDEC and the Albany Pine Bush Preserve Commission. Area 62 contains a mature overstory tree canopy. With an extension of the Karner Blue Hill Preserve corridor northward, the area would significantly contribute to available Karner Blue Butterfly habitat in that area. This conveyance will enable expanded management, and continue to foster, the [recovery plan](#) for the [Karner Blue Butterfly](#) (KBB).

m. As noted above, both the Albany Pine Bush Preserve Commission and the New York State Department of Environmental Conservation support this proposed mitigation. In a [July 10, 2019](#) correspondence, NYSDEC supported this proposed conveyance stating:

The proposal by Crossgates to convey the three parcels on the east side of Rapp Road is beneficial. The opportunities provided by transfer of these parcels are likely to provide much greater benefit for KBB management efforts than what may be lost as a result of this project’s development. It

should be noted, however, that one of the parcels is already partially encumbered as part of the defined KBB Management Area.

n. The DEIS and FEIS contain extensive and detailed analysis concerning endangered and threatened listed species – the Karner Blue Butterfly, Frosted Elfin and Northern Long eared bat, as well as several species of Special Concern, including, among others, the Spadefoot Toad, Worm Snake, Eastern Hog-Nosed Snake, numerous other avian species, other butterflies and moths and their habitat as well as vegetation species. Special concern species do not have regulatory status, nevertheless such species were examined in detail in the EIS's. The professional reports concluded that there would be no potential significant adverse environmental impacts on any of such species as a result of the proposed action.

While the record indicates the likely presence of the more common species of bats on the three project sites, these sites were analyzed with regards to their potential for endangered and threatened bat species and none were found. The record also provides that consultations with NYSDEC have shown that no endangered bat species are known to exist at this location.

Acoustic survey information demonstrates that the most likely *Myotis* species on the sites is the common Little Brown Bat. An analysis of that survey data indicates the proposed development is not likely to impact the survival of any bat species due to the development area being characterized as one modest patch of summer bat habitat.

o. Regarding cumulative impacts of the proposed action with other projects in the Albany Pine Bush and the ability of the Commission to achieve and maintain a viable Pine Bush Preserve, the analysis in the DEIS and FEIS establish that there are no other projects that considered together with the proposed action that will negatively impact the ability of the Albany Pine Bush Preserve Commission to establish and maintain a viable Pine Bush Preserve. Moreover, 1) the sites are not appropriate or suitable for incorporation to the Preserve; 2) the sites do not provide suitable habitat and restoration is not feasible; 3) the 200-foot buffer on the northern perimeter of Site 1 will be maintained; 4) other more suitable habitat will be conveyed to the Albany Pine Bush Preserve Commission to help facilitate its goals and objectives of the Commission, and 5) both NYSDEC and the Albany Pine Bush Preserve Commission support the donation of land, and the Albany Pine Bush Preserve Commission found that the development on Site 1 will not impact its ability to manage and establish a viable Pine Bush Preserve. Therefore, there will be no such potential adverse cumulative impacts as a result of the proposed action.

2. Historic, Cultural and Archeological Resources and Traffic Alternatives

- a. All of the sites have been the subject of a Cultural Resources Survey prepared by Hartgen Archeological Associates, Inc. The [Phase I](#) Archeological Investigation Land West of Rapp Road and [Phase I](#) Archeological Investigation, Western Avenue Mixed Use Redevelopment the Lawton and Gabriel Terrace Neighborhood. Each archaeological investigation concluded that no archeological or historical resources are known to exist or expected to occur on the proposed project areas.
- b. The [Rapp Road Historic District](#) is located north of Site 1 by approximately 1,300 feet and across the municipal boundary between the Town of Guilderland and the City of Albany. Rapp Road is classified as a Minor Arterial Highway connecting US Route 20/Western Avenue with Washington Avenue Extension.
- c. As described in the DEIS, in 2002, the Historic District was created as a result of the Great Migration (1927-1963) and has remained intact with descendants of the original homeowners for 90 years. The families who migrated predominately from Shubuta, Mississippi to Albany, New York built their Rapp Road homes, mostly by hand, and relied on scrap materials from deteriorating buildings throughout the City of Albany. The buildings were built as small southern-style homes, similar in style to the former Shubuta, Mississippi homes.
- d. The existing 200-foot wide perimeter buffer on the north side of the Site 1 is densely vegetated with mature trees. This buffer will be maintained and continue to provide a visual buffer between the proposed development on Site 1 and the residences in the Historic District.
- e. Based on comments from the residents within the Historic District, existing traffic volumes from commuters and other traffic generators within the District are high and an increase in traffic volumes will cause a negative impact. The DEIS contains a Traffic Impact Study prepared by Maser Consulting which concluded that there would not be a significant adverse impact on traffic conditions within the Historic District with Levels of Service at the South Frontage Road/Washington Avenue/Springsteen Road intersection maintaining acceptable Levels of Service.
- f. The New York State Office of Parks, Recreation and Historic Preservation Office provided several letters regarding:
 - [March 11, 2019](#) Letter to the Town Planning Board Chairman – finding that their “office has assessed both the archaeological and historical impacts that might be associated with this action. Based upon this review, it is the OPRHP’s opinion that the project, as submitted, will not impact cultural resources in or eligible for inclusion in the State and National Register of Historic Places.”
 - [April 3, 2019](#) Letter to the Albany County Planning Board – Reversing its prior position and stating that commuter and shopper traffic “is now having a

profound, direct and negative impact on the serene rural qualities that the first settlers sought as their refuge from the city of Albany”.

- [June 14, 2019](#) Letter to the Town Planning Board Chairman – Supporting the potential alternative of a road closure to protect the historic district from increasing traffic.
 - [March 26, 2020](#) Letter to the Town Planner – stating that their “office continues to support alternatives that will eliminate the use of Rapp Road (within the Historic District) as a bypass for non-residential traffic.”
 - [August 12, 2020](#) Letter to the Town Planner – stating that their “office continues to find that adding any additional traffic to Rapp Road will be detrimental to the district...”
- g. Although none of these comments provided any specific support or opposition to the several alternatives analyzed in the DEIS, in response to the comments raised by residents in the Historic District, SHPO and the City of Albany, and others, additional alternatives were analyzed in the FEIS.
- h. As a result of the analysis of the numerous potential traffic alternatives, as described in the FEIS, several alternatives were determined by the Planning Board to be feasible, reasonable alternatives that address the existing commuter traffic concerns and mitigate traffic from the projects to the maximum extent practicable by limiting traffic between the Town of Guilderland and the City of Albany.

[Alternative 1](#) has not been identified as an acceptable Alternative as a result of traffic impacts and environmental concerns. Alternative 1 would relocate the existing travel corridor through the Rapp Road Historic District by terminating Rapp Road just north of Pine Lane. North-south commuter and project related traffic on Rapp Road would be re-routed to a new road located east of several houses in the Rapp Road Historic District. (the “Eastern By-Pass”) effectively relocating traffic from their front yards to their backyards. The Eastern By-Pass would be constructed in Area 62, a parcel adjacent to the Karner Blue Butterfly migration corridor and designated as requiring “Full Protection” under the Albany Pine Bush Management Plan.

All emergency vehicle access to the Rapp Road Historic District would be from the Frontage Road in the City of Albany.

Alternative 1 is the only Alternative found to be acceptable to the City of Albany. The Rapp Road Historic District and Albany Pine Bush Preserve Commission opposed implementation of Alternative 1. The City’s only preferred alternative (the Eastern By-Pass) has been evaluated and determined, on balance, to potentially cause more environmental harm, such as bisecting the existing Karner Blue Butterfly Corridor with a new road, at higher speeds, which has the additional

negative impact of more noise impacts, than this Alternative might provide. It also would eliminate the proposed conveyance of 8.4 acres of land to the Albany Pine Bush Preserve Commission by the Applicant to create an expanded Karner Blue Butterfly corridor area, which is considered to be another environmental negative of this Alternative. Additionally, stormwater management features would need to be designed implemented to accommodate the new paved area.

Alternative 9 - terminates any direct connection via Rapp Road between the Projects and the Rapp Road Historic District. A connection between Rapp Road and the shopping center ring road would insure that City residents on Pine Lane and Wilan Lane would have access to Washington Avenue Extension east-bound by way of the Crossgates Mall Ring Road, but traffic from the Site 1 apartments, the Site 2 Costco development and Site 3 would be effectively discouraged from travelling through the Rapp Road Historic District by the inconvenient route required, and the availability of more efficient travel routes. Existing traffic that goes to Washington Avenue Extension would also be discouraged from taking this route.

Emergency vehicle access from the north and south would be permitted via a bollard-protected connection between lower and upper Rapp Road.

On balance, Alternative 9 will mitigate traffic impacts from the projects in the Rapp Road Historic District to the maximum extent practicable and have the added benefit of reducing existing commuter traffic in the Rapp Road corridor.

Alternative 9 is located entirely within the jurisdiction of the Town of Guilderland and will be implemented in the event the City of Albany declines to participate in the implementation of any of the other acceptable Alternatives

Alternative 5A – terminates the connection between the Rapp Road Historic District on northern Rapp Road and the projects on southern Rapp Road and Crossgates Mall Road. This Alternative would eliminate both existing commuter traffic and project related traffic from the south. Access to and from Gipp Road would be from the south only and Pine Lane and Wilan Lane would be accessible exclusively from the north. No emergency vehicle access would be available between the northerly and southerly sections of Rapp Road.

Alternative 5A would reduce existing commuter traffic and mitigate project related traffic to the maximum extent practicable. The Rapp Road Historic District has identified Alternative 5A as the preferred Alternative. Alternative 5A is within the City of Albany and its implementation would require cooperation and participation by the City of Albany.

Alternative 5D – dead-ends the northernmost segment of Rapp Road at its intersection with Springsteen Road, and restores two-way traffic on Springsteen, providing north and south bound traffic access to and from Washington Avenue Extension. All access to the northernmost segment of Rapp Road, including emergency vehicle access, would be from the north via the Frontage Road.

Alternative 5D would eliminate all traffic, including commuter traffic and Project related traffic, from the segment of Rapp Road located north of the Rapp/Springsteen intersection in the Rapp Road Historic District, and would mitigate traffic impacts from commuter traffic and the projects on the northernmost segment of Rapp Road..

Alternative 5D is located entirely within the jurisdiction of the City of Albany and its implementation would require the cooperation and participation by the City of Albany.

Alternative 4/6. The Planning Board has also considered an alternative which combines the elements of two alternatives presented in the record, Alternatives 4 and 6. This alternative would re-route Gipp Road through the northern 200' buffer in the northwest corner of Site 1 and connect the Gipp Road traffic to the northernmost internal access drive on Site 1, move the Gipp Road/Rapp Road intersection to the south, and establish a cross-connection to the Crossgates Mall ring road at the new Gipp Road intersection with Rapp Road. A realignment of the internal Crossgates ring road would make this cross connection work more efficiently. The alternative 4 component of this alternative calls for the segment of Rapp Road north of this intersection to be converted to one-way south bound, thereby eliminating all northbound commuter and project generated traffic from travelling through the Rapp Road Historic District

North bound emergency vehicle access would require vehicles to proceed northbound over the short one-way southbound segment of Rapp Road north of the relocated Gipp Road/Rapp Road intersection. Southbound emergency vehicle access would continue in its current pattern.

As with Alternative 6, this combined alternative would impact a portion of the forested 200' northerly buffer between the apartment development on Site 1 and the Albany Pine Bush Commission protected lands to the north of the current location of Gipp Road. However, this alternative would remove the segment of Gipp Road within the Karner blue butterfly migratory corridor and limit traffic to one way on Rapp Road within this migratory corridor. The rerouting of Gipp Road would create a wider more contiguous wildlife migratory corridor and combined with restricting traffic to one way southbound, reduce traffic that currently bisects the corridor significantly.

This combined alternative would (1.) re-route east and north-bound Gipp Road traffic to the Crossgates Mall ring road, (2.) eliminate all north-bound commuter and project-related traffic from entering northern Rapp Road and the Rapp Road Historic District. This combined alternative would also significantly reduce existing commuter and project-related traffic impacts within the Rapp Road Historic District.

Several components of this combined alternative are located in the City of Albany and its implementation would require the cooperation and participation of the City.

Alternative 4/5D/6. Finally, the Planning Board has also considered an alternative which combines the elements of three alternatives presented in the record, Alternatives 4, 5D, and 6. This alternative would add the road improvements identified in Alternative 5D to the Alternative 4/6 alternative described above. - The Alternative 5D component of this plan would terminate the northernmost segment of Rapp Road at its intersection with Springsteen Road, and convert Springsteen Road back to two-way traffic. 100% of the pass-by traffic is eliminated in the section of upper Rapp Road between Columbia Circle (service road) and Springsteen Road.

Emergency vehicle access to the new dead-end northernmost segment of Rapp Road would be available only from the Frontage Road.

As described above with respect to Alternative 4/6, this combined alternative would also impact a portion of the forested 200' northerly buffer between the apartment development on Site 1 and the Albany Pine Bush Commission protected lands to the north of the current location of Gipp Road. However, as noted above, the rerouting of Gipp Road and traffic reductions along Rapp Road have environmental benefits for the Pine Bush habitat and existing Preserve lands.

This combined alternative would (1.) re-route east and north-bound Gipp Road traffic to the Crossgates Mall ring road, (2.) eliminate all north-bound commuter and project-related traffic from entering northern Rapp Road and the Rapp Road Historic District, and (3.) eliminate all traffic, including commuter traffic and project related traffic, from the segment of Rapp Road located north of the Rapp/Springsteen intersection in the Rapp Road Historic District.

This combined alternative would significantly reduce existing commuter and project-related traffic impacts within the Rapp Road Historic District

Several components of this combined alternative are located in the City of Albany and its implementation would require the cooperation and participation of the City.

3. Traffic and Transportation

- a. A [Traffic Impact Study](#) analyzing the potential cumulative impacts of development of Sites 1, 2 and 3 was prepared by Maser Consulting, PA for this Project (the “Traffic Study”). The Traffic Study evaluates the impact of projected increases in traffic and the anticipated effects of the Project on transportation-related use and infrastructure.
- b. The [Traffic Study](#) was reviewed by and comments were received from the New York State Department of Transportation, the Town designated traffic engineering consultant, Greeman Pederson, Inc. (“GPI”), the Albany County Department of Public Works, the Albany County Planning Board, and the City of Albany. In addition, substantive comments on the Traffic Study were received from individuals and outside consulting engineering firms. The Traffic Study includes supplemental analyses provided by Maser in response to comments by NYSDOT, GPI, the Town’s traffic consultant and others.
- c. The Planning Board retained GPI to provide traffic engineering expertise for its review and evaluation of the Maser Traffic Study. GPI submitted two review and comment letters into the record, and Maser provided written responses to all GPI comments.
- d. VHB, a traffic engineering firm, conducted a region-wide intersection safety study for the Capital District Transportation Committee. The intersection of Rapp Road and Crossgates Mall Road was among the ten intersections in the Capital District selected for evaluation, and the [VHB study recommended certain modifications to the intersection](#). These modifications have been adopted by the Applicant and are included in its traffic mitigation plans.
- e. Access to the three Sites is currently provided by Washington Avenue Extension, US Route 20, the Northway, Rapp Road and Crossgates Mall Road. On and off ramps service the Crossgates Mall ring road from Washington Avenue Extension from both east and westbound lanes. Similarly, access to and from the Northway is provided by two separate inbound and outbound service ramps/flyovers. Access to US Route 20 exists at the Mall main entrance. These roadways provide connections to the New York State Thruway (I-90) and the New York State Thruway/Northway (I-87).
- f. Based upon the location, proposed use, estimated number of trips and input from the Town of Guilderland and their consulting engineer and public review of the Draft Scope, the study area intersections that were assessed include the following:
 - Westmere Terrace and Western Avenue
 - Western Avenue and Crossgates Mall Driveway
 - Western Avenue and Gabriel Terrace
 - Western Avenue and Crossgates Mall Road/Johnston Road
 - Rapp Road and Crossgates Mall Road
 - Rapp Road and Gipp Road

- Rapp Road and Pine Lane
- Rapp Road and Springsteen Road
- Springsteen Road and S. Frontage Road
- Washington Avenue Extension and Springsteen Road/Crossgates Commons
- Crossgates Mall Road and I-87 On/Off Ramp
- Crossgates Mall Road and Crossgates Mall Entrance #1
- Crossgates Mall Road and Crossgates Mall Entrance #2 / Hotel Access
- Crossgates Mall Road and Crossgates Mall Driveway (from Western Avenue)
- Crossgates Mall Road/Proposed Site Driveways
- Crossgates Mall Road/proposed Gabriel Terrace Extension
- South Frontage Road and Rapp Road

- g. The traffic counts for the AM Peak Hour were taken during September/October when schools were open. The AM Peak Hour is not seasonally impacted by Mall traffic since the Mall is not in full operation during this peak hour. Peak times for Mall traffic are during the months of November/December. The Traffic Study utilizes Peak PM and Peak Midday Saturday Hours taken during this period of time.
- h. The trip generation levels employed in the Traffic Study were based on industry standard [Institute of Transportation Engineers Trip Generation Manual, 10th Edition](#) calculations and were found to be reasonable by NYSDOT and the Town-designated traffic engineer, GPI.
- i. A detailed description of each of the Study Area intersections, including existing and future levels of service is provided in the Traffic Impact Study. The Traffic Study concluded:

As summarized in this Study and as shown on the Level of Service Summary Table No. 3, the proposed Rapp Road Residential (Site 1) and Costco (Site 2) developments will not result in a significant impact on the existing roadway network. Similar Levels of Service and delays will be experienced under Future 2022 No-Build and 2022 Future Build Conditions. In addition, as also analyzed in this Study and as shown on Level of Service Summary Table No. 6, the future potential Rapp Road Residential development area identified on Site 1 and future potential Western Avenue Mixed-Use (Site 3) will not result in a significant impact on the existing roadway network. Similar Levels of Service and delays will be experienced under Future 2025 No-Build and 2025 Future Build Conditions.

- j. Based upon comments from the public, NYS Department of Transportation, interested and involved agencies, town officials and consulting engineers, the Applicant has agreed to facilitate all of the traffic improvements summarized below. The items will be completed prior to Costco opening for business to customers, unless otherwise noted.

Roundabout at Crossgates Mall Road and Fuller Road Alternate (I-87/I-90 Ramps)

A roundabout will be constructed on [Crossgates Mall Road and the Fuller Road Alternate ramps](#) to/from I-87/I-90 intersection.

A roundabout is a circular intersection where drivers travel counterclockwise around a center island. The circular shape is designed to control the direction of traffic and reduce speeds to 15 to 20 mph. There are no traffic signals or stop signs in a roundabout. Drivers yield at entry to traffic in the roundabout, then enter the intersection and exit at their desired location. Studies by the Federal Highway Administration have found that roundabouts can increase traffic capacity by 30 percent to 50 percent compared to traditional intersections.

The roundabout will be designed to accommodate vehicles of all sizes, including emergency vehicles, buses, and truck and trailer combinations. The circular shape is designed to control the direction of traffic and reduce speeds to 15 to 20 mph. It also reduces the likelihood of t-bone or head-on collisions. A main feature of the roundabout is the raised central island. The central island of the roundabout will include a truck apron, a raised section of concrete that acts as an extra lane for large vehicles so the back wheels of an oversize vehicle can ride up on the truck apron to easily complete the turn. The raised portion of concrete also discourages use by smaller vehicles. In addition to the central island, the roundabout will feature triangular splitter islands designed to slow and direct traffic.

The roundabout has been part of the [Capital District Transit Authority \(CDTA\) Bus Rapid Transit \(purple line\)](#) for several years and has been previously examined by CDTA from a SEQRA perspective. The roundabout will be constructed and operational prior to the opening of Costco to customers on Site 2.

Roundabouts are a preferred method to address and mitigate vehicle emissions. Installing roundabouts in place of traffic signals or stop signs has been found to reduce carbon monoxide emissions by 15-45 percent, nitrous oxide emissions by 21-44 percent, carbon dioxide emissions by 23-34 percent and hydrocarbon emissions by 0-40 percent.

Gabriel Terrace intersection with Crossgates Mall Road

The primary access for Sites 2 (Costco) and Site 3 will be at [Gabriel Terrace and Crossgates Mall Road](#). The Gabriel Terrace intersection will be located east of the mall driveway on the west side of Dick's Sporting Goods, resulting in two "T" intersections. As part of a Complete Streets design, a center turn-lane will be provided on Crossgates Mall Road. In the future, the primary access to Site 3 will also be from Crossgates Mall Road via the Gabriel Terrace Road and Hotel Connector Road.

Gabriel Terrace Intersection with Western Avenue

Access to and from Gabriel Terrace at Western Avenue will be restricted to right turn in / right turn out movements only.

Costco Driveway Entrances from Crossgates Mall Road

The northernmost driveway (main) access to Costco from Crossgates Mall Road (between Western Avenue and Rapp Road) will be restricted to a right turn in /right turn out movements only. Similarly, the southernmost driveway access to the fueling area will be restricted to a right turn in only. Both driveways will be designed to prohibit left turns.

Crossgates Mall Road

A [Complete Streets](#) design will be incorporated on Crossgates Mall Road, from the hotel driveway to the vicinity of Rapp Road, and will be reconfigured from four lanes to three lanes and a center turn lane will be added.

Crossgates Mall Road and Rapp Road

As a means to increase pedestrian and vehicle safety and incorporate a Complete Streets design on Crossgates Mall Road, the channelized right turns from Rapp Road to Crossgates Mall Road (southbound) and Crossgates Mall Road (eastbound) will be eliminated to create a four-way intersection. These right turns will now be made at lower speeds under signal control to improve safety as per the recommendations of a regional intersection safety study conducted by VHB on behalf of the Capital District Transportation Committee.

Western Avenue and Johnston Road / Crossgates Mall Road

At the intersections identified below, the Applicant has recommended signal timing adjustments to maintain similar operating conditions. Modems will be provided as per NYSDOT specs as a means to adjust signal timings as needed.

1. Western Avenue and Crossgates Mall Driveway
2. Western Avenue and Johnston Road/Rapp Road

In connection with the development of Site 3, for the 2025 Design Year, the Applicant will construct a westbound right turn lane on Western Avenue at Johnston Road/ Rapp Road (Crossgates Mall Road).

Western Avenue Driveway Closures

As requested by the NYS Department of Transportation, approximately seven (7) existing Western Avenue driveways for properties owned by the applicant within Site 2 and Site 3 will be eliminated in coordination with the development of Site 2. [Driveway consolidation](#) is a method supported by DOT for improving vehicle safety.

Rapp Road

The Planning Board, as Lead Agency, has considered multiple alternatives designed to alleviate traffic in the Rapp Road Historic District located north of Site 1, at the north end of Rapp Road. Findings related to these Alternatives are found at Section 2 of this Findings Statement, Historic, Cultural and Archeological Resources.

- k. From a traffic perspective, the Traffic Impact Study shows that the Levels of Service along Rapp Road through the Rapp Road Historical District will continue to operate at acceptable LOS “C” or better during Peak Hours after development of the Project. See, Findings at Section 2 of this Findings Statement, Historic, Cultural Resources with respect to Findings related to alternative road improvements as mitigation for character of the Historic District.
- l. The City of Albany advised the Planning Board that it takes no position on the overall continued development on the Pyramid and Crossgates Mall parcels, provided that the impacts to nearby Albany residents and neighborhoods are mitigated.
- m. Public transportation is currently provided to Crossgates Mall by the Capital District Transportation Authority (“CDTA”).
- n. Crossgates is one of the busiest stop within the CDTA system and is served by seven (7) bus routes (Routes 10, 12, 114, 117, 155, 190 and 712). Over the last year CDTA has reported there were more than 300,000 boarding’s and 330,000 alighting’s annually. Additionally, in 2019 Crossgates and CDTA jointly relocated the transit center on Crossgates property to provide for improved access and updated facilities.
- o. CDTA has advised the Planning Board that it supports Crossgates and Pyramid and CDTA will continue efforts to secure state and federal funding for the Bus Rapid Transit line to the Crossgates area. CDTA also advised the Planning Board that it supports Pyramid’s development and look forward to working with them to enhance service and connect people to economic opportunities. This work resulted in the creation of a Transit-Oriented Development District (TOD) which includes areas on and around Western Avenue, more specifically, Crossgates Mall. As one of the busiest stops in the CDTA system and the number one retail destination for transit customers, combined efforts of the Town, Crossgates and CDTA will significantly reduce the number of automobiles and emissions that would be drawn to the area without CDTA’s services.
- p. Westmere Terrace is a dead-end residential street comprised of 27 residences, located west of the intersection of Crossgates Mall Road and Western Avenue. The unsignalized intersection of Westmere Terrace and Western Avenue experiences significant delays under current conditions that will increase if the Project is developed. The Applicant has proposed to construct a one-way north-bound connection from the north end of Westmere Terrace to Crossgates Mall Road, giving the residents of

Westmere Terrace access to the signalized intersection at Crossgates Mall Road and Western Avenue.

In meetings with Town officials and the Applicant, the residents of Westmere Terrace have rejected this alternative access solution. The record includes a [1994 letter from NYSDOT](#) recommending the same alternate access plan for Westmere Terrace. More recently, in conversations with DOT, Town officials were informed that the signal spacing between the Westmere Fire Station signal on Western Avenue and Crossgates Mall Road/Johnston Road/Western Avenue signalized intersection were too close to include a new signalized intersection at Westmere Terrace and Western Avenue. DOT reiterated their comments from their 1994 letter that a one way exit road could be provided from the Westmere Terrace cul-de-sac to Rapp Road to allow residents easy and safe vehicular access to the traffic signal at Rapp Road/Western Avenue.

- q. It should be noted that for unsignalized intersections, it is not uncommon for the side road (Westmere Terrace) to operate with delays while the major road (Western Avenue) operates at better Levels of Service. The Site 2 development is projected to add 80 new trips (an increase in traffic of 2.5 %) during the Peak PM Hour and 113 new trips (an increase in traffic of 4.5 %) during the Peak Saturday Hour along Western Avenue at Westmere Terrace.
- r. The Applicant's plans present a reasonable concept plan for [bicycle and pedestrian connectivity](#) in the Crossgates Mall area. The Town will conduct a review of each proposed component of this plan and its implementation during its site plan and special use permit reviews.

4. Land Use and Zoning

- a. Properties surrounding the proposed uses on Site 1-3 include Crossgates Mall, restaurants, a cemetery, gas stations, a shopping plaza, apartments, residential uses and vacant land. See also Findings Statement Section 5 - Character of the Community/Neighborhood for description of area.
- b. The Town Board adopted the [Transit-Oriented Development \(TOD\) District](#) legislation as a primary recommendation from the [Westmere Corridor Study](#), completed in December 2016, after a year-long planning process that included extensive public participation. The Town Board's determination to establish the TOD and the permitted uses was completed as part of a 6 month long public participation process. As part of that process the Town Board established zoning restrictions, such as additional setbacks from existing residential uses and limiting land uses west of Rapp Road to protect existing residential land uses. The Town Board authorized General Business (GB) District and Multiple Residence (MR) District land uses as either a permitted site plan use or special use.
- c. The Rapp Road apartment/townhome project is a permitted use within the TOD, subject to issuance of site plan approval by the Planning Board, and meets all area and bulk requirements for the district, including increased building setback requirements. It is the only type of permitted use on Site 1.
- d. Prior to the issuance of the [Positive Declaration](#) in August 2019 requiring a DEIS analysis of cumulative impacts arising from the development of the Rapp Road Project on Site 1 together with additional development on TOD zoned lands making up Sites 2 and 3, the Planning Board had already undertaken a nine month SEQRA review of the Rapp Road apartment project. Part 3 of the Full Environmental Assessment Form and Positive Declaration provides that based on "...the entire record before the Planning Board, including the expert environmental report, the proposed project consisting of 222 apartments on 19.68 acres will not have a significant effect on the environment." The record also includes analyses of any future development of an additional 90 apartments in Site 1 and supports the conclusion that development of these units would not have a significant effect on the environment. A site plan application for approval of these additional 90 units would be required to be approved by the Planning Board.
- e. The Costco Project on Site 2 is a permitted use within the TOD, subject to issuance of a Special Use Permit by the Town Zoning Board of Appeals. Permitted uses in this area include "regional shopping centers" and "General Retail" and "automobile service centers, including gas service stations.
- f. [New York statutes](#) define a special use permit as the authorization of a particular land use that is permitted in a zoning law subject to specific requirements that are imposed to assure that the proposed use is in harmony with the immediate neighborhood and

will not adversely affect the surrounding properties. It is well established law in New York that the inclusion of special use permit uses in a zoning code is tantamount to a legislative finding that the permitted use is in harmony with and compatible to existing adjacent land uses, and will not adversely affect those uses.

- g. The overall proposed action includes numerous features consistent with the Town's land use plans.
- h. The proposed action includes all uses specifically listed as permitted uses in the TOD and meets all area and bulk requirements. These include commercial, residential and office uses. The plan proposes numerous other TOD features, such as pedestrian and bicycle accommodations, new connector road to Crossgates Mall Road that will also serve as access to Site 3, when it is eventually developed. Changes to the Crossgates Mall Road to reduce the number of lanes from 4 to 3 with a center turning lane and reconfigured Rapp Road/Crossgates Mall intersection to eliminate two slip ramp that will reduce vehicular speed. In addition, seven (7) driveways will be eliminated on Western Avenue. A new multi-use trail will be provided on the west side of Rapp Road, from the vicinity of Gipp Road to Western Avenue. A new CDTA bus stop will be installed at the intersection of Rapp Road/Crossgates Mall Road. A new pedestrian crossing will be installed at the intersection of Gabriel Terrace/Crossgates Mall Road. All of these design improvements incorporate a Complete Streets design by designing a roadway for all uses, not just vehicular uses. The Complete Streets design will allow pedestrian connectivity from existing neighborhoods and proposed residential uses on Site 1 and Site 3 to commercial uses such as Crossgates Mall, proposed Costco, and existing retail uses along the Western Avenue corridor. The pedestrian and bicycle facilities proposed are in compliance with and encouraged by [§280-18.1.G.2 of the Town of Guilderland Town Code](#).
- i. [Complete Streets](#) are streets designed and operated to enable safe use and support mobility for all users. Those include people of all ages and abilities, regardless of whether they are travelling as drivers, pedestrians, bicyclists, or public transportation riders. The concept of Complete Streets encompasses many approaches to planning, designing, and operating roadways and rights of way with all users in mind to make the transportation network safer and more efficient. Complete Streets approaches vary based on community context. They may address a wide range of elements, such as sidewalks, bicycle lanes, bus lanes, public transportation stops, crossing opportunities, median islands, accessible pedestrian signals, curb extensions, modified vehicle travel lanes, streetscape, and landscape treatments. Complete Streets reduce motor vehicle-related crashes and pedestrian risk.
- j. The adoption of the [Transit-Oriented Development District](#) (TOD) was created to implement the recommendations of the [Westmere Corridor Study](#), which promotes elements consistent with the objectives of Complete Streets design.
- k. Various elements of Complete Streets can include the following:

- Sidewalks, crosswalks, raised crosswalks, curb ramps, pedestrian control signals
 - Road diets, lane striping, bicycle lanes, paved shoulders suitable for use by bicyclists, signage, curb cuts
 - Traffic calming measures, curb extensions, bus bulbs, gateways, speed humps, speed tables
 - Transit streets with dedicated bus lanes, bus pull-outs, and
 - Stormwater management – bioswales, flow through planters and pervious surfaces.
- l. Over the last several years, companies affiliated with the applicant included components of Complete Streets as part of the construction of the Homewood Suites / Tru by Hilton hotels, with the addition of enhanced pedestrian / bicycle safety and the recently relocated and enhanced Crossgates CDTA transit center.
- m. Proposed improvements outlined in the FEIS is also consistent with the objectives of Complete Streets design elements:
- (i) The Roundabout at the I-87/FRA ramps at Crossgates Mall along with the lane reduction on a portion of Crossgates Mall Road.
 - (ii) Should the CDTA move forward with the BRT Purple bus line enhancements, a second roundabout could be constructed in place of the English Couplet road entrances to Crossgates Mall from Western Avenue.
 - (iii) Removal of the channelized right turn lanes at Rapp Road and Crossgates Mall Road provide a traffic calming measure that will improve pedestrian and bicycle access through the intersection by including right turn movements and pedestrian improvements to the traffic signal.
 - (iv) The reconfiguration of a portion of Crossgates Mall Road from the hotel driveway to Rapp Road is considered a “Road Diet” by reducing the segment from four lanes to three lanes with a center turn lane. The lane reduction is a traffic calming measure.
 - (v) Unsignalized T-intersections will be constructed at Gabriel Terrace / Crossgates Mall Road creating an off-set intersection with the Mall Driveway / Crossgates Mall Road to the west. An enhanced pedestrian crosswalk will be constructed at the Mall Driveway / Crossgates Mall Road to the west.
 - (vi) Proposed traffic mitigation/roadway realignment in the area of Rapp Road to minimize existing and future traffic to the Rapp Road Historic neighborhood.

- (vii) Reasonable multi-use trail and sidewalk improvements are planned as a part of the Site 1, Site 2 and Site 3 developments that are on property owned by the Applicant.
 - (viii) As referenced above, the newly relocated and enhanced Crossgates CDTA transit center with seven (7) bus lines servicing the center from various parts of the Capital Region promote public transit.
 - (ix) The integration of sidewalks, bike lanes and other amenities encourages physical exercise by creating an environment that encourages walking, jogging and bicycling.
 - (x) The addition of the roundabout will improve air quality by reducing carbon dioxide (CO2) emissions.
- n. The proposed action consists of permitted uses within the TOD and incorporates numerous access and circulation design features to facilitate the goals and objective of the TOD legislation, particularly [§280-18.1.G.1 of the Town of Guilderland Town Code.](#)

5. Character of the Community/Neighborhood

- a. The area in the vicinity of the Project is a mix of extensive commercial and business uses on Western Avenue and Washington Avenue and residential streets (Westmere Terrace, Paden Circle, Gipp Road, Pine Lane, Wilan Lane and Upper Rapp Road). The predominant land use in the immediate area of the Project is Crossgates Mall, a 1.7 million square foot regional shopping center.
- b. With respect to Site 1, specific restrictions in the TOD District for property west of Rapp Road limits permitted uses to only multi-family dwellings, which may include certain ground floor commercial uses. The development proposed for Site 1 complies in all respects with the requirements of the Transit-Oriented Development (TOD) District, including building height, setbacks, greenspace, density and design standards.
- c. Site 1 is located on a commuter connector road, Rapp Road, which is classified by the Federal Highway Administration as an Urban Minor Arterial. Rapp Road links two FHWA Principal Arterials, U.S. Route 20 and Washington Avenue Extension.
- d. To the south of Site 1 is the Westmere Terrace neighborhood and to the west is a National Grid right of way and the Paden Circle neighborhood. During the early stages of the site plan review process for Site 1, the Project Sponsor and Town officials engaged the residents in the nearby neighborhoods in a dialogue to address site plan concerns. This resulted in development of site enhancements that includes extensive landscaping, additional berms, and fencing to provide a visual screen and mitigate to the maximum extent practicable any noise impacts for the existing neighborhoods near Site 1 including:
 - A new cul-de-sac will be constructed on tax map parcel number 52.09-4-43.2 (28 Westmere Terrace), which is owned by the applicant. The relocated cul-de-sac, berm and plantings will be constructed prior to construction taking place on the Site 1.
 - A 20-foot high berm along the southern boundary of Site 1 is proposed to mitigate to the maximum extent practicable visual and noise impacts to the Westmere Terrace residences, which is in compliance with and encouraged by [§280-18.1.G.3 of the Town of Guilderland Town Code](#).
 - A double row of 12-15 foot tall trees will be planted on top of the berm referenced above, along the southern boundary of Site 1, to mitigate to the maximum extent practicable visual and noise impacts to Westmere terrace residences, which is in compliance with and encouraged by [§280-18.1.G.3 of the Town of Guilderland Town Code](#)
 - A double row of 8-10-feet tall pine trees will be planted along the northern boundary of tax map parcel number 52.09-4-43.1 (24-26 Westmere Terrace), which

is in compliance with and encouraged by [§280-18.1.G.3 of the Town of Guilderland Town Code](#).

- A 6-foot high solid panel vinyl fence will be constructed in the following locations to further mitigate to the maximum extent practicable visual and noise impacts to surrounding existing residential uses:
 - (i) along the top of the 20-foot berm at the southern boundary of Site 1; the fence will run from the northwest boundary of tax map parcel number 52.09-4-43.2 (28 Westmere Terrace) to the northeast boundary of parcel number 52.10-1-6 (31 Westmere Terrace).
 - (ii) along the western boundary of tax map parcel number 52.09-4-43.2 (28 Westmere Terrace).
 - (iii) along the northern boundary of tax map parcel number 52.09-4-43.1 (24-26 Westmere Terrace).
 - (iv) along the northern boundary of tax map parcel number 52.10-1-6 (31 Westmere Terrace).
- The existing wood fence along the western boundary of tax map parcel number 52.10-1-25 will be replaced with a 6-feet high solid vinyl fence.
- The Applicant will install light poles that are no higher than 12-feet in the southern most area closest to Westmere Terrace. The exterior lighting will conform to [Town Code §280-28\(C\) \(2\), \(3\) and \(4\)](#).
- The Applicant will avoid removal of on-site mature trees near the southern property boundary unless necessary for building development and site improvements so that these existing mature trees will act as a natural buffer to existing residential uses on Westmere Terrace.
- The berm along the western border of Site 1, which contains existing trees, will be planted with additional 12-15 foot tall double row of trees to further mitigate to the maximum extent practicable visual and noise impacts, which is in compliance with and encouraged by [§280-18.1.G.3 of the Town of Guilderland Town Code](#).
- All construction work will comply with the Town's Noise Ordinance.
- Construction hours for building construction and site work on the site near Westmere Terrace shall be between 7:00 AM and 5:00 PM, Monday through Friday and 9:00 AM to 4:00 PM on Saturday with no construction activities on Sundays or holidays (New Year's Day, Memorial Day, July 4, Labor Day, Thanksgiving and Christmas). This limitation shall not apply to construction work being performed within the interior of any buildings after building walls have been constructed, or exterior building or site work being performed, for example landscaping work, or

masonry work on the outside of buildings, etc., within acceptable dBA levels set forth in the noise ordinance.

- e. The two-story buildings proposed on the western side of Site 1 will act as a transition from the existing residential uses on Paden Circle to the 5-story apartment buildings. The five story buildings are situated in closer proximity to Rapp Road and comply with the additional setback requirements from the Westmere Terrace residential district, and is consistent with the TOD building height and setback requirements.
- f. During operation, consistent with Town Code lighting requirements, the parking lot lighting will not exceed 16 feet in height from finished grade and shall have cutoff type luminaires to prevent light above the fixture. The Applicant will install light poles that are no higher than 12-feet in the southern most area closest to Westmere Terrace. The exterior lighting will conform to [Town of Guilderland Town Code §280-28\(C\) \(2\), \(3\) and \(4\)](#).
- g. Site 1 parking lot lighting will be located and screened without intruding upon the environment or adjacent residential properties. Based on the proximity of the Site 1 to the Albany Pine Bush Preserve, sodium vapor lighting is proposed so as to reduce the attraction of such lighting on insects. The lighting will be at least 200 feet south of the established Albany Pine Bush corridor located north of Gipp Road and will conform to the 0.2 foot-candle limit set in the Town Code. The existing trees and vegetation on the 2.4 acre buffer area, just south of Gipp Road, will not be disturbed and will further serve to provide mitigation for Site 1 impacts to existing residential uses north of Gipp Road, in the City of Albany.
- h. As depicted on the Site Plan, Site 1 will be landscaped with an emphasis on native plant material to achieve a visually appealing site with appropriate site screening to mitigate to the maximum extent practicable visual and noise impacts.
- i. The Project's Stormwater Pollution Prevention Plan (SWPPP) includes watering practices to mitigate potential impacts from construction dust.
- j. The potential use of native "Pine Bush" species for screening atop the existing and proposed berms is not proposed at this time. Because the purpose of the proposed landscaping is to act as a visual screen between the project and the existing neighboring residential properties, low level "Pine Bush" vegetation species is not preferred. Maintaining the currently existing thick vegetation in the northern berm will encourage wildlife species to continue to migrate to the north and west of the site and act as a buffer to the land uses to the north. It is not the intent of the Project to attract endangered species away from the established Pine Bush Preserve area located to the north of the Site with native plantings, but such plantings may be incorporated into the Project landscaping during site plan review. The Site currently does not provide any habitat for such species and in such condition fulfills the Management Plans goals of the Albany Pine Bush Preserve to encourage migration to the north and west away from Site 1.

- k. Sites 2 and 3 are located within a primarily vacant residential neighborhood between the existing Crossgates Mall Road and US Route 20 (Western Avenue). Development along US Route 20 is highly commercial in character. In addition to Crossgates Mall, existing commercial uses in the general vicinity include gas stations, fast food restaurants, service stations, a funeral home, a church, a real estate office, an office building complex and other commercial uses, and a fire department/EMS complex.
- l. The redevelopment projects proposed at Sites 2 and 3 are permitted under the TOD District subject to issuance of a Special Use Permit by the Zoning Board of Appeals.
- m. Construction on Sites 2 and 3 will be limited to the hours specified in the Town Code. Potential dust from construction will be addressed in the SWPPP and include watering practices to avoid such potential impacts. Noise will be temporary in nature. Demolition of thirteen (13) residential structures will occur. Structures will be subject to lead and asbestos surveys and demolition will occur in accordance with the Town's building code permitting requirements.
- n. During operation, site lighting will be provided to illuminate the parking lot and building consistent with Town Code requirements.
- o. To maintain a visual continuity throughout Site 2, landscaping associated with the proposed retail use will be consistent with existing landscaping in the vicinity at Crossgates Mall. The landscaping plan will include a variety of tree and plant materials compatible with local soils and climatic conditions in a variety of sizes and colors to provide continuous foliage throughout the year. A mixture of plant species will be selected so that if a specific disease or insect impacts one type of plant, others will be in place that will not be affected.
- p. Ornamental trees, shrubs, and ground covers will be planted adjacent to the building within planting beds. Plant material will be selected on the basis of the following characteristics: hardiness, aesthetics, growth characteristics, safety, and ability to withstand sun and shade. Plant material will be planted in masses in order to create a pleasing landscape. No invasive plant species shall be used.
- q. Additional mitigation measures will be employed at Sites 1, 2 and 3:
 - Construction equipment will be properly muffled in accordance with all applicable regulations.
 - Equipment will be required to be properly maintained to reduce noise and vibration.
 - The site will be required to be maintained in an orderly manner during all construction periods. Crews will be responsible for daily maintenance/cleaning of the site.

- All packaging, demolition and construction debris will be promptly removed from the site by a private waste-hauler and disposed of in an approved construction and demolition debris landfill.
 - Demolition of the structures will be in accordance with all state and local laws, rules and regulations.
 - Dust suppression measures will be implemented as required.
 - Erosion control measures will be implemented in accordance with the approved SWPPPs.
- r. The issue of economic competition has been raised by the owner of a nearby gas station during the course of the SEQRA proceedings. The regulation of economic competition is beyond the scope of SEQRA. A new entry into the marketplace brings greater consumer choices, and instigates competitive responses from other retailers, and eliminates the need for local government officials to decide who competes in the marketplace, either directly or disguised as environmental or zoning “impacts”.
- s. The [NYSDEC “handbook” on SEQRA](#) states that it is inappropriate to consider “[t]he potential effects that a proposed project may have in drawing customers and profits away from established enterprises or in reducing property values in a community” because economic consequences and competition are not environmental factors.
- t. The record includes numerous comments that expressed support for Costco, including the local hardware store and diner across the street, that smaller retail businesses will benefit from the increase in traffic in the area that will be generated by Costco.

6. Schools, Community Facilities and Municipal Services

Water/Sewer

- a. The Town of Guilderland Department of Water & Wastewater Management provides sewer services to more than 25,000 customers in the Town of Guilderland by collecting wastewater for high-level treatment. The town's system meets or exceeds the standards set by the Department of Environmental Conservation (DEC) and the New York State Department of Health (DOH).
- b. Site 1, 2 and 3 are part of the Town of Guilderland sewer district. Based on consultations with the Town Department of Water & Wastewater Management, the Town's sewer service possesses adequate capacity to meet the current and future needs of the Town and accommodate the proposed development for Site 1, 2 and 3. Engineering details for the collection, distribution, and treatment of the Project's discharges will be coordinated in consultation with the Town of Guilderland Water/Wastewater Department and the Town Designated Engineer (Delaware Engineering).
- c. By [letter dated February 11, 2020](#), the Town Department of Water and Wastewater Management has indicated that sufficient excess water and sewer capacity exists to accommodate the proposed action, contingent on the sewer being redirected to the Nott Road Waste Water Treatment Plant. It has further been determined by Town of Guilderland Water/Wastewater Department and the Town Designated Engineer (Delaware Engineering) that the Dillenbeck Pump Station has sufficient capacity to accommodate the development of Site 2 because the projected flows are significantly less than those permitted for the existing residential neighborhood.
- d. While the existing sewer pump station has sufficient capacity to accommodate the proposed action, to further improve the sewer system, the Applicant has agreed to Town requests to assist in diverting sewer flow to the Town's [Nott Road pump station](#).
- e. An alternate to the project discharging to the Dillenbeck Pump Station would be to redirect the flows from the project area to the receiving sewers that convey sewer to the Nott Road wastewater treatment plant. It has been reported that the Nott Road WWTP has a permitted facility design flow of 3.60 MGD and is operating under capacity.
- f. Redirecting existing and future demand to the Nott Road WWTP will require new distribution infrastructure, a new pump station to be constructed at the Project, as well as improvements to the municipal sewer network from the terminus manhole, near the intersection of Johnston Road and Western Avenue to Ashford Drive. The new pump station would be located near the newly constructed hotel. Approximately 4,900 linear feet of new sewer lines would be required to be extended from the new pump station along Crossgates Mall Road to Johnston Road and connect near the intersection of Johnston Road and Ashford Drive.

- g. Under existing conditions, per conversations with the Town Water/Wastewater Department and record drawings, the eight-inch sanitary sewer main within Johnston Road experiences a bottleneck where the slope of the main is approximately 0.27% and is underperforming. The existing sanitary sewer main between Johnston Road and Ashford Drive would be required to be upgraded to a ten-inch main with adequate slope, creating more capacity within the line. The existing eight-inch main, at the bottleneck, has a capacity of approximately 0.76 cfs. Improving the municipal sanitary sewer from the terminus Johnston Road manhole to the Ashford manhole to a 10-inch main would allow for enough capacity to accommodate the increase in flow, as well as alleviate the existing bottleneck in the main. A 10-inch PVC pipe laid at a slope of approximately 0.27%, to match the existing slope, would have a capacity 1.14 cfs (737,133 GPD; 512 GPM) of flow, enough to handle the flow generated by the Project.

Police, Fire and Emergency Services

- a. By [letter dated June 9, 2020](#) Chief Anthony Carrow of the Westmere Fire District, Board of Commissioner confirmed that the Westmere Fire Department determined there will be no significant change in service level required by the Department to serve the proposed uses on Sites 1-3. They reviewed the plans and determined that the Department “has the necessary personnel, resources, equipment and facilities to support the development”.
- b. Police protection will be provided by the Town of Guilderland Police Department, the Albany County Sheriff's Department and the New York State Police. The Guilderland Police Chief, Daniel McNally issued a [letter dated June 10, 2020](#) indicating that there are adequate resources available to serve the proposed action without adverse impact on such sources.
- c. By [letter dated July 13, 2020](#), Jay Tyler, Director of EMS issued a letter on behalf of the Guilderland Emergency Medical Services confirming that the Town EMS department “determined there will be no significant change in service level required by our department to serve the proposed Rapp Road Residential/Western Avenue Mixed Use Redevelopment Projects” and that “[a]fter review of the plans, we have determined the level of service required will not impact our department and that our department has the necessary personnel, equipment and facilities to support the development.

Guilderland School District

- a. The Guilderland School District has five elementary schools, one middle school and one high school. The area in the vicinity of Site 1-3 is served by the Westmere Elementary School.
- b. Three private elementary schools are located in the Town of Guilderland: the Hebrew Academy of the Capital District, Christ the King, and St. Madeline Sophie.

- c. Based on the [Camoin Report](#) (DEIS, Appendix H), Census Data for new multifamily residential construction, and the location and design of the Project, a minimal number of school-age children are anticipated to reside in the development and no impacts to the Guilderland School District are anticipated.
- d. The [presentation](#) to the Town Board in December 2018 by the Town Planner noted that:
 - On average multi-family developments with 100 units will generate 29 students
 - On average single-family developments with 100 units will generate 74 students
 - Between 2001 and 2017, the Guilderland School District experienced a 15.1 % decline in enrollment (approximately 1 % per year) from 5,694 students in 2001 to 4,836 students in 2017.
- e. According to the New York State Department of Education statistics, enrollment at the Guilderland School District has decreased by 89 students from academic year 2013/2014 through 2017/2018. In the last academic year class sizes have ranged from 326 students in the 2nd grade to 412 students in the 12th grade. In 2001, the District enrollment was at its peak with 5,694 students. In 2017, there were 4,836 students, a decrease of 858 students (approximately 15 %) since 2001.
- f. National statistics from Rutgers and the National Association of Homebuilders estimate that multi-family housing could generate between 0.22 and 0.36 school age children per unit, which may be a higher estimate. At 222 units, multiplied by the average of the two statistics, it is estimated that Site 1 could yield 64 new school age children at a stabilized occupancy which is expected to be approximately three years from grand opening. According to data prepared by the CDRPC based on the 2000 Census, for newer residential construction in Albany County (outside of the City of Albany) apartments generated 0.03 school age children/unit. For southern Saratoga County, apartments generated 0.24 school age children/unit. These potential new student metrics are significantly less than new enrollment that might be generated by single family homes. See, presentation by Town Planner to the Town Board posted on the Town's website at https://www.townofguilderland.org/sites/guilderlandny/files/uploads/town_board_development_powerpoint_presentation_2018-12-18_-_final.pdf. According to CDRPC (2000 Census), single family homes generated 0.81 and 0.73 school age children/unit in Albany and Saratoga County, respectively.
- g. Therefore, it is not anticipated that there will be a significant adverse impact on the Guilderland School District, with the existing facilities being sufficient to accommodate the proposed action. Based on the planned single-two bedroom units, the location and target population of the development in Site 1 is for young professional and empty nesters. Therefore, it is not anticipated that there will be a significant amount of school age children added to the Town of Guilderland.

- h. The School District will receive substantial tax revenue from the Project which will more than offset the costs from any additional students. See Section 8 of this Findings Statement. Current property tax generation from all three sites totals \$175,718. While the following figures are not intended to be binding on the applicant or the Guilderland Tax Assessor, it is projected that a future assessed value for the Site at full build out would be in the range of \$ 18,799,326. Annual revenues to the School District are estimated to be \$437,778. See Section 9 of this Findings Statement for additional revenue information.

Solid Waste and Utilities

- a. The proposed action is expected to generate solid waste. The vast majority of this waste is cardboard and paper from the Costco retail store and will be recycled. Private entities currently provide recycling services.
- b. Electric, natural, gas and telephone service will be provided by expansion of existing on-site utilities. All utilities have ample existing capacity to serve the proposed action.

7. Air Quality and Noise

- a. The DEIS included an [Air Quality Analysis and Impact Report](#) by B. Laing Associates in order to assess any potential air quality impacts as a result of vehicle traffic generated by the Project. This Air Quality Report was based on the DEIS Traffic Impact Study prepared by Maser Consulting PA.
- b. As a result of input from [NYSDOT](#), the Town's consulting traffic engineer, [GPI](#), the Planning Board as Lead Agency and others, the Maser Traffic Impact Study was supplemented by additional analyses and mitigation measures described in Maser Consulting response letters included in the FEIS. These supplemental traffic analyses and additional mitigation measures are reflected in the B. Laing Associates [Supplemental Air Quality Report](#), also included in the FEIS.
- c. The B. Laing Air Quality Analysis found:

No significant air quality impacts are anticipated as a result of the buildout of the Project. Twenty-three (23) signalized and unsignalized intersections were analyzed by the traffic consultant. These analyses were utilized to determine the impacts, if any, to air quality as a result of the proposed action. As provided above, similar Levels of Service and delays will be experienced under the 2022 and 2025 No-Build and Future Build Conditions and so, again, no significant air quality impacts are anticipated.
- d. The Report models peak p.m. traffic to determine potential impact upon air quality. NYSDOT's Environmental Manual provides that up to three intersections should be modeled for air quality if they exceed traffic Level of Service C and exceed certain volume threshold or emissions criteria. In this case, two signalized intersections exceeded level of service C in the no build and build conditions. These signalized intersections were Western Avenue at Rapp and Johnston Roads, and Washington Avenue Extension at Springsteen Road. The traffic modeling includes all three project sites by 2025 and a general increase in traffic growth accounting for cumulative and regional effects. Carbon monoxide modeling included the number of vehicles anticipated to park at the proposed Costco. These "parked" vehicles are incorporated into the model as queueing, accelerating and decelerating and analyzed with engine starts. Thus, cars queueing at gas pumps and cars waiting to enter Western Avenue have been incorporated into the quantitative analysis. The intersection analysis determined that the proposed project will meet the carbon monoxide standard as provided in the New York State Ambient Air Quality Standards. (SAAQS).
- e. As a significant mitigation measure with respect to air quality, a roundabout will be constructed and the eastern ramps to Crossgates Mall Road, from Fuller Road Alternate, as part of the proposed action. The level of service at this intersection remains at C when this mitigating measure is applied and so, reduces it to a NYSDOT's Environmental Manual level 1 screening analysis. Roundabouts reduce vehicle emissions vs signalized intersections/stop signs and are a preferred method to address

and mitigate vehicle emissions because roundabouts improve the efficiency of traffic flow, and also reduce vehicle emissions and fuel consumption. Installing roundabouts in place of traffic signals or stop signs has been found to reduce carbon monoxide emissions by 15-45 percent, nitrous oxide emissions by 21-44 percent, carbon dioxide emissions by 23-34 percent and hydrocarbon emissions by 0-40 percent (Hu et al., 2014; Várhelyi, 2002). Constructing roundabouts in place of traffic signals or stop signs also reduced fuel consumption by an estimated 23-34 percent (Hu et al., 2014; Várhelyi, 2002; Höglund & Niittymäki, 1999).

- f. With respect to the potential air quality impact of traffic generated from the projects proposed on Sites 1-3 on the Karner Blue Butterfly migration corridor located north of Site 1, the Project's traffic mitigation measures include modifications to the upper Rapp Road corridor designed to reduce existing traffic volumes in the Rapp Road Historic District and, as a result, minimize any impact to the Karner Blue Butterfly migration corridor and other Pine Bush Preserve areas located north of the Project.
- g. A [Sound Level Measurements and Impact Review Report](#) was prepared by B. Laing Associates to evaluate sound levels that may occur as a result of the Project. The report examined the data at four monitoring locations to establish an existing base line for sound in the area. Existing vehicular traffic was identified as the primary source of sound. The report examines the results of Maser Engineering Traffic Impact Study and the anticipated additional traffic that will result from the Project and its potential impact on noise. In addition, the mitigative measures employed for Site 1, including the 20 foot high berm and 6 foot high fencing at the north end of Westmere Terrace will mitigate noise impacts to the maximum extent practicable. The report concluded: "The analysis revealed that no significant noise impact will occur as a result of the proposed action."
- h. Industry standard construction noise mitigation measures will be employed, which include:
 - The contractor will be required to prepare a noise control plan to identify the potential for noise impacts according to the specific construction equipment and usage that is expected.
 - Stationary construction equipment will be located as far as possible from noise-sensitive sites (i.e. residences).
 - Mitigation for diesel engine noise will include use of shields, shrouds, or intake and exhaust mufflers.
 - Equipment required to have back-up alarms for safety purposes may utilize an ambient-adjusted alarm tone, or "quackers," which have a less tonal character. Flagging may also be used to eliminate the need for back-up alarms.

- Temporary noise barriers or noise blankets can be installed between construction equipment and sensitive receptors to provide significant noise reduction (typically five to 15 dBA).
- All construction equipment used on-site during construction would be inspected periodically to ensure that properly functioning muffler systems are used on all equipment in accordance with the [NYSDEC Best Management Practice \(BMP\) for reducing noise](#).
- Equipment may not idle on-site, except as permitted by the Town Code.

8. Municipal Revenues and Finances

- a. The proximity of the proposed action to the interstate highway system and existing municipal services indicates the proposed action is suitably located in relation to transportation, water and sewerage requirements.
- b. The proximity of the proposed action to the interstate highway system, the existing demand in the market area for upscale shopping opportunities, and the possible use of the Costco facilities for community-based and charitable events, and overall positive impact on the municipal tax base and the private sector economy indicate the proposed action is reasonably necessary and convenient to the public health, welfare, economic or social benefit of the community.
- c. To the limited extent that the proposed action could be viewed as encouraging additional commercial and/or residential development, such growth is contemplated by the Town's Comprehensive Plan, Westmere Corridor Study and would be expected to positively impact the local economy. Any such additional development would be required to be consistent with the Town Code and would be subject to full review under SEQRA by local and state agencies.
- d. The proposed action will have a substantial positive impact on municipal revenues and finances within the Town of Guilderland and surrounding municipalities. Currently, Sites 1, 2 and 3 are vacant land within the Town. Based on current tax rates, these properties generate the following in taxes to the Town and School District combined:

	Assessed Value	Town	School District
Site 1 (Four Parcels)	\$ 1,299,800	\$ 2,285	\$22,945
Site 2 (Twenty-five Parcels)	\$5,087,531	\$16,645	\$89,809
Site 3 (Thirteen Parcels)	\$ 3,566,769	\$ 13,441	\$62,963
Total	\$ 9,954,100	\$ 32,372	\$175,718

These values do not include existing revenues to Albany County of \$28,259.

- e. The proposed action is expected to generate additional property tax revenues for the Town of Guilderland, and other governmental entities, which has been demonstrated to exceed the cost of any additional municipal services required. Estimates indicate the following potential additional revenue benefits:

Site 1 - Rapp Road Apartment/Townhome Project

Guilderland School District	\$331,861 annually
Town of Guilderland	\$61,506 annually
County of Albany	\$50,633 annually

Site 2 - Costco

Guilderland School District	\$105,917 annually
Town of Guilderland	\$19,630 annually
County of Albany	\$16,160 annually

- f. In addition, the proposed action will generate construction and operational jobs, as follows:

Rapp Road (Site 1)

489 Construction Jobs
Estimated Payroll \$19,488,410

76 Operational Jobs
Estimated Payroll \$3,010,294

Costco (Site 2)

181 Construction Jobs
Estimated Payroll \$13,171,980

300 Operational Jobs (full and part time)
Average salary of \$58,000 per year for full time
Average Rate of \$23.00 per hour for part time

- g. Sales taxes were calculated according to the NYS Comptroller's Office Division of Local Government Accountability methodology. Albany County keeps 60% of sales tax revenue and distributes 40% of sales tax revenues to the cities and towns on the basis of population. The "Amount Kept by County" and the "Amount Distributed to Town" are calculated to reflect this. Based on population, approximately 12% of the 40% that is distributed to the cities and towns will be distributed to the Town of Guilderland. This methodology is used throughout the entire report in all sales tax calculations. Sales taxes are estimated to significantly contribute to the local government and the economy, as follows:

Site 1 - Rapp Road Apartment/Townhome Project

Town of Guilderland	\$4,420 annually
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County of Albany \$55,255 annually

Site 2 - Costco

Town of Guilderland \$157,516 annually
County of Albany \$1,845,892 annually

Site 3

Town of Guilderland \$9,592 annually
County of Albany \$119,905 annually

- h. The Town will also receive additional fees from Building Permit application fees; Open Space, Parks and Parkland fees (\$500.00 per unit) and Sewer mitigation fees.
- i. The proposed action will result is a significant increase in revenues to the Town, Albany County and School District.

9. Alternatives

- a. The SEQR regulations provide that the alternatives to be evaluated in a DEIS should include “the reasonable alternatives to the action that are feasible, considering the objectives and capabilities of the project sponsor” and such alternatives “for which no discretionary approvals are needed may be required”. The SEQRA regulations also provide that “site alternatives may be limited to parcels owned by, or under option to, a private project sponsor”.
- b. Alternative sites for the Project involving Crossgates Mall property or facilities have been considered but determined to be not feasible. Crossgates Mall and lands are under different ownership from the applicant, including ownership by a department store, are subject to separate tenant approval development rights, and separate financing requirements which limit the applicant’s ability to locate the Project on these properties.
- c. The applicant notes that land and associated development costs for the Project Sites are extremely high and require a use which generates significant revenue in order to make a reasonable return on the project sponsor’s investment.
- d. Site 1 is located west of Rapp Road and, pursuant to the TOD, no alternative residential or commercial land uses are permitted west of Rapp Road. An alternative land use of restoring lands on Site 1 to pitch pine and scrub oak barrens was examined by the Applicant and Albany Pine Bush Preserve. In a [letter dated March 10, 2020](#) prepared by the Albany Pine Bush Preserve Commission, it states:

“We do not disagree with the conclusions regarding potential impacts to listed wildlife species, and the fact that the site is highly degraded and dominated by invasive plant species. However, the soils analysis indicates the site supports APB soils and could be restorable to pitch pine-scrub oak barrens (PPSOB). As such, the applicant’s proposed mitigation to offset the loss of this restorable acreage on Site 1 is appreciated and consistent with the site’s Partial Protection recommendation. Proposed mitigation includes:

- *protecting approximately 8.4 acres within Full Protection Areas 62 and 79;*
- *providing new/updated indoor and outdoor education/outreach space highlighting Kbb and PPSOB conservation, the APBP, and the applicant’s role in balancing conservation and economic development in the APB;*
- *modifying Rapp Road to improve ecosystem function within the Kbb corridor area; and*
- *maintaining a 200-foot permanent buffer near Gipp Road in Partial Protection Area 57.*

Therefore, alternate land uses were feasibly examined and after consultation with the Albany Pine Bush Preserve Commission an acceptable mitigation was agreed upon to offset the loss of this restorable acreage.

- e. Regarding Site 1, the existing site configuration, including building-floor plan, parking layout and ring road must, however, be considered as it is within the goals, objectives and capabilities of the Project sponsor. Additionally, the existence of Pine Bush Preserve lands to the north are key factors in considering alternative site layouts. The development restriction on the parcels of land west of Rapp Road is also a factor in determining site configurations.
- f. The record also includes a detailed evaluation of the most feasible alternative use of Site 2 developing a standalone office building. The acreage available to support an office use is approximately 15± acres. According to the TOD, the maximum allowable lot coverage of structures and parking areas is 75 percent. Additionally, per the TOD, three parking spaces per 1000 square feet of gross floor area is required, or a total of 1,086 spaces 362,500 SF of building coverage (2.5 acres) x 4 floors/one building = 362,500 SF (Footprint assumes 108,750 SF – 20% additional for common areas).
- g. In a [letter dated March 10, 2020](#) the Albany Pine Bush Preserve Commission stated:

“The proposed and conceptual development described for Sites 2 and 3, respectively, are not within areas recommended for protection in the 2017 Management Plan Update. Consequently, their development is unlikely to result in potentially significant adverse impacts on APBPC’s ability to create and manage a viable preserve. Native plant landscaping, LED exterior lights, and eliminating non-native invasive plants on Sites 2 and 3 would be consistent with APBPC comments for other non-protection areas in the APB Study Area.”

The Applicant did not consider restoring Site 2 to native Pine Bush lands/habitat based on these comments from the Pine Bush Preserve Commission.

- h. The local service demands as they relate to roads, parks and other municipal services would be similar to that required by the retail facilities. However, an office development would be expected to generate more peak hour traffic. This type of facility would not generate sales tax, and therefore net tax revenues to the community will be substantially lower than the proposed retail use.
- i. The record demonstrates that current vacancy rates within the Albany Central Business District for Class A, Class B and Class C office space are currently within an unacceptable range for the applicant to undertake the financial risk of an office development of this size.
- j. With respect to Site 2, and assuming that a retail facility of a reasonable and appropriate use of the site, the record also includes an analysis exploring the development of larger as well as smaller facilities. A retail facility of a smaller scale than that proposed, while in theory possible, is not economically feasible and does not meet the goals or objectives of the project sponsor. Land costs and development costs preclude this option. Commitments to the potential tenant requires specific floor areas which do not

allow the size of the facility to be reduced. The Applicant advises that the high development costs, and existing site constraints make a smaller retail facility infeasible.

- k. Retail, office and residential redevelopment proposed for Site 3 is consistent with the TOD and may be developed at some point in the future. No other land uses are within the capabilities of the project sponsor. The maximum square footage that may be developed was evaluated in the DEIS. Increasing the scale would likely require one or more variances from the Zoning Board of Appeals and depending upon the required number of parking spaces that would be required to support the use and the provision of sufficient greenspace.
- l. Alternate site layouts may be considered in the future for Site 3 that may include individual uses or buildings on the site rather than all uses enclosed in a single structure. The configuration of the site, size of the project and number of parking spaces is hypothetical at this time may change if and when Site 3 is proposed for development.
- m. In a [letter dated March 10, 2020](#) the Albany Pine Bush Preserve Commission stated:

“The proposed and conceptual development described for Sites 2 and 3, respectively, are not within areas recommended for protection in the 2017 Management Plan Update. Consequently, their development is unlikely to result in potentially significant adverse impacts on APBPC’s ability to create and manage a viable preserve. Native plant landscaping, LED exterior lights, and eliminating non-native invasive plants on Sites 2 and 3 would be consistent with APBPC comments for other non-protection areas in the APB Study Area.”
- n. The Applicant did not consider restoring Site 3 to native Pine Bush lands/habitat based on these comments from the Pine Bush Preserve Commission
- o. Should the Project sites remain as underdeveloped lands they would generate limited revenues to the Town, School District, and County and not provide the significant beneficial impacts to the local municipal economy and employment rolls. The potential environmental and public benefits of the conveyance of 8.4 acres of land for the expansion of the Karner Blue Hill Preserve and corridor area to the north and the implementation of a traffic calming alternative in the Rapp Road Historic District would also not be realized.

10. Water Resources

B. Laing Associates investigated each Site for the presence of wetlands.

Wetlands – Site 1

- a. Site 1 was operated for decades as a pig farm and partially filled. The site is dominated by a closed canopy, secondary successional woodland. The disturbed, ecological condition is the result of the prior operations of the pig farm and fill placement which substantially altered the original soils and topography on the subject property. No wetlands or hydric soil conditions were found on the Site. The dominant characteristics of the uplands are disturbed, fill soils and secondary succession vegetation. [DEIS Appendix F](#).

Wetlands – Site 2

- a. The [Wetland Delineation Report for Site 2](#) identifies a small, [man-made channelized ditch/wetland](#) (0.93 acres) that was constructed for the old Rapp Road, and meets the criteria to be classified as a wetland which has been confirmed by the US Army Corps of Engineers. Impacting federal wetlands under 0.1 acre are typically approved ministerially through an ACOE Nationwide Permit 39.
- b. As provided in the DEIS, “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.” The wetland report explains how the non-wetland status of the “tributaries” were determined. The Report found, “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.”
- c. The wetland will be filled and channelized and discharge to the existing stormwater facilities along Crossgates Mall Road.
- d. There are no sole source aquifers in the vicinity of the proposed action.

An analysis of the anticipated cumulative impacts and water demand for each of the three project sites is provided within the [DEIS](#). The Town of Guilderland water supply system consists of four elements.

1. The primary source is the Watervliet Reservoir, permitted to withdraw 5 mgd, but averages 3 to 3.5 mgd during the summer months.

2. The second source is an interconnect with the City of Albany, in the summer months it averages 2 mgd.
3. The third source is an interconnect with the Town of Rotterdam and is currently producing on an average 1 mgd.
4. The fourth source are two town owned wells which are capable producing 1 mgd combined. These wells are still usable, but were removed from full service and placed in an emergency back up role due to elevated levels of iron. The Town of Guilderland Department of Water and Wastewater provided a will serve letter, dated February 11, 2020. See [Appendix 16](#) and DEIS Section 3.8.

Numerous safety precautions will be included with the development of the proposed gas station at Site2, including: The Costco fuel facility will be equipped with the most current technology and environmental monitoring systems, meeting or exceeding federal and state regulatory requirements. The facility will include:

1. Double-Walled Fiberglass Fuel Storage Tanks, surrounded by gravel fill, and capped with an 8" thick reinforced concrete slab. Piping is double-contained flexible or fiberglass.
2. Containment sumps to capture any fluid from dispenser and incorporating fluid detection sensors.
3. Tank Monitor/Leak Detection System: Veeder-Root TLS450 tank level monitor and leak detection system providing automatic system shut down technology, located in the interstitial tank space and in each dispenser and piping sump.
4. Emergency Shut-Off Switch/Alarm, provided at several locations around the station, which immediately shut off power to the pumps.

Stormwater Management

- a. The proposed action is not located in a floodplain.
- b. The stormwater management plans have been designed to mitigate the adverse effects of stormwater runoff, specifically sedimentation and site controlled release of stormwater are methods which have been implemented to achieve this result.
- c. The Planning Board and its independent Town Consultant, Delaware Engineering, have reviewed the comprehensive Stormwater Management/Erosion Control/Pollution Prevention Plans for Costco and the Rapp Road Apartment/Townhome Projects designed to address the on-site and off-site impacts related to construction phase and operational phase drainage of stormwater from the respective Sites.

Site 1 – Apartment/Townhomes

- a. The project will disturb greater than one acre of land and is therefore subject to the requirements set forth in the NYSDEC Stormwater Management Design Manual (SWMDM) and the NYSDEC SPDES General Permit from Construction Activity (GP-0-20-001). A [Stormwater Pollution Prevention Plan](#) was prepared which also contains the Erosion and Sediment Control Plan to be implemented during construction, and a long-term Operation & Maintenance Plan to be followed after construction is complete.
- b. As part of these requirements, stormwater from the site is required to capture and treat a specific amount of water based on the qualifications of new development versus redevelopment. The project proposes infiltration practices for stormwater management. Infiltration practices standard stormwater management practice with the NYSDEC and all practices will be designed to requirements set forth in the NYSDEC SWMDM. By following such requirements, stormwater will meet or exceed the water quantity and quality requirements set forth in the NYSDEC SWMDM.
- c. Infiltration practices will reduce the amount of stormwater entering the Town of Guilderland municipal storm sewer system by promoting groundwater recharge over off-site discharge.

Site 2 - Costco

- a. A [Stormwater Pollution Prevention Plan](#) was prepared by Maser Consulting (See DEIS) for Site 2 which also contains the Erosion and Sediment Control Plan to be implemented during construction, and a long-term Operation & Maintenance Plan to be followed after construction is complete.
- b. The report indicates that the peak flow analysis demonstrates that the proposed development will result in a reduction in flow rates entering the tributary to Krum Kill. Additionally, the proposed development will not have any adverse impacts on the storm sewer system in Crossgates Mall Road nor the adjacent properties to the east of the subject property.
- c. A phased construction sequence has been developed for the project which incorporates stabilized construction accesses, compost filter sock, inlet protection, and temporary/permanent stabilization techniques to minimize erosion and sedimentation.
- d. The storm water pollution prevention plan provides reductions in peak flows for the required storms, and runoff reduction/water quality mitigation meeting the applicable standards, there should be no adverse impacts due to storm water, on-site or off-site, as a result of the proposed development.
- e. Implementation of the Erosion Control Plans will adequately protect against and control soil erosion during construction of the proposed action to the greatest extent possible.

11 Miscellaneous – Climate Change/Tree Cutting

Climate Change

- a. The contribution of a project of this scale to climate change is insignificant in the context of global climate change. The project is consistent with land use practices that minimize greenhouse gas emissions.
- b. In general, mixed use development with access to transit and existing roadways is consistent with sustainable land use planning to reduce carbon footprints. For example, the [New York City Environmental Quality Review Technical Manual](#) assesses consistency with greenhouse gas reduction goals by consideration of the following factors:

1. *Pursuit of transit-oriented development.*

Working in conjunction with CDTA, a new bus stop is in the planning process. In addition, as set forth in the DEIS, CDTA has commenced a new ride service called [Bus Plus](#), that includes Crossgates and the area surrounding it including Sites 1, 2 and 3 where residents within the area will be able to utilize public transit services.

2. *Construct new resource and energy efficient buildings (including the use of sustainable construction materials and practices) and improve the efficiency of existing buildings.*

As discussed in the DEIS the project will incorporate energy efficient and environmentally sensitive construction materials and mechanical systems. All aspects of construction will comply with the NYS Uniform Fire and Building Code, the New York State Energy Conservation Construction Code.

Measures which will be included in the Project plans at Site 2 include: extensive use of insulation materials; strictly controlled use of exterior glass; installation of a computer controlled Energy Management System which will control peak load usage; HVAC equipment equipped with economizer equipment which senses the most economical introduction of fresh air; time clock and photo cell controlled lighting circuits which reduce unnecessary energy consumption; and water conservation fixtures which reduce water usage and sewer discharges.

Vegetated areas adjacent to the building will consist of deciduous and evergreen trees. The addition of the trees will help to provide passive cooling of the building in summer and act as windbreaks during the winter.

3. *Encouraging sustainable transportation through improving public transit, improving the efficiency of private vehicles, and decreasing the carbon intensity of fuels.*

As noted above, the project will encourage sustainable public transportation by improving public transit. Roundabouts reduce vehicle emissions vs signalized intersections/stop signs and are a preferred method to address and mitigate vehicle emissions because roundabouts improve the efficiency of traffic flow, they also reduce vehicle emissions and fuel consumption.

It has been reported that installing roundabouts in place of traffic signals or stop signs has been found to reduce carbon monoxide emissions by 15-45 percent, nitrous oxide emissions by 21-44 percent, carbon dioxide emissions by 23-34 percent and hydrocarbon emissions by 0-40 percent. Constructing roundabouts in place of traffic signals or stop signs reduced fuel consumption by an estimated 23-34 percent.

In addition, the House Select Committee on the Climate Crisis prepared a document titled ["Solving the Climate Crisis: The Congressional Action Plan for a Clean Energy Economy and a Healthy, Resilient and Just America"](#) which was released in June 2020. The document contains information that support the proposed transportation mitigation measures as part of the proposed action that will improve transportation, reduce congestion and thereby benefit air quality in the area. As noted in the FEIS, the proposed action incorporates numerous recommended "Building Blocks".

It is also noted that the residential component of the project is unlikely to attract new residents to the region. Rather, it is likely to provide housing for people who prefer to live in a location that has access to public transit and that may be closer to their places of employment as well as be within close walking distance to the regional attraction that is the Crossgates Mall. The [US EPA](#) notes that "the most effective way to reduce energy consumption is to locate homes of all types in areas where households could replace some automobile use with transit use, leading to reductions of 39 to 50 percent in household energy use." The project is wholly consistent with this recommendation.

Similarly, with respect to the Costco, patrons presently travel approximately 87 miles to Springfield, MA, the location of the nearest Costco. The project may result in a net reduction of vehicle miles travelled (VMT) and therefore a net reduction in greenhouse gas emissions.

Lastly, the project will result in the permanent preservation of 8.4 acres of land designated as "Full Protection" by the Albany Pine Bush Preserve Commission, allowing this land to permanently sequester carbon. The

percent greenspace after construction will be 72% and preserve the 200' wide, 2.5+/- acre buffer to the north and a 4+/- acre western buffer which acts as a significant buffer for the surrounding residential developments.

Tree cutting

- a. In March 2020, representatives of the applicant advised the Town of its plans to follow NYS Department of Environmental Conservation's guidelines for tree removal activities between November 1 and March 31 to avoid any potential impacts on wildlife and endangered or threatened bat species.
- b. On March 24, 2020, the applicant provided to the Town an environmental report prepared by B. Laing Associates that examined the types of trees and vegetation on Site 2, and the potential impacts of such proposed tree cutting activities. The Report concluded:

In summary, the proposed tree clearing of Site 2 would not have a significant impact on northern long-eared bat. Even though no confirmed summer occurrences of northern long-eared bats have been observed in the Town of Guilderland, if all tree clearing is done between November 1 and April 1, the owner's actions will be consistent with state and federal guidance and such tree clearing (and leaving the stumps) before April 1, 2020 is specifically authorized and no significant environmental impacts are to be expected. Therefore, we recommend, in an abundance of caution, that tree clearing activities on Site 2 occur between November 1 and April 1. See, [FEIS, Appendix 21](#) for B. Laing Associates Report.

- c. The Town Code does not require a permit for such tree cutting activity. The Town Planner confirmed this with the Town's Stormwater Management Officer.
- d. A [comment letter](#) from the Albany Pine Bush Preserve Commission on the DEIS regarding Site 2 stated:

The proposed and conceptual development described for Sites 2 and 3, respectively, are not within areas recommended for protection in the 2017 Management Plan Update. Consequently, **their development is unlikely to result in potentially significant adverse impacts on APBPC's ability to create and manage a viable preserve.** (emphasis added).

- e. A [notice](#) of such activities was posted on the Town's website summarizing the contents of the report and advising the public that tree cutting activities would commence on March 26, 2020. The notice provided details concerning the tree-cutting activities that would take place, the types of trees that would be cut, including the numerous invasive trees and that there would be no physical disturbance to the site because the tree stumps would remain on site.

- f. The Town Planner also consulted with NYSDEC regarding this issue and was advised by Nancy Baker, Region 4 Permit Coordinator that pursuant [to 6 NYCRR 617.3\(c\)\(2\)](#), the application was deemed complete considering the Planning Board had previously accepted the DEIS as complete. Ms. Baker also commented that if the trees are cut with stumps left in place and felled trees left in place that this was an allowed activity as DEC does not consider this type of activity physical disturbance of land. The Town Planner also consulted with Mary Barrie, Environmental Program Specialist, who provided similar guidance on tree cutting as Ms. Baker.
- g. NYSDEC also advised in an email that the tree cutting activity was outside of the 5-mile protected radius of bat habitat, and therefore was not prohibited.
- h. On March 26, 2020, some trees were cut down and left on Site 2 without physically disturbing the soil and consistent with the NYSDEC's guidance.
- i. In any event, because the Town has no permitting authority over the tree cutting activity, there was not physical disturbance of the site, and this activity is regulated by the NYSDEC, neither the Town, nor the Planning Board (Lead Agency) authorized the tree cutting activity. Based on all of the documentation and information, there was no potentially significant environmental impact from such activities.
- j. The tree cutting activity on Site 2 has not affected the Planning Board's ability to assess site design or layout alternatives on that site. The site design alternatives available to the applicant on Site 2 are limited to those reasonable alternatives that take into consideration the objectives of the project sponsor and include those for which no discretionary approvals may be required. Site design alternatives, including building and parking layout, access roads, landscaping, etc., are not affected by the tree cutting. See DEIS Section 5.0 and [Section 2.9 of the FEIS](#) for an evaluation of reasonable alternatives for Site 2.
- k. The tree cutting activity on Site 2 was the subject of federal court litigation brought by nearby property owners against the Town and the applicant. [Hart v. Town of Guilderland, et al.](#), U.S. Dist. Ct., NDNY, 1:20-CV-475. The plaintiffs sought to enjoin further tree cutting on the site, halt the Planning Board's SEQRA review process of the projects, and require the replacement of the Planning Board as the SEQRA Lead Agency.

On June 1, 2020, the federal court denied the plaintiffs' request for a preliminary injunction and allowed the SEQRA proceeding to continue with the Planning Board as SEQRA Lead Agency.

On July 28, 2020, the federal court denied the motion by Save the Pine Bush to file a legal brief in support of the plaintiffs' claims with respect to the tree cutting.

On August 5, 2020, the federal court issued a decision and order denying all of the plaintiffs' claims and dismissing the case in its entirety.

III. SEQRA Findings Statement Conditions

a. Traffic

Based upon comments from the public, NYS Department of Transportation, interested and involved agencies, town officials and consulting engineers, the Applicant has agreed to facilitate all of the traffic improvements summarized below. The items will be completed prior to Costco opening for business to customers, unless otherwise noted

Roundabout at Crossgates Mall Road and Fuller Road Alternate (I-87/I-90 Ramps)

A roundabout will be constructed on Crossgates Mall Road and the Fuller Road Alternate ramps to/from I-87/I-90 intersection.

A roundabout is a circular intersection where drivers travel counterclockwise around a center island. The circular shape is designed to control the direction of traffic and reduce speeds to 15 to 20 mph. There are no traffic signals or stop signs in a roundabout. Drivers yield at entry to traffic in the roundabout, then enter the intersection and exit at their desired location. Studies by the Federal Highway Administration have found that roundabouts can increase traffic capacity by 30 percent to 50 percent compared to traditional intersections.

The roundabout will be designed to accommodate vehicles of all sizes, including emergency vehicles, buses, and truck and trailer combinations. The circular shape is designed to control the direction of traffic and reduce speeds to 15 to 20 mph. It also reduces the likelihood of t-bone or head-on collisions. A main feature of the roundabout is the raised central island. The central island of the roundabout will include a truck apron, a raised section of concrete that acts as an extra lane for large vehicles so the back wheels of an oversize vehicle can ride up on the truck apron to easily complete the turn. The raised portion of concrete also discourages use by smaller vehicles. In addition to the central island, the roundabout will feature triangular splitter islands designed to slow and direct traffic.

The roundabout has been part of the Capital District Transit Authority (CDTA) Bus Rapid Transit (purple line) for several years and has been previously examined by CDTA from a SEQRA perspective. The roundabout will be constructed and operational prior to the opening of Costco to customers on Site 2.

Roundabouts are a preferred method to address and mitigate vehicle emissions. Installing roundabouts in place of traffic signals or stop signs has been found to reduce carbon monoxide emissions by 15-45 percent, nitrous oxide emissions by 21-44 percent, carbon dioxide emissions by 23-34 percent and hydrocarbon emissions by 0-40 percent.

Gabriel Terrace intersection with Crossgates Mall Road

The primary access for Sites 2 (Costco) and Site 3 will be at Gabriel Terrace and Crossgates Mall Road. The Gabriel Terrace intersection will be located east of the mall driveway on the west side of Dick's Sporting Goods, resulting in two "T" intersections. As part of a Complete Streets design, a center turn-lane will be provided on Crossgates Mall Road. In the future, the primary access to Site 3 will also be from Crossgates Mall Road via the Gabriel Terrace Road and Hotel Connector Road.

Gabriel Terrace Intersection with Western Avenue

Access to and from Gabriel Terrace at Western Avenue will be restricted to right turn in / right turn out movements only.

Costco Driveway Entrances from Crossgates Mall Road

The northernmost driveway (main) access to Costco from Crossgates Mall Road (between Western Avenue and Rapp Road) will be restricted to a right turn in /right turn out movements only. Similarly, the southernmost driveway access to the fueling area will be restricted to a right turn in only. Both driveways will be designed to prohibit left turns.

Crossgates Mall Road

A Complete Streets design will be incorporated on Crossgates Mall Road, from the hotel driveway to the vicinity of Rapp Road, and will be reconfigured from four lanes to three lanes and a center turn lane will be added.

Crossgates Mall Road and Rapp Road

As a means to increase pedestrian and vehicle safety and incorporate a Complete Streets design on Crossgates Mall Road, the channelized right turns from Rapp Road to Crossgates Mall Road (southbound) and Crossgates Mall Road (eastbound) will be eliminated to create a four-way intersection. These right turns will now be made at lower speeds under signal control to improve safety as per the recommendations of a regional intersection safety study conducted by VHB on behalf of the Capital District Transportation Committee.

Western Avenue and Johnston Road / Crossgates Mall Road

At the intersections identified below, the Applicant has recommended signal timing adjustments to maintain similar operating conditions. Modems will be provided as per NYSDOT specs as a means to adjust signal timings as needed.

1. Western Avenue and Crossgates Mall Driveway
2. Western Avenue and Johnston Road/Rapp Road

In connection with the development of Site 3, for the 2025 Design Year, the Applicant will construct a westbound right turn lane on Western Avenue at Johnston Road/ Rapp Road (Crossgates Mall Road)

Western Avenue Driveway Closures

As requested by the NYS Department of Transportation, approximately seven (7) existing Western Avenue driveways for properties owned by the applicant within Site 2 and Site 3 will be eliminated in coordination with the development of Site 2. Driveway consolidation is a method supported by DOT for improving vehicle safety.

Rapp Road

The Planning Board, as Lead Agency, has considered multiple alternatives designed to alleviate traffic in the Rapp Road Historic District located north of Site 1, at the north end of Rapp Road. Findings related to these Alternatives are found at Section 2 of this Findings Statement, Historic, Cultural and Archeological Resources.

b. Community Character

1. To the south of Site 1 is the Westmere Terrace neighborhood and to the west is a National Grid right of way and the Paden Circle neighborhood. During the early stages of the site plan review process for Site 1, the Project Sponsor engaged the residents in the nearby neighborhoods in a dialogue to address site plan concerns. This resulted in development of [site enhancements](#) encouraged by and in compliance with [§280.18-1.G.3](#) of the Town of Guilderland Town Code, that includes extensive landscaping, additional berms, and fencing to provide a visual screen and mitigate any noise impacts for these neighbors including:
 - A new cul-de-sac will be constructed on tax map parcel number 52.09-4-43.2 (28 Westmere Terrace), which is owned by the applicant. The relocated cul-de-sac, berm and plantings will be constructed prior to construction taking place on the Site 1.
 - A 20-foot high berm along the southern boundary of the Project site is proposed.
 - A double row of 12-15 foot high pine trees along the southern boundary of Site 1 across the top of the berm referenced above.
 - A double row of 8-10-feet tall pine trees will be planted along the northern boundary of tax map parcel number 52.09-4-43.1 (24-26 Westmere Terrace).
 - A 6-foot high solid panel vinyl fence will be constructed in the following locations:

- (A) along the top of the 20-foot berm at the southern boundary of Site 1; the fence will run from the northwest boundary of tax map parcel number 52.09-4-43.2 (28 Westmere Terrace) to the northeast boundary of parcel number 52.10-1-6 (31 Westmere Terrace).
 - (B) along the western boundary of tax map parcel number 52.09-4-43.2 (28 Westmere Terrace).
 - (C) along the northern boundary of tax map parcel number 52.09-4-43.1 (24-26 Westmere Terrace).
 - (D) along the northern boundary of tax map parcel number 52.10-1-6 (31 Westmere Terrace).
- The existing wood fence along the western boundary of tax map parcel number 52.10-1-25 will be replaced with a 6-feet high solid vinyl fence.
 - The Applicant will install light poles that are no higher than 12-feet in the southern most area closest to Westmere Terrace. The exterior lighting will conform to Town Code [§280-28\(C\) \(2\), \(3\) and \(4\)](#).
 - The Applicant will avoid removal of on-site mature trees near the southern property boundary unless necessary for building development and site improvements so that these existing mature trees will act as a natural buffer.
 - The berm along the western border of Site 1 will be planted with 12-15 foot tall double row of trees.
 - All construction work will comply with the Town's Noise Ordinance.
 - Construction hours for building construction and site work on the site near Westmere Terrace shall be between 7:00 AM and 5:00 PM, Monday through Friday and 9:00 AM to 4:00 PM on Saturday with no construction activities on Sundays or holidays (New Years Day, Memorial Day, July 4, Labor Day, Thanksgiving and Christmas). This limitation shall not apply to construction work being performed within the interior of any buildings after building walls have been constructed, or exterior building or site work being performed, for example landscaping work, or masonry work on the outside of buildings, etc., within acceptable dBA levels set forth in the noise ordinance.
2. During operation, consistent with Town requirements, the parking lot lighting will not exceed 16 feet in height from finished grade and shall have cutoff type luminaires to prevent light above the fixture. The Applicant will install light poles that are no higher than 12-feet in the southern most area closest to Westmere Terrace. The exterior lighting will conform to Town Code [§280-28\(C\) \(2\), \(3\) and \(4\)](#).

3. Site 1 parking lot lighting will be located and screened without intruding upon the environment or neighboring properties. Based on the proximity of the Site, sodium vapor lighting is proposed so as to reduce the attraction of such lighting on insects. The lighting will be at least 200 feet south of the established Albany Pine Bush corridor located north of Gipp Road and will conform to the 0.2 foot-candle limit set in the Town Code. The nature trees and vegetation on this 2.4 acre buffer area will not be disturbed and will further serve to provide mitigation for Site 1 impacts.

c. Stormwater/Construction

Additional mitigation measures will be employed at Sites 1, 2 and 3:

- Construction equipment will be properly muffled in accordance with all applicable regulations.
- Equipment will be required to be properly maintained to reduce noise and vibration.
- The site will be required to be maintained in an orderly manner during all construction periods. Crews will be responsible for daily policing/cleaning of the site.
- All packaging, demolition and construction debris will be promptly removed from the site by a private waste-hauler and disposed of in an approved construction and demolition debris landfill.
- Demolition of the structures will be in accordance with all state and local laws, rules and regulations.
- Dust suppression measures will be implemented as required.
- Erosion control measures will be implemented in accordance with the approved SWPPPs.

d. Rapp Road Alternatives

As a result of the analysis of the numerous potential traffic alternatives, as described in the FEIS, several alternatives were determined by the Planning Board to be feasible, reasonable alternatives that address the existing commuter and development related traffic concerns by limiting traffic between the Town of Guilderland and the City of Albany. Of the following five alternatives, Alternative 9 is the only one located entirely within the Town of Guilderland and will be implemented in the absence of an agreement with the City of Albany to implement one of the other Alternatives partially located within the City.

Alternative 9 - terminates any direct connection via Rapp Road between the Projects and the Rapp Road Historic District. A connection between Rapp Road and the shopping center ring road would insure that City residents on Pine Lane and Wilan Lane would have access to Washington Avenue Extension east-bound

by way of the Crossgates Mall Ring Road, but traffic from the Site 1 apartments, the Site 2 Costco development and Site 3 would be effectively discouraged from travelling through the Rapp Road Historic District by the inconvenient route required, and the availability of more efficient travel routes.

Emergency vehicle access from the north and south would be permitted via a bollard-protected connection between lower and upper Rapp Road.

On balance, Alternative 9 will mitigate traffic impacts from the projects in the Rapp Road Historic District to the maximum extent practicable and have the added benefit of reducing existing commuter traffic in the Rapp Road corridor. The reduced traffic in the vicinity of the Karner Blue Butterfly migration corridor would also be an environmental benefit.

Alternative 9 is located entirely within the jurisdiction of the Town of Guilderland and will be implemented in the event the City of Albany declines to participate in the implementation of any of the other acceptable Alternatives.

The following Alternatives will also mitigate potential traffic impacts to upper Rapp Road but require cooperation and participation by the City of Albany.

Alternative 5A – terminates the connection between the Rapp Road Historic District on northern Rapp Road and the projects on southern Rapp Road and Crossgates Mall Road. This Alternative would eliminate both existing commuter traffic and project related traffic from the south. Access to and from Gipp Road would be from the south only and Pine Lane and Wilan Lane would be accessible exclusively from the north. No emergency vehicle access would be available between the northerly and southerly sections of Rapp Road.

Alternative 5A would reduce existing commuter traffic and mitigate project related traffic to the maximum extent practicable. The Rapp Road Historic District has identified Alternative 5A as the preferred Alternative. Alternative 5A is within the City of Albany and its implementation would require cooperation and participation by the City of Albany.

Alternative 5D – dead-ends the northernmost segment of Rapp Road at its intersection with Springsteen Road, and restores two-way traffic on Springsteen, providing north and south bound traffic access to and from Washington Avenue Extension. All access to the northernmost segment of Rapp Road, including emergency vehicle access, would be from the north via the Frontage Road.

Alternative 5D would eliminate all traffic, including commuter traffic and Project related traffic, from the segment of Rapp Road located north of the Rapp/Springsteen intersection in the Rapp Road Historic District, and would mitigate traffic impacts from commuter traffic and the projects on the northernmost segment of Rapp Road..

Alternative 5D is located entirely within the jurisdiction of the City of Albany and its implementation would require the cooperation and participation by the City of Albany.

Alternative 4/6. The Planning Board has also considered an alternative which combines the elements of two alternatives presented in the record, Alternatives 4 and 6. This alternative would re-route Gipp Road through the northern 200' buffer in the northwest corner of Site 1 and connect the Gipp Road traffic to the northernmost internal access drive on Site 1, move the Gipp Road/Rapp Road intersection to the south, and establish a cross-connection to the Crossgates Mall ring road at the new Gipp Road intersection with Rapp Road. A realignment of the internal Crossgates ring road would make this cross connection work more efficiently. The alternative 4 component of this alternative calls for the segment of Rapp Road north of this intersection to be converted to one-way south bound, thereby eliminating all northbound commuter and project generated traffic from travelling through the Rapp Road Historic District

North bound emergency vehicle access would require vehicles to proceed northbound over the short one-way southbound segment of Rapp Road north of the relocated Gipp Road/Rapp Road intersection. Southbound emergency vehicle access would continue in its current pattern.

As with Alternative 6, this combined alternative would impact a portion of the forested 200' northerly buffer between the apartment development on Site 1 and the Albany Pine Bush Commission protected lands to the north of the current location of Gipp Road. However, this alternative would remove the segment of Gipp Road within the Karner blue butterfly migratory corridor and limit traffic to one way on Rapp Road within this migratory corridor. The rerouting of Gipp Road would create a wider more contiguous wildlife migratory corridor and combined with restricting traffic to one way southbound, reduce traffic that currently bisects the corridor significantly.

This combined alternative would (1.) re-route east and north-bound Gipp Road traffic to the Crossgates Mall ring road, (2.) eliminate all north-bound commuter and project-related traffic from entering northern Rapp Road and the Rapp Road Historic District. In addition to providing environmental benefits to the adjoining Pine Bush Habitat, this combined alternative would significantly reduce existing commuter and project-related traffic impacts within the Rapp Road Historic District.

Several components of this combined alternative are located in the City of Albany and its implementation would require the cooperation and participation of the City.

Alternative 4/5D/6. Finally, the Planning Board has also considered an alternative which combines the elements of three alternatives presented in the record, Alternatives 4, 5D, and 6. This alternative would add the road improvements

identified in Alternative 5D to the Alternative 4/6 alternative described above. The Alternative 5D component of this plan would terminate the northernmost segment of Rapp Road at its intersection with Springsteen Road, and convert Springsteen Road back to two-way traffic.

Emergency vehicle access to the new dead-end northernmost segment of Rapp Road would be available only from the Frontage Road.

As described above with respect to Alternative 4/6, this combined alternative would also impact a portion of the forested 200' northerly buffer between the apartment development on Site 1 and the Albany Pine Bush Commission protected lands to the north of the current location of Gipp Road. However, as noted above, the rerouting of Gipp Road and traffic reductions along Rapp Road have environmental benefits for the Pine Bush habitat and existing Preserve lands.

This combined alternative would (1.) re-route east and north-bound Gipp Road traffic to the Crossgates Mall ring road, (2.) eliminate all north-bound commuter and project-related traffic from entering northern Rapp Road and the Rapp Road Historic District, and (3.) eliminate all traffic, including commuter traffic and project related traffic, from the segment of Rapp Road located north of the Rapp/Springsteen intersection in the Rapp Road Historic District.

This combined alternative would also significantly reduce existing commuter and project-related traffic impacts within the Rapp Road Historic District .

Several components of this combined alternative are located in the City of Albany and its implementation would require the cooperation and participation of the City.

It is noted that the [City's](#) only preferred alternative ([Alternative 1 - the Eastern By-Pass](#)) has not been identified as an acceptable Alternative as a result of traffic impacts and environmental concerns. Alternative 1 would relocate the existing travel corridor through the Rapp Road Historic District by terminating Rapp Road just north of Pine Lane. North-south commuter and project related traffic on Rapp Road would be re-routed to a new road located east of several houses in the Rapp Road Historic District (the "Eastern By-Pass"), effectively relocating traffic from their front yards to their backyards. The Eastern By-Pass would be constructed in Area 62, a parcel adjacent to the Karner Blue Butterfly migration corridor and designated as requiring "Full Protection" under the Pine Bush Management Plan. The new By Pass Road would also increase speed of traffic and related noise impacts based on such greater speeds.

All emergency vehicle access to the Rapp Road Historic District would be from the Frontage Road in the City of Albany.

Alternative 1 has been evaluated and determined, on balance, to potentially cause more environmental harm, such as bisecting the existing Karner Blue Butterfly Corridor with a new road, at higher speeds, which has the additional negative impact of more noise impacts, than this Alternative might provide. The Eastern By Pass would be located in the backyards of residents in the Rapp Road Historic District, as opposed to their front yards. It also would eliminate the

proposed conveyance of 8.4 acres of land to the Albany Pine Bush Preserve Commission by the Applicant to create an expanded Karner Blue Butterfly corridor area.

DECLARATION OF FINDINGS CERTIFYING THE PROJECT IS APPROVABLE

Based upon the information contained in the DEIS and FEIS, and as outlined in this Findings Statement and the supporting documentation provided, the Town of Guilderland Planning Board, as Lead Agency, hereby finds that the project, as proposed, is approvable and minimizes potential environmental impacts to the maximum extent practicable and will provide the necessary balance between the protection of the environment and the need to accommodate social and economic considerations. Having considered the complete EIS record, including the DEIS and FEIS, and having considered the preceding written facts and conclusions relied upon to meet the requirements of [6 NYCRR Part 617.11](#), this Findings Statement certifies that:

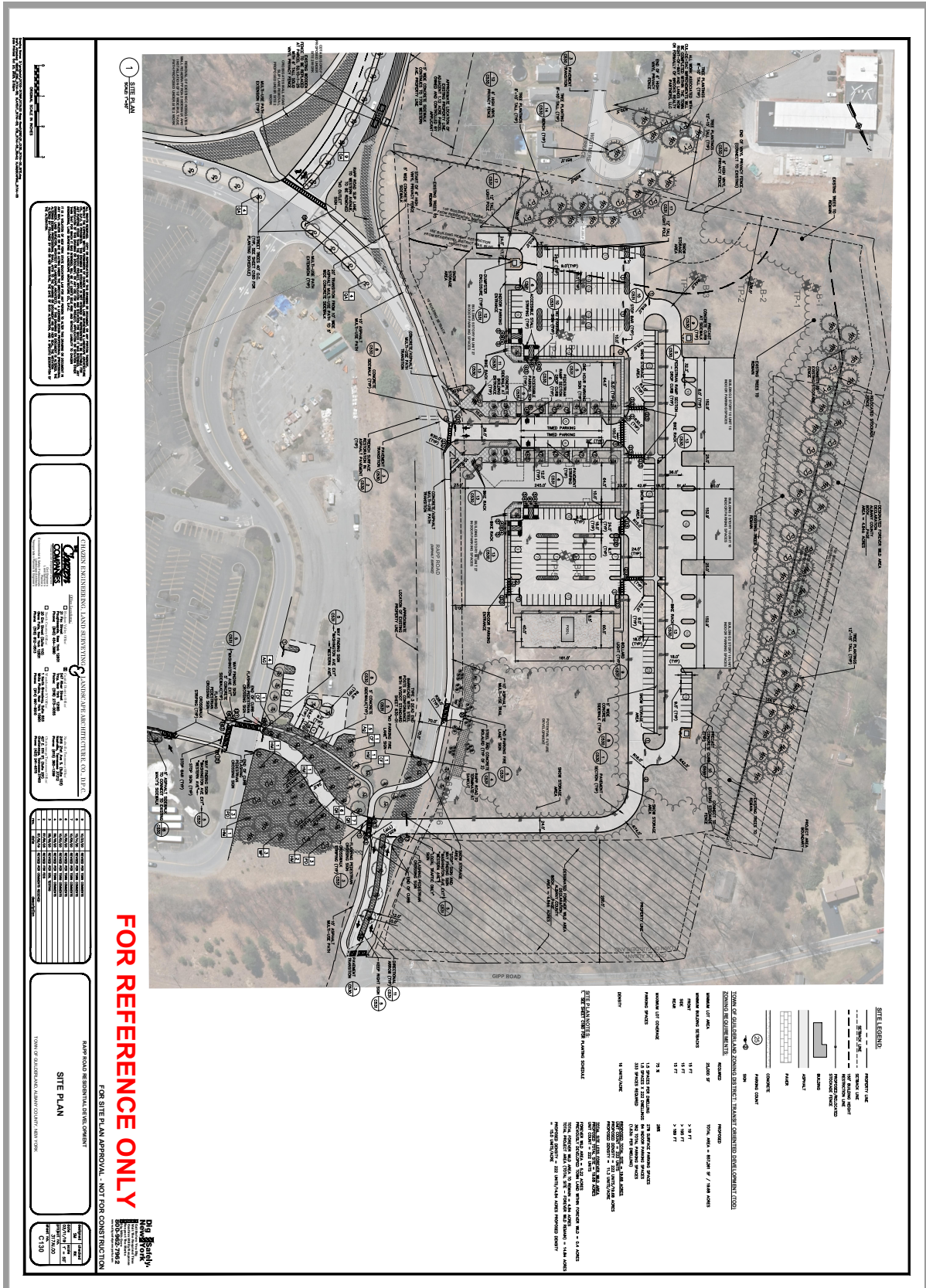
1. The requirements of 6 NYCRR Part 617 have been met; and;
2. Consistent with social, economic and other essential considerations from among the reasonable alternatives available, the action is the one that avoids or minimizes adverse environmental impacts to the maximum extent practicable, and that adverse impacts will be avoided or minimized to the maximum extent practicable by incorporating as conditions to the decision those mitigative measures that were identified as practicable.

Copies of the DEIS and FEIS were made available at:

- Town of Guilderland Town Hall
- Online via a link on the Town of Guilderland website:
<https://www.townofguilderland.org/planning-board/pages/environmental-impact-statement-rapp-road-residentialwestern-avenue-mixed-use>

Copies of this Findings Statement will be filed with:

- Town of Guilderland Town Clerk
- Town of Guilderland Supervisor
- Involved Agencies
- Planning Board
- The applicant





July 14, 2022

Ken Kovalchik
Town Planner
Town of Guilderland Planning Department
Guilderland Town Hall – 2nd Floor
5209 Western Turnpike
Guilderland, NY 12084

SUBJECT: Apex at Crossgates

CDTA has reviewed the site plan for the above referenced proposal. We appreciate the opportunity to provide comments on this project.

We greatly appreciate the efforts made to include multi-modal access to this property. Since CDTA would be adding a stop to serve this location, we ask for a few changes to the plan:

1. Move the proposed CDTA stop further north (closer to the intersection) to shave a hundred feet off residents walking distance.
2. Provide for a stop eastbound on Crossgates Mall Road (immediately after the intersection with Rapp Road) so residents can also catch Route #10 to transfer at Crossgates Station when the Purple Line is launched.
3. Widen the multi-use path to twelve feet, which is the standard width for a bi-directional shared use path according to the NYSDOT Highway Design manual.
4. Add more bike racks for residents who want to bike to Crossgates Station.

Please feel free to contact me to discuss these comments further. Thank you for including CDTA in the review process for this proposal.

Sincerely,

Ethan Warren
Senior Planner, CDTA

cc: Ross Farrell— Director of Planning, CDTA

Jayme B Lahut
Chairperson
Schenectady County

Michael J. Criscione
Vice-Chairperson
Albany County

Georgeanna M. Nugent
Treasurer
Saratoga County

Joseph M. Spairana, Jr.
Secretary
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David M. Stackrow
Rensselaer County

Dense A. Figueroa
Albany County

Mark A. Schaeffer
Albany County

Jaclyn L. Falotico
Schenectady County

Peter D. Wohl
Saratoga County

Patrick M. Lance, Sr.
Labor Representative

Carm Basile
Chief Executive Officer



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New York Ecological Services Field Office
3817 Luker Road
Cortland, NY 13045-9385
Phone: (607) 753-9334 Fax: (607) 753-9699
Email Address: fw5es_nyfo@fws.gov



In Reply Refer To:

July 19, 2022

Project code: 2022-0062582

Project Name: Apex @ Crossgates 222 Unit Multiple Residence Community

Subject: Consistency letter for the 'Apex @ Crossgates 222 Unit Multiple Residence Community' project indicating that any take of the northern long-eared bat that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o).

Dear Kenneth Kovalchik:

The U.S. Fish and Wildlife Service (Service) received on July 19, 2022 your effects determination for the 'Apex @ Crossgates 222 Unit Multiple Residence Community' (the Action) using the northern long-eared bat (*Myotis septentrionalis*) key within the Information for Planning and Consultation (IPaC) system. You indicated that no Federal agencies are involved in funding or authorizing this Action. This IPaC key assists users in determining whether a non-Federal action may cause “take”^[1] of the northern long-eared bat that is prohibited under the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.).

Based upon your IPaC submission, any take of the northern long-eared bat that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o). Unless the Service advises you within 30 days of the date of this letter that your IPaC-assisted determination was incorrect, this letter verifies that the Action is not likely to result in unauthorized take of the northern long-eared bat.

Please report to our office any changes to the information about the Action that you entered into IPaC, the results of any bat surveys conducted in the Action area, and any dead, injured, or sick northern long-eared bats that are found during Action implementation.

If your Action proceeds as described and no additional information about the Action’s effects on species protected under the ESA becomes available, no further coordination with the Service is required with respect to the northern long-eared bat.

The IPaC-assisted determination for the northern long-eared bat **does not** apply to the following ESA-protected species that also may occur in your Action area:

- Karner Blue Butterfly *Lycaeides melissa samuelis* Endangered

07/19/2022

2

- Monarch Butterfly *Danaus plexippus* Candidate

You may coordinate with our Office to determine whether the Action may cause prohibited take of the animal species listed above.

[1]Take means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct [ESA Section 3(19)].



July 12, 2022

Mr. Kenneth Kovalchik (*via electronic mail only*)
Town of Guilderland Planner
Guilderland Town Hall – 2nd floor
5209 Western Avenue
P.O. Box 339
Guilderland, NY 12084

RE: APEX at Crossgates – Site Plan Amendment

Dear Mr. Kovalchik,

Thank you for your June 30, 2022 e-mail providing the Albany Pine Bush Preserve Commission (APBPC) with an internet link to the materials for the above referenced project and requesting APBPC review and comment. The APBPC appreciates the opportunity to work with the Town of Guilderland and the applicant to balance appropriately located development with the successful conservation of the Albany Pine Bush (APB). The APBPC Technical Committee and staff provide the following comments for consideration.

In response to earlier requests from the Town and Albany County, we previously provided:

- March 10, 2020 review of DEIS for Rapp Road Residential Development.
- January 25, 2019 review of the Site Plan Application materials.
- April 18, 2019 summary of proposed mitigation.
- October 7, 2019 review of proposed Rapp Road bypass options.

It appears that the amended site plan provides for a slightly reduced development footprint, while retaining all the offsetting measures previously committed by the applicant and detailed in the DEIS, FEIS and SEQR Findings Statement, including but not limited to:

- protecting approximately 8.4 acres within Full Protection Areas 62 and 79;
- providing new/updated indoor and outdoor education/outreach space highlighting Karner blue butterfly (Kbb) and Pitch Pine Scrub Oak Barrens conservation, the APB Preserve, and the applicant's role in balancing conservation and economic development in the APB;
- modifying Rapp Road to improve ecosystem function within the Kbb corridor area; and
- maintaining a 200-foot permanent buffer near Gipp Road in Partial Protection Area 57.

As such the revised project appears consistent with earlier APBPC comments.

In conclusion, the revised site plan appears consistent with earlier APBPC comment. The APBPC appreciates the Town of Guilderland's and the applicant's efforts to support creating and managing a viable preserve while balancing conservation and economic development interests. Thank you for considering these comments and recommendations. If you have any questions or comments regarding this matter, please do not hesitate to contact me.

Sincerely,



Neil A. Gifford
Conservation Director
Albany Pine Bush Preserve Commission

cc: APBPC Technical Committee
Mr. Anthony Luisi, APBPC Chair – NYSDEC Region 4 Director
Mr. Christopher A. Hawver, APBPC Executive Director
Ms. Trish Gabriel, NYSDEC Environmental Analyst – Region 4
Mr. Michael Clark, Regional Wildlife Supervisor, NYSDEC-Region 4

Citations:

APBPC. 2017. Management Plan Update for the Albany Pine Bush Preserve. Albany, NY. (www.albanypinebush.org)

**Parks, Recreation,
and Historic Preservation****KATHY HOCHUL**
Governor**ERIK KULLESEID**
Commissioner

July 28, 2022

Mr. Kenneth Kovalchik
Town Planner
Town of Guilderland
Route 20, PO Box 339
Guilderland, NY 12084-0339

Re: USACE/ DEC/ SEQRA
Proposed Rapp Road Residential/Western Avenue Mixed Use Redevelopment (Apex at Crossgates)
19PR01578

Dear Mr. Kovalchik:

Thank you for requesting the comments of the New York State Historic Preservation Office (SHPO). We have reviewed the provided documentation in accordance with Section 106 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Historic/Cultural resources. They do not include other environmental impacts to New York State Parkland that may be involved in or near your project.

We have reviewed your letter, dated June 30, 2022, describing the proposed site plan amendment for this project. Please note that John Bonafide is no longer with OPRHP. Nancy Herter is the current Director of the Technical Services Bureau at OPRHP. We understand that the site plan amendment includes relocating the proposed apartment buildings to the north on Site 1.

According to our records, the project includes three sites to be developed as follows:

The proposed action, generally, consists of the following: Site 1 - Development of 222 one- and two-bedroom apartments and 3,900 square feet of commercial space on a ±19 acre site; Site 2 - Development of ±160,000 square feet Costco retail use with associated fueling facility located on ±16 acres and Site 3 - Conceptual development of ±115,000 SF of retail, 50,000 SF of office space, and 48 apartments on 11.34 acres. The proposed action is located generally at Rapp Road, Crossgates Mall Road and Western Avenue in the Town of Guilderland.

The site plan amendment indicates that the traffic pattern alternative (Alternative 9) has not changed. Our office previously expressed our concerns with any aspect of the project that would continue to increase traffic along the National Register listed Rapp Road Community Historic District. According to John Bonafide's August 12, 2020, effect finding letter for this project:

"We have reviewed the included Appendix 26 that provided a series of access alternatives. Our office continues to find that adding any additional traffic to Rapp Road will be detrimental to the district. We further believe that the current levels of traffic through the

New York State Office of Parks, Recreation and Historic Preservation
Division for Historic Preservation, Peebles Island, PO Box 189, Waterford, New York 12188-0189
(518) 237-8643 • <https://parks.ny.gov/shpo>

district are adverse and should be reduced as part of this major new undertaking at Crossgates. As such, any alternative that does not terminate Rapp Road (upper and lower) as a through-street between Washington Avenue (via Frontage Street) and the Crossgates Ring Road will have an adverse impact upon the district."

The amended proposal for Site 1 does not change our previous assessment of the project. Because the traffic pattern remains as previously proposed, we continue to have concerns, and it is the opinion of the OPRHP that the proposed project will have an Adverse Effect to historic resources.

It is our understanding that the project will likely require DEC and Army Corps permits. As such, adverse impacts/ effects must be addressed, and avoided or mitigated as part of the permitting process.

If you have any questions, I can be reached via email or at (518) 268-2164.

Sincerely,



Weston Davey
Historic Site Restoration Coordinator
Weston.davey@parks.ny.gov

CC: Charles Vandrei, DEC
Andrew Dangler, USACE

New York State Office of Parks, Recreation and Historic Preservation
Division for Historic Preservation, Peebles Island, PO Box 189, Waterford, New York 12188-0189
(518) 237-8643 • <https://parks.ny.gov/shpo>



Engineering | Design | Planning | Construction Management

August 3, 2022

SENT VIA E-MAIL

Kenneth Kovalchik, Town Planner
The Town of Guilderland
Town Hall, Route 20
Guilderland, NY 12084

RE: The Apex at Crossgates -TDE Review

Dear Mr. Kovalchik,

At the request of the Town, Greenman-Pedersen, Inc. (GPI) has reviewed updated project documents related to the site plan amendment of the subject project. Our review focused on the traffic impacts of the project changes and the proposed Westmere Terrace cul-de-sac.

GPI has reviewed the following documents provided by the Town:

- Collier Engineering traffic review letter, dated 6/28/2022
- Apex at Crossgates Site Plan, dated 6/3/2022
- Cul-De-Sac enlargement on two (2) Detail sheets dated July 29, 2022 by LaBella.

Traffic Review:

Based on our review, the changes to the site plan will have minimal impact on traffic operations compared to the originally approved configuration. Findings from our traffic review are as follows:

1. By spreading out the buildings on-site, the area previously reserved for future development has been removed. This reduces the overall future trip generation potential of the site.
2. The new layout shifts the southern site driveway closer to the Crossgates Mall Rd and Rapp Rd signalized intersection. However, with the diversion of existing Rapp Rd traffic along this road segment, which is currently planned and approved, this approach to the traffic signal will see greatly reduced traffic volumes and queues, compared to existing conditions. As a result, the driveway shift will have minimal impact on traffic operations and should not be an issue.
3. No other traffic impacts were identified.

Overall, GPI concurs with the findings of the Collier review letter and find that the new site configuration will generate no additional impact on the transportation system than the originally approved site plan.

Westmere Terrace Cul-de-sac Review:

GPI has completed a review of the materials and offer the following considerations as technical comments for design approval of the cul-de-sac at the end of Westmere Terrace. GPI's review primarily relates to the proposed cul-de-sac geometry, design, and elements within the ROW. The surrounding improvements outside of the proposed roadway that do not impact the cul-de-sac design were not included in this review.

1. A north arrow is needed on detail 19 (the plan view of the cul-de-sac).
2. The provided pavement section does not match the Town of Guilderland standard road section detail. The following items were found to be inconsistent from the Town's standards:
 - a. The pavement top course and binder course materials do not match the materials in the Town detail; however they appear to be acceptable due to updated/current material standards from the NYSDOT.
 - b. Town standard required 5" minimum of asphalt while only 4" total is proposed.
 - c. The proposed subbase section does not meet Town standards for materials and depth. Labella is proposing 8" of Type 2 subbase when the Town standard calls for 6" of Type 4 with 12" of Type 3 subbase material below that.
3. There are two existing driveways affected by the proposed cul-de-sac improvements (not including the removed driveway). One of the driveways is shown as partially repaved, while the other has improvements along the proposed wing edge curb. The plans should include a note to ensure there is a flush transition between the existing and proposed pavement surfaces.
4. It is unclear what the proposed groundcover is within the cul-de-sac island. If grass turf is planned, the existing asphalt driveway needs to be removed entirely.
5. The proposed catch basin structure needs to include invert information for both the proposed and existing structures. Additionally, the pipe connection between the structures should include material, size and slope information on the plan.
6. It is recommended a bypass swale be graded in along the toe of the berm's slope to direct runoff to the existing catch basin and minimize water sheeting into the roadway.
7. There are low hanging wires across the existing utility poles that may impact emergency or trash vehicles' ability to use the cul-de-sac as a turnaround. Additionally, the proposed berm does not appear to take the overhead wire location into account and may present a conflict.
8. The corner radius where the cul-de-sac meets the roadway is shown as 25'. This should be updated to min. 28' radius as suggested by the International fire code.
9. The Applicant should ensure that the proposed cul-de-sac still allows for adequate access to the existing fire hydrant from the pavement limits.
10. The plan does not appear to include any erosion and sediment control measures. The Applicant will need to show adequate erosion and sediment control measures for the proposed cul-de-sac work.
11. The berm's slope is shown as 2:1 and appears to be filled over existing grade. The Town's grading requirements do not allow for fill slopes to be steeper than 3:1.
12. A detail should be provided for the wing edge curb construction as there does not appear to be one included on the plans.
13. The Applicant should identify the new location of the dead-end sign that currently exists at the end of the cul-de-sac.
14. It is unclear if municipal sanitary sewer service is located on Westmere Terrace and if any changes will be required based on the roadway reconfiguration.

If you have any questions on the review comments, please feel free to contact me.

Sincerely,

GPI/GREENMAN-PEDERSEN, INC.



Ryan Trunko, PE
Project Manager
80 Wolf Road, Suite 300, Albany, NY 12205
518-898-9551 | rtrunko@gpinet.com

GPI/GREENMAN-PEDERSEN, INC.



Michael R. Wieszchowski, P.E., PTOE
Vice President | Director of Traffic Engineering

LEGAL NOTICE
NOTICE OF PUBLIC HEARING
PUBLIC HEARING NOTICE.
TOWN OF GUILDERLAND, ALBA-
NY COUNTY, NY. Notice is hereby
given that the Planning Board will
conduct a public hearing as part
of its regularly scheduled Board
meeting on Wednesday, August
10, 2022 commencing at approx-
imately 7:00 p.m. at the Guilderland
Town Hall, Rte., 20, Guilderland,
NY, regarding a site plan amend-
ment application for a previously
approved 222-unit multiple-fam-
ily residential project located on
+/- 19.68 acres at the SW corner
of Rapp Road/Clipp Road. This
project, Apex at Crossgates, which
was formerly known as Rapp Road
Apartments, received site plan
approval by the Planning Board
on October 28, 2020, and was
included in the Rapp Road Resi-
dential/Western Avenue Mixed Use
Redevelopment Projects Environ-
mental Impact Statement adopted
by the Planning Board on July 31,
2020. Application materials can
be viewed in the Planning Dept.
at Town Hall, M-F 9:00 a.m. - 4:30
p.m. or on the town website. For
further information, please contact
the Guilderland Planning Board,
c/o Kenneth Kovalchik, AICP, Town
Planner, via email at kovalchik@
tognny.org.
56-11

**DELAWARE ENGINEERING, D.P.C.**

28 Madison Avenue Extension
Albany, New York 12203

Tel: 518.452.1290
Fax: 518.452.1335

August 3, 2022

Kenneth Kovalchik, AICP, Town Planner
Guilderland Town Hall
5209 Western Turnpike, P.O. Box 339
Guilderland, New York 12084

RE: The Apex at Crossgates
Stormwater Review

Dear Mr. Kovalchik:

Delaware Engineering has reviewed the Stormwater Pollution Prevention Plan for the proposed 192 apartments and 30 townhomes on Rapp Road.

Below are the comments related to the proposed stormwater design.

1. Please provide justification for the use of "fair" and "poor" conditions for ground cover CN values when calculating the predevelopment conditions, or revise the HydroCAD model and use "good" condition values for the assessment.
2. Please remove the Bioretention Media and the Drainage Stone volumes from the BIO1 node in the HydroCAD model. Including these two volumes in the model allows stormwater to enter and fill those volumes before filling the ponding volume.
3. It appears that the Bioretention area in the HydroCAD model has four horizontal grate outlets at 286.08', however, the plans show two horizontal grates at 286.08' and two at 286.63'. Please review.
4. The exfiltration outlet for the Infiltration Basin node in the HydroCAD model should be revised to only allow exfiltration across the bottom of the infiltration basin. Please revise.
5. Please clearly label the Infiltration Basin Overflow Weir on the plans.
6. Please include herbaceous plants, that will be planted across the bottom of the Bioretention Area, in the plant schedule. Seeding the bottom of the bioretention area is not acceptable due to the hardwood mulch per the design.
7. Please include a pea stone diaphragm detail in the plans.

223 Main Street
Goshen, New York 10924
845.615-9232

548 Broadway
Monticello, New York 12701
854.791.7777

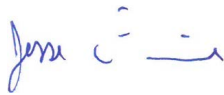
55 South Main Street
Oneonta, New York 13820
607.432.8073

16 East Market Street
Red Hook, NY 12571
518.452.1290

DELAWARE ENGINEERING, D.P.C.

Please do not hesitate to contact me with any questions or concerns at (518) 452-1290 x211 or via email at jfraine@delawareengineering.com.

Sincerely,

A handwritten signature in blue ink, appearing to read "Jesse Fraine".

Jesse Fraine
Engineer

CC: Roger E. Keating, PE - LaBella Associates

Stormwater Pollution Prevention Plan

The Apex at Crossgates

Rapp Road
Town of Guilderland
Albany County, New York

July 22, 2022

Revised August 8, 2022



Prepared for:

UG Family, LLC
An Affiliate of The United Group of Companies
300 Jordan Road
Troy, NY 12180

Stormwater Pollution Prevention Plan

The Apex at Crossgates

Rapp Road
Town of Guilderland
Albany County, New York

July 22, 2022

Revised August 8, 2022



Prepared by:

LaBella Associates, DPC
4 British American Boulevard,
Latham, NY 12110
(518) 273-0055

PREPARER OF THE SWPPP

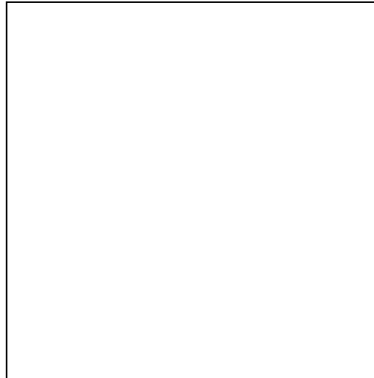
"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person(s) who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that false statements made herein are punishable as a Class A misdemeanor pursuant to Section 29.45 of the Penal Law."

Name¹: Roger Keating, PE

Title: Director

Date: July 22, 2022

Revised: August 8, 2022



¹ This is a signature of a New York State licensed Professional Engineer employed by LaBella Associates that is duly authorized to sign and seal Stormwater Pollution Prevention Plans (SWPPPs), NOIs, and NOTs prepared under their direct supervision. Refer to Appendix H for the LaBella Certifying Professionals Letter.

Project Number: 2222678

LaBella Associates
Revised: August 8, 2022

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1.0 EXECUTIVE SUMMARY

This Stormwater Pollution Prevention Plan (SWPPP) has been prepared for major activities associated with construction of The Apex at Crossgates (the "Project"), Town of Guilderland, Albany County, NY. This SWPPP includes the elements necessary to comply with the national baseline general permit for construction activities enacted by the U.S. Environmental Protection Agency (EPA) under the National Pollutant Discharge Elimination System (NPDES) program and all local governing agency requirements. This SWPPP must be implemented at the start of construction.

This SWPPP has been developed in accordance with the "New York State Department of Environmental Conservation (NYSDEC) State Pollution Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity" General Permit Number GP-0-20-001, effective January 29, 2020 through January 28, 2025. The SWPPP and accompanying plans identify and detail stormwater management, pollution prevention, and erosion and sediment control measures necessary during and following completion of construction.

This SWPPP and the accompanying plans entitled "The Apex at Crossgates" have been submitted as a set. These engineering drawings are considered an integral part of this SWPPP. Therefore, this SWPPP is not considered complete without them. References made herein to "the plans" or to a specific "sheet" refer to these drawings.

This report considers the impacts associated with the intended development with the purpose of:

1. Maintaining existing drainage patterns as much as possible while continuing the conveyance of upland watershed runoff;
2. Controlling increases in the rate of stormwater runoff resulting from the proposed development so as not to adversely alter downstream conditions; and
3. Mitigating potential stormwater quality impacts and preventing soil erosion and sedimentation resulting from stormwater runoff generated both during and after construction.

The analysis and design completed and documented in this report is intended to be part of the application made for a mixed-use residential/commercial development project completed on behalf of UG Family, LLC.

1.1 Project Description

UG Family, LLC is proposing a mixed-use development on 18 acres of land west of the existing Crossgates Mall north of NYS Route 20 and west of Rapp Road. A location map of the site has been provided in Appendix G, as Figure 1.

This type of project is included in Table 2 of Appendix B of GP-0-20-001, and the project site is not located in one of the watersheds listed in Appendix C of GP-0-20-001. Therefore, this SWPPP includes post-construction stormwater management practices, as well as erosion and sediment controls.

The Project is located within the Town of Guilderland, a regulated, traditional land-use control Municipal Separate Stormwater Sewer System (MS4). Therefore, an MS4 SWPPP Acceptance Form is required to accompany NOIs submitted to the NYSDEC.

Runoff from the project site will discharge to a closed drainage system that ultimately discharges to the Normanskill, which is not included in the list of Section 303(d) water bodies included in Appendix E of GP-0-20-001.

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Project construction activities will consist primarily of site grading, paving, building construction, and the installation of storm drainage, water supply, sewage collection, and public utility infrastructure necessary to support the proposed development. Construction phase pollutant sources anticipated at the site are disturbed (exposed) soil, vehicle fuels and lubricants, chemicals associated with building construction, and building materials. Without adequate control there is the potential for each type of pollutant to be transported by stormwater.

1.2 Stormwater Pollution Controls

The stormwater pollution controls outlined herein have been designed and evaluated in accordance with the following standards and guidelines:

- New York State Stormwater Management Design Manual, dated January 2015 (Design Manual).
- New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016 (SSESC).
- Town of Guilderland General Legislation, Chapter 241 Stormwater Management, Article II Stormwater Management and Erosion and Sediment Control.

Stormwater quality will be enhanced through the implementation of temporary and permanent erosion and sediment control measures, the proposed stormwater management facilities, and other construction-phase pollution controls outlined herein.

The proposed stormwater collection system, consisting of pipes, and on-site stormwater management facilities, will adequately collect, treat, and convey the stormwater runoff.

Infiltration basins, bioretention and underground infiltration chambers will be used to manage and treat stormwater runoff generated by the proposed development.

Pre- and post-development surface runoff rates have been evaluated for the 1-, 10-, and 100-year 24-hour storm events. Comparison of pre- and post-development watershed conditions demonstrates that the peak rate of runoff from the project site will not be increased.

The post-construction stormwater management practice(s) will be privately owned by UG Family, LLC. Deed restrictions will be in place, which require operation and maintenance of the practice(s) in accordance with the operation and maintenance plan.

1.3 Conclusion

The Project is subject to the requirements of the Town of Guilderland's regulated MS4, and this SWPPP has been prepared in conformance with the current Design Manual and SSESC. As such, GP-0-20-001 coverage will be effective five (5) business days from the date the NYSDEC receives the electronically submitted eNOI and signed "MS4 SWPPP Acceptance" form, or ten (10) business days from the date the NYSDEC receives the complete paper NOI and signed "MS4 SWPPP Acceptance" form.

2.0 SWPPP IMPLEMENTATION RESPONSIBILITIES

A summary of the responsibilities and obligations of all parties involved with compliance with the NYSDEC SPDES General Permit GP-0-20-001 conditions is outlined in the subsequent sections. For a complete listing of the definitions, responsibilities, and obligations, refer to the SPDES General Permit GP-0-20-001 presented in Appendix A.

2.1 Definitions

1. "General SPDES Permit" means a SPDES permit issued pursuant to 6 NYCRR Part 750-1.21 authorizing a category of discharges.
2. "Owner" or "Operator" means the person, persons, or legal entity which owns or leases the property on which the *construction activity* is occurring; and/or an entity that has operational control over the construction plans and specifications, including the ability to make modifications to the plans and specifications. There may be occasions during the course of a project in which there are multiple Owners/Operators, all of which will need to file and maintain the appropriate SWPPP documents and plans, including without limitation, the Notice of Intent (NOI) and Notice of Termination (NOT).
3. "Owner's/Operator's Engineer" means the person or entity retained by an Owner/Operator to design and oversee the implementation of the SWPPP.
4. "Contractor" means the person or entity identified as such in the construction contract with the Owner/Operator. The term "Contractor" shall also include the Contractor's authorized representative, as well as any and all subcontractors retained by the Contractor.
5. "Qualified Inspector" means a person that is knowledgeable in the principles and practices of erosion and sediment control, such as licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, or other Department endorsed individual(s).

It can also mean someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided that person has training in the principles and practices of erosion and sediment control. Training in the principles and practices of erosion and sediment control means that an individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect has received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect shall receive four (4) hours of training every three (3) years.

It can also mean a person that meets the *Qualified Professional* qualifications in addition to the *Qualified Inspector* qualifications.

Note: Inspections of any post-construction stormwater management practices that include structural components, such as a dam for an impoundment, shall be performed by a licensed Professional Engineer.

6. "Qualified Professional" means a person that is knowledgeable in the principles and practices of stormwater management and treatment, such as a licensed Professional Engineer, Registered Landscape Architect, or other Department endorsed individual(s). Individuals preparing SWPPPs that require the post-construction stormwater management practice component must have an understanding of the principles of hydrology, water quality management practice design, water quantity control design, and, in many cases, the principles of hydraulics. All components of the SWPPP that involve the practice of engineering, as defined by the NYS Education Law (see Article 145), shall be prepared by, or under the direct supervision of, a professional engineer licensed to practice in the State of New York.
7. "Trained Contractor" means an employee from a contracting (construction) company, identified in Part III.A.6., that has received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the *Trained Contractor* shall receive four (4) hours of training every three (3) years.

It can also mean an employee from a contracting (construction) company, identified in Part III.A.6., that meets the *Qualified Inspector* qualifications (e.g. licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, or someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity.

The "Trained Contractor(s)" will be responsible for the day to day implementation of the SWPPP.

2.2 Owner's/Operator's Responsibilities

1. Ensure that control measures are selected, designed, installed, implemented and maintained to minimize the discharge of pollutants and prevent a violation of the water quality standards, meeting the non-numeric effluent limitations in Part I.B.1.(a)-(f) of the SPDES General Permit and in accordance with the New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016.
2. Ensure that practices are selected, designed, installed, and maintained to meet the performance criteria in the Design Manual. Practices must be designed to meet the applicable sizing criteria in Part I.C.2.a., b., c. or d. of GP-0-20-001.
3. Retain the services of a "Qualified Inspector" or "Qualified Professional" as defined under Section 2.1, to provide the services outlined in Section 2.5 "Qualified Inspector's/Qualified Professional's Responsibilities."
4. Retain the services of a "Qualified Professional," as defined under Section 2.1, to provide the services outlined in Section 2.3 "Owner's/Operator's Engineers Responsibilities."
5. Have an authorized corporate officer sign the completed NOI. A copy of the completed NOI is included in Appendix B.

6. Submit the electronic version of the NOI (eNOI) along with the MS4 SWPPP acceptance form using the NYSDEC's website (<http://www.dec.ny.gov/chemical/43133.html>) or submit the signed NOI along with the MS4 SWPPP acceptance form to the following:

NOTICE OF INTENT
NYS DEC, Bureau of Water Permits
625 Broadway, 4th Floor
Albany, New York 12233-3505

Stormwater Information Center
Town of Guilderland
5209 Western Turnpike
PO Box 339
Guilderland, NY 12084
Attn: Ken D'Arpino, Stormwater Control Officer

7. Pay the required initial and annual fees upon receipt of invoices from NYSDEC. These invoices are generally issued in the fall of each year. The initial fee is calculated as \$110.00 per acre disturbed plus \$675.00 per acre of net increase in impervious cover, and the annual fee is \$110.00.
8. Prior to the commencement of construction activity, identify the contractor(s) and subcontractor(s) that will be responsible for implementing the erosion and sediment control measures and stormwater management practices described in this SWPPP. Have each of these contractors and subcontractors identify at least one "Trained Contractor", as defined under Section 2.1 that will be responsible for the implementation of the SWPPP. Ensure that the Contractor has at least one "Trained Contractor" on site on a daily basis when soil disturbance activities are being performed.
9. Schedule a pre-construction meeting which shall include the Town of Guilderland representative, Owner's/Operator's Engineer, Contractor, and their sub-contractors to discuss responsibilities as they relate to the implementation of this SWPPP.
10. Retain the services of an independent certified materials testing and inspection firm operating under the direction of a licensed Professional Engineer to perform regular tests, inspections, and certifications of the construction materials used in the construction of all post-construction stormwater management practices.
11. Retain the services of a NYS licensed land surveyor to perform an as-built topographic survey of the completed post-construction stormwater management facilities.
12. Require the Contractor to fully implement the SWPPP prepared for the site by the Owner/Operator's Engineer to ensure that the provisions of the SWPPP are implemented from the commencement of construction activity until all areas of disturbance have achieved final stabilization and the Notice of Termination (NOT) has been submitted to the NYSDEC.
13. Forward a copy of the NOI Acknowledgement Letter received from the regulatory agency to the Owner's/Operator's Engineer for project records, and to the Contractor for display at the construction site.
14. Maintain at the construction site a copy of: General Permit (GP-0-20-001); NOI; NOI Acknowledgement Letter; SWPPP with accompanying figures, exhibits, and plans; MS4 SWPPP

Acceptance Form; inspection reports; Spill Prevention, Countermeasures, Cleanup ("SPCC") Plan; and all documentation in accordance with Part I.F.8.a.-d of GP-0-20-001 necessary to demonstrate eligibility with the general permit. These items shall be maintained on site until all disturbed areas have achieved final stabilization and the NOT has been submitted to the NYSDEC. Place documents in a secure location that must be accessible during normal business hours to an individual performing a compliance inspection.

15. Prior to submitting a Notice of Termination, ensure for post-construction stormwater management practice(s) that are privately owned, the Owner/Operator has a deed restriction in place that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan.
16. Submit a Notice of Termination (NOT) form (see Appendix B) within 48 hours of receipt of the Owner's/Operator's Engineer's certification of final site stabilization to the following:

NOTICE OF TERMINATION
NYS DEC, Bureau of Water Permits
625 Broadway, 4th Floor
Albany, New York 12233-3505

Stormwater Information Center
Town of Guilderland
5209 Western Turnpike
PO Box 339
Guilderland, NY 12084
Attn: Ken D'Arpino, Stormwater Control Officer

17. Request and receive all SWPPP records from the Owner's/Operator's Engineer and archive those records for a minimum of five (5) years after the NOT is filed.
18. Implement the Post-Construction Inspections and Maintenance procedures outlined in Appendix F.
19. The NOI, SWPPP, and inspection reports required by GP-0-20-001 are public documents that the Owner/Operator must make available for review and copying by any person within five (5) business days of the Owner/Operator receiving a written request by any such person to review the NOI, SWPPP, or inspection reports. Copying of documents will be done at the requester's expense.
20. The Owner/Operator must keep the SWPPP current at all times. At a minimum, the Owner/Operator shall amend the SWPPP:
 - a) Whenever the current provisions prove to be ineffective in minimizing pollutants in stormwater discharges from the project site;
 - b) Whenever there is a change in design, construction, or operation at the construction site that has or could have an effect on the discharge of pollutants; and
 - c) To address issues or deficiencies identified during an inspection by the "Qualified Inspector," the Department, or other Regulatory Authority.

2.3 Owner's/Operator's Engineer's Responsibilities

1. Prepare the SWPPP using good engineering practices, best management practices, and in compliance with all federal, state, and local regulatory requirements.
2. Prepare the Notice of Intent (NOI) form (see Appendix B), sign the "SWPPP Preparer Certification" section of the NOI, and forward to Owner/Operator for signature.
3. Provide copies of the SWPPP to the Town of Guilderland once all signatures and attachments are complete.
4. Enter Contractor's information in Section 2.5 "SWPPP Participants" once a Contractor is selected by the Owner/Operator.
5. Update the SWPPP each time there is a significant modification to the pollution prevention measures or a change of the principal Contractor working on the project who may disturb site soil.

2.4 Contractor's Responsibilities

1. Sign the SWPPP Contractor's Certification Form contained within Appendix C and forward to the Owner's/Operator's Engineer for inclusion in the Site Log Book.
2. Identify at least one Trained Contractor that will be responsible for implementation of this SWPPP. Ensure that at least one Trained Contractor is on site on a daily basis when soil disturbance activities are being performed. The Trained Contractor shall inspect the erosion and sediment control practices and pollution prevention measures being implemented within the active work area daily to ensure that they are being maintained in effective operating conditions at all times. If deficiencies are identified, the contractor shall begin implementing corrective actions within one business day and shall complete the corrective actions in a reasonable time frame.
3. Provide the names and addresses of all subcontractors working on the project site. Require all subcontractors who will be involved with construction activities that will result in soil disturbance to identify at least one Trained Contractor that will be on site on a daily basis when soil disturbance activities are being performed; and to sign a copy of the Subcontractor's Certification Form contained within Appendix C, then forward to the Owner's/Operator's Engineer for inclusion into the Site Log Book. This information must be retained as part of the Site Log Book.
4. Maintain a Spill Prevention and Response Plan in accordance with requirements outlined in Section 5.4 of this SWPPP. This plan shall be provided to the Owner's/Operator's Engineer for inclusion in the Site Log Book, prior to mobilization on-site.
5. Participate in a pre-construction meeting which shall include the Town of Guilderland's representative, Owner/Operator, Owner's/Operator's Engineer, and all subcontractors to discuss responsibilities as they relate to the implementation of this SWPPP.
6. If Contractor plans on utilizing adjacent properties for material, waste, borrow, or equipment storage areas, or if Contractor plans to engage in industrial activity other than construction (such as operating asphalt and/or concrete plants) at the site, Contractor shall submit

appropriate documentation to the Owner's/Operator's Engineer so that the SWPPP can be modified accordingly.

7. Implement site stabilization, erosion and sediment control measures, and other requirements of the SWPPP.
8. In accordance with the requirements in the most current version of the NYS Standards and Specifications for Erosion and Sediment Control, conduct inspections of erosion and sediment control measures installed at the site to ensure that they remain in effective operating condition at all times. Prepare and retain written documentation of inspections as well as of all repairs/maintenance activities performed. This information must be retained as part of the Site Log Book.
9. Begin implementing corrective actions within one (1) business day of receipt of notification by the Qualified Inspector/Qualified Professional that deficiencies exist with the erosion and sediment control measures employed at the site. Corrective actions shall be completed within a reasonable time frame.
10. Maintain a record of the date(s) and location(s) that soil restoration is performed in accordance with the accompanying plans and NYSDEC Division of Water's publication "Deep-Ripping and Decompaction," dated April 2008. A copy of this publication is provided in Appendix E. The record that is to be maintained shall be a copy of the overall site grading plan delineating the area(s) and date(s) that the soil was restored.
11. Upon completion of all construction at the site, the contractor responsible for overall SWPPP Compliance shall sign the certification on their Contractor Certification Form indicating that:
 - a.) all temporary erosion and sediment control measures have been removed from the site;
 - b.) the on-site soils disturbed by construction activity have been restored in accordance with the SWPPP and the NYSDEC Division of Water's publication "Deep-Ripping and Decompaction;" and
 - c.) all permanent stormwater management practices required by the SWPPP have been installed in accordance with the contract documents.

2.5 Qualified Inspector's/Qualified Professional's Responsibilities

1. Participate in a pre-construction meeting with the Town of Guiderland representative, Owner/Operator, Contractor, and their subcontractors to discuss responsibilities as they relate to the implementation of this SWPPP.
2. Conduct an initial assessment of the site prior to the commencement of construction and certify in an inspection report that the appropriate erosion and sediment control measures described within this SWPPP have been adequately installed and implemented to ensure overall preparedness of the site.
3. Provide on-site inspections to determine compliance with the SWPPP. Site inspections shall occur at an interval of at least once every seven calendar days. A written inspection report shall be provided to the Owner/Operator and general contractor within one business day of

the completion of the inspection, with any deficiencies identified. A sample inspection form is provided in Appendix D.

4. Prepare an inspection report subsequent to each and every inspection that shall include/address the items listed in Part IV.C.4.a-k of GP-0-20-001. Sign all inspection reports and maintain on site with the SWPPP.
5. Notify the owner/operator and appropriate contractor or subcontractor of any corrective actions that need to be taken.
6. Prepare a construction Site Log Book to be used as a record of all inspection reports generated throughout the duration of construction. Ensure that the construction Site Log Book is maintained and kept up-to-date throughout the duration of construction.
7. Review the Contractor's SWPPP records on a periodic basis to ensure compliance with the requirements for daily reports, soil restoration, inspections, and maintenance logs.
8. Based on the as-built survey and material testing certifications performed by others, perform evaluations of the completed stormwater management practices to determine whether they were constructed in accordance with this SWPPP.
9. Conduct a final site assessment and prepare a certification letter to the Owner/Operator indicating that, upon review of the material testing and inspection reports prepared by the firm retained by the Owner/Operator, review of the completed topographic survey, and evaluation of the completed stormwater management facilities, the stormwater management facilities have been constructed substantially in accordance with the contract documents and should function as designed.
10. Prepare the Notice of Termination (NOT). Sign the NOT Certifications VI (Final Stabilization) and VII (Post-construction Stormwater Management Practices), and forward the NOT to the Owner/Operator for signature on Certification VIII (Owner/Operator Certification).
11. Transfer the SWPPP documents, along with all NOI's, permit certificates, NOT's, construction Site Log Book, and written records required by the General Permit to the Owner/Operator for archiving.

2.6 SWPPP Participants

1. Owner's/Operator's Engineer: Roger Keating, PE
LaBella Associates, DPC
4 British American Boulevard
Latham, NY 12110
Phone: (518) 273-0055
Fax: (518) 273-8391
2. Owner/Operator: Michael Uccellini
UG Family, LLC
300 Jordan Road
Troy, NY 12180

Project Number: 2222678

LaBella Associates
Revised: August 8, 2022

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Phone: (518)687-7305

3. Contractor²:

Name and Title: _____

Company Name: _____

Mailing Address: _____

Phone: _____

Fax: _____

² Contractor's information to be entered once the Contractor has been selected.

Project Number: 2222678

LaBella Associates
Revised: August 8, 2022

3.0 SITE CHARACTERISTICS

3.1 Land Use and Topography

The project site is located within the Town of Guiderland's Transit Oriented Development District ("TOD") adopted in early 2018 by the Town Board. Pursuant to the TOD, "Multiple-Family Dwelling, which may include ground floor uses that are a permitted use, site plan use or special use permit in the GB District" are the only uses that are allowed at the Project site west of Rapp Road.

The overall site is moderately sloping, with slopes ranging from 0 to 12%, with the exception of the western portion of the site at the existing berm, which is relatively steep with slopes up to 67%. In general, the project site slopes west to east, originating at the existing berm, and discharging at existing flared end sections along Rapp Road. Site elevations range from approximately 281 feet above mean sea level to 317 feet above MSL.

3.2 Soils and Groundwater

The United States Department of Agriculture (USDA) Web Soil Survey (<http://websoilsurvey.nrcs.usda.gov/app/>) was used to obtain surficial soil conditions for the study area. Soil data as provided by the SCS is presented in Table 1.

Table 1: USDA Soil Data

Map Symbol & Description	Hydrologic Soil Group	Permeability (inches/hour)	Erosion Factor K	Depth to Water Table (inches)	Depth to Bedrock (inches)
CoC - Colonie loamy fine sand, rolling	A	1.98 - 19.98	.24	>80	>80
CoD - Colonie loamy fine sand, hilly	A	1.98 - 19.98	.24	> 80	>80
EnA - Elnora loamy fine sand, 0 to 3 percent slopes	A/D	1.98 - 5.95	.10	18 - 24	>80
Gr - Granby loamy fine sand	A/D	5.95 - 19.98	.10	0	>80
St - Stafford loamy fine sand	A/D	1.98 - 19.98	.15	6 - 18	>80
Ud - Udipsamments, smoothed	-	19.98	.02	>80	>80

Upon review of the soil data presented in Table 1, the project site does not contain soils with a soil slope phase of E or F and/or soils with a map unit name that is inclusive of 25% or greater slope.

The Soil Conservation Service defines the hydrologic soil groups as follows:

- **Type A Soils:** Soils having a high infiltration rate and low runoff potential when thoroughly wet. These soils consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a moderate rate of water transmission.
- **Type D Soils:** Soils having a very low infiltration rate and high runoff potential when thoroughly wet. These soils consist chiefly of clays that have high shrink-swell potential, soils that have a permanent high water table, soils that have a clay pan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very low rate of water transmission.

Soil borings were performed at various locations across the site by Aztech Environmental and witnessed by the Chazen Companies in January 2018. The logs for the soil borings are included in Appendix L. The soils map for the study area is presented in Appendix G, as Figure 2.

3.3 Watershed Designation

The project site is not located in a restricted watershed identified in Appendix C of GP-0-20-001.

3.4 Receiving Water Bodies

The nearest natural classified water body into which runoff from the project site will discharge is the tributary to the Normans Kill.

The Normans Kill is classified by NYSDEC as a Class B water course, and is not included in the Section 303(d) list of impaired waters found in Appendix E of GP-0-20-001.

3.5 Aquifer Designation

The project site is located over the Albany Pine Bush aquifer. The US EPA has not designated this aquifer as a Sole Source aquifer. This aquifer is listed as a principal supply aquifer in the NYSDEC Technical and Operational Guidance Series (TOGS) 2.1.3 (1980), Primary and Principle Aquifer Determinations, Table 1, 1990; and in the Atlas of Eleven Selected Aquifers in New York, U.S. Geological Survey in cooperation with the NYS Department of Health, 1982.

3.6 Wetlands

A search on the NYSDEC Environmental Resource Mapper on December 17, 2018, determined that no regulated wetlands are located on or in the vicinity of the project site.

3.7 Flood Plains

According to the National Flood Insurance Program Flood Insurance Rate Map (FIRM), Town of Guilderland, New York, Community Panel Number 36001C0178D, the project site lies within Flood Zone X, area determined to be outside the 0.2% annual chance floodplain.

3.8 Listed, Endangered, or Threatened Species

An ecological assessment report entitled "Vegetation Wildlife and Soil Conditions Report, Rapp Road Residential Project" dated August 2018, as prepared by B. Laing Associates, indicates that as the site is currently disturbed and lacks any characteristics significant in Albany Pine Bush habitats, no significant impacts are anticipated as a result of the project. In addition, the project is consistent with the goals and objectives of the Albany Pine Bush 2017 Management Plan. For further information, please refer to the ecological assessment.

3.9 Historic Places

A search on the New York State Cultural Resource Information System (CRIS) database, performed on December 17, 2018, revealed that the property is not located within an archeologically sensitive area, and is not located on or immediately adjacent to a property listed or determined to be eligible for listing on the National or State Registers of Historic Places. A printout of the historic places screening map is presented in Appendix G, as Figure 3. A copy of the NYSOPRHP documentation, in accordance with part I.F.8. of GP-0-20-001, is provided in Appendix G, as Figure 3A.

3.10 Rainfall Data

Rainfall data utilized in the modeling and analysis was obtained from the Cornell University online Extreme Precipitation in New York & New England website (<http://precip.eas.cornell.edu/>). Rainfall data specific to the portion of Albany County under consideration, for various 24-hour storm events, is presented in the following Table:

Table 2: Rainfall Data

Storm Event Return Period	24-Hour Rainfall (Inches)
1-year	2.21
10-year	3.74
100-year	6.34

These values were used to evaluate the pre- and post-development stormwater runoff characteristics.

4.0 CONSTRUCTION SEQUENCE

This project has not received written approval from the Town of Guilderland allowing the disturbance of more than five acres of land at any one time. Therefore, if the Contractor's construction sequence requires the disturbance of more than five acres at any one time, written approval must be obtained from NYSDEC prior to disturbing more than five acres at once.

The "Erosion and Sediment Control Plan" in the accompanying drawings identifies the major construction activities that are the subject of this SWPPP. The order (or sequence) in which the major activities are expected to begin is presented on the accompanying drawings, though each activity will not necessarily be completed before the next begins. In addition, these activities could occur in a different order if necessary to maintain adequate erosion and sediment control. If this is the case, the contractor shall notify the Owner's/Operator's Engineer overseeing the implementation of the SWPPP.

The Contractor will be responsible for implementing the erosion and sediment control measures identified on the plans. The Contractor may designate these tasks to certain subcontractors as they see fit, but the ultimate responsibility for implementing these controls and ensuring their proper function remains with the Contractor.

Refer to the accompanying plans for details and specifications regarding the construction sequencing schedule.

5.0 CONSTRUCTION-PHASE POLLUTION CONTROL

The SWPPP and accompanying plans identify the temporary and permanent erosion and sediment control measures that have been incorporated into the design of this project. These measures will be implemented during construction, to minimize soil erosion and control sediment transport off-site, and after construction, to control the quality and quantity of stormwater runoff from the developed site.

Erosion control measures, designed to minimize soil loss, and sediment control measures, intended to retain eroded soil and prevent it from reaching water bodies or adjoining properties, have been developed in accordance with the following documents:

- NYSDEC SPDES General Permit for Stormwater Discharges From Construction Activity, Permit No. GP-0-20-001 (effective January 29, 2020 through January 28, 2025)
- New York State Standards and Specifications for Erosion and Sediment Control, NYSDEC (November 2016)
- Town of Guilderland General Legislation, Chapter 241 Stormwater Management, Article II Stormwater Management and Erosion and Sediment Control.

The SWPPP and accompanying plans outline the construction scheduling for implementing the erosion and sediment control measures. These documents include limitations on the duration of soil exposure, criteria and specifications for placement and installation of the erosion and sediment control measures, a maintenance schedule, and specifications for the implementation of erosion and sediment control practices and procedures.

Temporary and permanent erosion and sediment control measures that shall be applied during construction generally include:

1. Minimizing soil erosion and sedimentation by stabilization of disturbed areas and by removing sediment from construction site discharges.
2. Preservation of existing vegetation to the greatest extent practical. Following the completion of construction activities in any portion of the site, permanent vegetation shall be established on all exposed soils.
3. Site preparation activities to minimize the area and duration of soil disruption.
4. Establishment of permanent traffic corridors to ensure that "routes of convenience" are avoided.

5.1 Temporary Erosion and Sediment Control Measures

The temporary erosion and sediment control measures described in the following sections are included as part of the construction documents.

5.1.1 Stabilized Construction Entrance

Prior to construction, stabilized construction entrance(s) will be installed, per accompanying plans, to reduce the tracking of sediment onto public roadways.

Construction traffic must enter and exit the site at the stabilized construction entrance(s). The intent is to trap dust and mud that would otherwise be carried off-site by construction traffic.

The entrance(s) shall be maintained in a condition, which will control tracking of sediment onto public rights-of-way or streets. When necessary, additional aggregate will be placed atop the filter fabric to assure the minimum thickness is maintained. All sediment and/or soil spilled, dropped, or washed onto public rights-of-way must be removed immediately. Periodic inspection and needed maintenance shall be provided after each substantial rainfall event.

5.1.2 Dust Control

Water trucks shall be used as needed during construction to reduce dust generated on-site. Dust control must be provided by the Contractor(s) to a degree that is acceptable to the Owner, and in compliance with the applicable local and state dust control requirements.

5.1.3 Temporary Soil Stockpile

Materials, such as topsoil, will be temporarily stockpiled (if necessary) on the site during the construction process. Stockpiles shall be located in an area away from storm drainage, water bodies and/or courses, and will be properly protected from erosion by a surrounding silt fence barrier.

5.1.4 Silt Fencing

Prior to the initiation of and during construction activities, a geotextile filter fabric (or silt fence) will be established downgradient of all disturbed areas. These barriers may extend into non-impact areas to provide adequate protection of adjacent lands.

Clearing and grubbing will be performed only as necessary for the installation of the sediment control barrier. To facilitate effectiveness of the silt fencing, daily inspections and inspections immediately after significant storm events will be performed by the Contractor(s). Maintenance of the fence will be performed as needed.

5.1.5 Temporary Seeding

For areas undergoing clearing, grading, and disturbance as part of construction activities, where work has temporarily ceased, temporary soil stabilization measures must be initiated by the end of the next business day and completed within fourteen (14) days from the date the soil disturbance activity has temporarily ceased.

5.1.6 Filter Fabric Drop Inlet Protection

Install filter fabric or silt fence with wooden stakes at the perimeter of existing or proposed catch basins located in lawn areas, to prevent sediment from entering the catch basins and storm sewer system. Remove sediment accumulation and repair or replace fabric as necessary to ensure proper function.

5.1.7 Dewatering Operations

Dewatering will be used to intercept sediment-laden stormwater or pumped groundwater and allow it to settle out of the pumped discharge prior to being discharged from the site. Water from dewatering operations shall be treated to eliminate the discharge of sediment and other pollutants. Water resulting from dewatering operations shall be directed to temporary sediment traps or dewatering devices. Temporary sediment traps and dewatering bags will be provided, installed, and maintained at downgradient locations to control sediment deposits to downstream surfaces.

storm events will be performed by the Contractor(s) and maintenance will be performed as needed.

5.2 Permanent Erosion and Sediment Control Measures

The permanent erosion and sediment control measures described in the following sections are included as part of the construction documents.

5.2.1 Establishment of Permanent Vegetation

Disturbed areas that will be vegetated must be seeded in accordance with the contract documents. The type of seed, mulch, and maintenance measures as described in the contract documents shall also be followed.

Final site stabilization is achieved when all soil-disturbing activities at the site have been completed and a uniform, perennial vegetative cover with a density of 80 percent has been established or equivalent stabilization measures (such as the use of mulches or geotextiles) have been employed on all unpaved areas and areas not covered by permanent structures.

5.3 Other Pollutant Controls

Other necessary pollutant controls are listed below:

5.3.1 Solid and Liquid Waste Disposal

No solid or liquid waste materials, including building materials, shall be discharged from the site with stormwater. All solid waste, including disposable materials incidental to any construction activities, must be collected and placed in containers. The containers shall be emptied periodically by a licensed trash disposal service and hauled away from the site.

Substances that have the potential for polluting surface and/or groundwater must be controlled by whatever means necessary in order to ensure that they do not discharge from the site. As an example, special care must be exercised during equipment fueling and servicing operations. If a spill occurs, it must be contained and disposed of so that it will not flow from the site or enter groundwater, even if this requires removal, treatment, and disposal of soil. In this regard, potentially polluting substances should be handled in a manner consistent with the impact they represent.

5.3.2 Sanitary Facilities

Temporary sanitary facilities will be provided by the Contractor throughout the construction phase. They must be utilized by all construction personnel and will be serviced by a licensed commercial Contractor. These facilities must comply with state and local sanitary or septic system regulations.

5.3.3 Water Source

Non-stormwater components of site discharge must be clean water. Water used for construction, which discharges from the site, must originate from a public water supply or private well approved by the Health Department. Water used for construction that does not originate from an approved public supply must not discharge from the site; such water can be retained in temporary ponds/sediment traps until it infiltrates and/or evaporates.

5.4 Construction Housekeeping Practices

During the construction phase, the Contractor(s) will implement the following measures:

5.4.1 Material Stockpiles

Material resulting from clearing and grubbing operations that will be stockpiled on-site, must be adequately protected with downgradient erosion and sediment controls.

5.4.2 Equipment Cleaning and Maintenance

The Contractor(s) will designate areas for equipment cleaning, maintenance, and repair. The Contractor(s) and subcontractor(s) will utilize those areas. The areas will be protected by a temporary perimeter berm.

5.4.3 Detergents

The use of detergents for large-scale washing is prohibited (i.e., vehicles, buildings, pavement surfaces, etc.)

5.4.4 Spill Prevention and Response

A Spill Prevention and Response Plan shall be developed for the site by the Contractor(s). The plan shall detail the steps required in the event of an accidental spill and shall identify contact names and phone numbers of people and agencies that must be notified.

The plan shall include Material Safety Data Sheets (MSDS) for all materials to be stored on-site. All workers on-site will be required to be trained on safe handling and spill prevention procedures for all materials used during construction. Regular tailgate safety meetings shall be held and all workers that are expected on the site during the week shall be required to attend.

5.4.5 Concrete Wash Areas

Concrete trucks will be allowed to wash out or discharge surplus concrete or drum wash water on the site, but only in specifically designated diked and impervious washout areas, which have been prepared to prevent contact between the concrete wash and stormwater. Waste generated from concrete wash water shall not be allowed to flow into drainage ways, inlets, receiving waters, or highway right of ways, or any location other than the designated concrete wash areas. Proper signage designating the "Concrete Wash Areas" shall be placed near the facility. Concrete wash areas shall be located at minimum 100 linear feet from drainage ways, inlets, and surface waters.

The hardened residue from the concrete wash areas will be disposed of in the same manner as other non-hazardous construction waste materials. Maintenance of the wash area is to include removal of hardened concrete. Facility shall have sufficient volume to contain all the concrete waste resulting from washout and a minimum freeboard of 12 inches. Facility shall not be filled beyond 95% capacity and shall be cleaned out once 75% full unless a new facility is constructed. The Contractor will be responsible for seeing that these procedures are followed.

Sawcut Portland Cement Concrete (PCC) slurry shall not be allowed to enter drainage ways, inlets, and/or surface waters. Sawcut residue should not be left on the surface of pavement or be allowed to flow over and off pavement.

The Project may require the use of multiple concrete wash areas. All concrete wash areas will be located in an area where the likelihood of the area contributing to stormwater discharges is negligible. If required, additional BMPs must be implemented to prevent concrete wastes from contributing to stormwater discharges.

5.4.6 Material Storage

Construction materials shall be stored in a dedicated staging area. The staging area shall be located in an area that prevents negative impacts of construction materials on stormwater quality.

Chemicals, paints, solvents, fertilizers, and other toxic material must be stored in waterproof containers. Except during application, the contents must be kept in trucks or within storage facilities. Runoff containing such material must be collected, removed from the site, treated, and disposed of at an approved solid waste or chemical disposal facility.

6.0 STORMWATER MANAGEMENT PLANNING

Chapter 3 of the Design Manual outlines a six-step planning process for site planning and selection of stormwater management practices that must be implemented for both new development and redevelopment projects. This process is intended to develop a design that maintains pre-construction hydrologic conditions through the application of environmentally sound development principles, as well as treatment and control of runoff discharges from the site. The following sections outline the step-by-step process and how it has been applied to this project.

The goals of this Stormwater Management Plan are to analyze the peak rate of runoff under pre- and post-development conditions, to maintain the pre-development rate of runoff in order to minimize impacts to adjacent or downstream properties, and to minimize the impact to the quality of runoff exiting the site.

The Design Manual provides both water quality and water quantity objectives to be met by projects requiring a "Full SWPPP". These objectives will be met by applying stormwater control practices to limit peak runoff rates and improve the quality of runoff leaving the developed site.

6.1 Step 1 – Site Planning

During the Site Planning process, the project site is evaluated for implementation of the green infrastructure planning measures identified in Table 3.1 of the Design Manual, in order to preserve natural resources and reduce impervious cover. Table A of Appendix K provides a description of each green infrastructure planning measure, along with a project specific evaluation.

6.2 Step 2 - Determine Water Quality Treatment Volume (WQv)

Stormwater runoff from impervious surfaces is recognized as a significant contributor of pollution that can adversely affect the quality of receiving water bodies. Therefore, treatment of stormwater runoff is important since most runoff related water quality contaminants are transported from land, particularly the impervious surfaces, during the initial stages of storm events.

6.2.1 NYSDEC Requirements for New Development

The Design Manual requires that water quality treatment be provided for the initial flush of runoff from every storm. The NYSDEC refers to the amount of runoff to be treated as the "Water Quality Volume" (WQv). Section 4.2 of the Design Manual defines the Water Quality Volume as follows:

$$WQv = \frac{[(P)(R_v)(A)]}{12}$$

Where: P = 90% Rainfall Event Number
 R_v = $0.05 + 0.009(I)$, minimum $R_v = 0.2$
 I = Impervious Cover (Percent)
 A = Contributing Area in Acres

This definition ensures that, all other things being equal, the Water Quality Volume will increase along with the impervious cover percentage.

6.2.2 Methodology

The Water Quality Volume equation has been applied to the drainage area tributary to each of the stormwater quality practices proposed for this project. The practices have been sized to accommodate the Water Quality Volume, as per the performance criteria presented in Chapter 6 of the Design Manual. Water quality volume calculations for each of the proposed practices are presented in Table B of Appendix K.

6.3 Step 3 – Apply Runoff Reduction Techniques and Standard SMPs with RRv Capacity to Reduce Total WQv

Land use change and development in the watershed increases the volume of runoff. As such, reductions in the amount of runoff from new development, accomplished through the implementation of a stormwater management plan for the site, will play an important role in the success or failure of the watershed-wide stormwater management plan. Runoff reduction techniques can be applied to manage, reduce, and treat stormwater, while maintaining and restoring natural hydrology through infiltration, evapo-transpiration, and the capture and reuse of stormwater. Volume reduction techniques by themselves typically are not sufficient to provide adequate attenuation of stormwater runoff, but they can decrease the size of the peak runoff rate reduction facilities.

6.3.1 NYSDEC Requirements for New Development

The Design Manual states that runoff reduction shall be achieved through infiltration, groundwater recharge, reuse, recycle, and/or evaporation/evapotranspiration of 100-percent of the post-development water quality volume to replicate pre-development hydrology. Runoff control techniques provide treatment in a distributed manner before runoff reaches the collection system, by maintaining pre-construction infiltration, peak runoff flow, discharge volume, as well as minimizing concentrated flow. This can be accomplished by applying a combination of Runoff Reduction Techniques, standard Stormwater Management Practices (SMPs) with RRv capacity, and good operation and maintenance.

6.3.2 Methodology

In order to reduce the required WQv, a site specific evaluation must be performed to determine the most practical means of reducing runoff volume. The Design Manual strongly encourages implementation of a combination of RR techniques and standard SMPs with RRv capacity. The following Table demonstrates a summary of the RRv practices being applied, and both the water quality and runoff reduction volumes they provide. The RR Technique(s) have been designed in accordance with Chapter 5 of the Design Manual. The standard SMP(s) with RRv capacity have been designed in accordance with Chapter 6 of the Design Manual. Refer to the contract drawings for practice dimensions, material specifications, and installation details. Practice specific calculations are presented in Table E of Appendix K.

Table 3: Summary of RR Techniques and Standard SMPs with RRv Capacity

RR Technique or Standard SMP with RRV Capacity	NYSDEC Design Variant	Pretreatment Volume Required (% of WQv)	Pretreatment Volume Provided (CF)	WQv Required (CF)	WQv Provided (CF)	RRv Capacity	RRv Provided (CF)
Infiltration Basin	I-2	100	10,410	10,410	0	100%	10,410
Underground Infiltration System	I-4	100	8,320	8,320	0	100%	8,320
Bioretention (without underdrain)	F-5	25	3,960	3,960	0	100%	3,960
Total WQv Provided (CF)							22,690
Total RRV Provided (CF)							22,690
Total WQv Provided (CF)							0

6.3.3 Application of Standard Stormwater Management Practices (SMPs) with RRV Capacity

The standard SMPs with RRV capacity, described in the following section, have been incorporated into the stormwater management plan for this project. Design calculations for each measure have been included in Table E of Appendix K.

6.3.3.1 Infiltration Basin (I-2)

Infiltration practices reduce runoff volume, remove fine sediment and associated pollutants, recharge groundwater, and provide partial attenuation of peak flows for storm events equal to or less than the design storm. Infiltration practices are appropriate for small drainage areas, but can also be used for larger multiple lot applications, in contrast to rain gardens and dry wells, which are primarily intended for single lots.

Infiltration basins are stormwater impoundments designed to capture and infiltrate the water quality volume over several days, but do not retain a permanent pool. Infiltration basins can be designed as off-line devices to infiltrate the water quality volume and bypass larger flows to downstream flood control facilities or as combined infiltration/flood control facilities by providing detention above the infiltration zone. The bottom of an infiltration basin typically contains vegetation to increase the infiltration capacity of the basin, allow for vegetative uptake, and reduce soil erosion and scouring of the basin.

Soil testing data consisting of deep test pits and falling head permeability tests in support of the design of the proposed infiltration basin(s) has been provided on the accompanying plans.

The Infiltration Basin(s) (I-2) was/were designed according to the criteria set forth in Section 6.3 "Stormwater Infiltration" of the Design Manual.

6.3.3.2 Underground Infiltration System (I-4)

Most proprietary underground infiltration systems operate similarly to traditional infiltration basins (NYSDEC design variant I-2). These practices reduce runoff volume, remove fine sediment and associated pollutants, recharge groundwater, and provide partial attenuation of peak flows for storm events equal to or less than the design storm. Infiltration practices are appropriate for small drainage

areas, but can also be used for larger multiple lot applications, in contrast to rain gardens and dry wells, which are primarily intended for single lots.

Proprietary underground infiltration systems are designed to capture and infiltrate the water quality volume, but do not retain a permanent pool. These systems are typically designed to infiltrate the water quality volume as well as to provide detention above the infiltration zone to attenuate peak volumes of larger storm events to meet flood control requirements.

Soil testing data consisting of deep test pits and falling head permeability tests in support of the design of the proposed underground infiltration system(s) has been provided on the accompanying plans.

6.3.3.3 Bioretention (F-5)

Bioretention filters are shallow landscaped depressions commonly located in parking lot islands or within small pockets in residential areas that receive stormwater runoff. Stormwater flows into the bioretention area, ponds on the surface, and is gradually infiltrated into the soil bed. Pollutants are removed by a number of processes, such as adsorption, filtration, volatilization, ion exchange, and decomposition. Filtered runoff can either be allowed to infiltrate into the surrounding soil, functioning as an infiltration basin or rainwater garden or collected by an under drain system and discharged to the storm sewer system or directly to receiving waters, functioning like a surface sand filter. Runoff from larger storms is generally diverted past the bioretention area to the stormwater collection and conveyance system.

The Bioretention filter (F-5) was designed according to the criteria set forth in Section 6.4 "Stormwater Filtering Systems" of the Design Manual.

6.3.4 RRv Performance Summary

According to Section 3.6 of the Design Manual, "If the RRv calculated in this step is greater than or equal to the WQv calculated in Step 2, the designer has met the RRv requirement and may proceed to Step 6." A summary of the RRv provided is presented in the following table:

Table 4: Summary of RRv Provided

RRv Required = WQv Required (CF)	RRv Provided (CF)	% RRv Provided
22,690	22,690	100

As indicated in the above table, the RRv provided is greater than the RRv required for the project site. As such, the design can proceed to Step 6.

6.4 Step 6 - Apply Volume and Peak Rate Control

This report presents the pre-development and post-development features and conditions associated with the rate of surface water runoff within the study area. For both cases, the drainage patterns, drainage structures, soil types, and ground cover types are considered in this study.

6.4.1 NYSDEC Requirements for New Development

Chapter 4 of the Design Manual requires that projects meet three separate stormwater quantity criteria:

1. The Channel Protection (CPv) requirement is designed to protect stream channels from erosion. This is accomplished by providing 24 hours of extended detention for the 1-year, 24-hour storm event. The Manual defines the CPv detention time as the center of mass detention time through each stormwater management practice.
2. The Overbank Flood Control (Qp) requirement is designed to prevent an increase in the frequency and magnitude of flow events that exceed the bank-full capacity of a channel, and therefore must spill over into the floodplain. This is accomplished by providing detention storage to ensure that, at each design point, the post-development 10-year 24-hour peak discharge rate does not exceed the corresponding pre-development rate.
3. The Extreme Flood Control (Qf) requirement is designed to prevent the increased risk of flood damage from large storm events, to maintain the boundaries of the pre-development 100-year floodplain, and to protect the physical integrity of stormwater management practices. This is accomplished by providing detention storage to ensure that, at each design point, the post-development 100-year 24-hour peak discharge rate does not exceed the corresponding pre-development rate.

6.4.2 Methodology

In order to demonstrate that the NYSDEC detention requirements are being met, the Design Manual requires that a hydrologic and hydraulic analysis of the pre- and post-development conditions be performed using the Natural Resources Conservation Service Technical Release 20 (TR-20) and Technical Release 55 (TR-55) methodologies. HydroCAD, developed by HydroCAD Software Solutions LLC of Tamworth, New Hampshire, is a Computer-Aided-Design (CAD) program for analyzing the hydrologic and hydraulic characteristics of a given watershed and associated stormwater management facilities. HydroCAD uses the TR-20 algorithms and TR-55 methods to create and route runoff hydrographs.

HydroCAD has the capability of computing hydrographs (which represent discharge rates characteristic of specified watershed conditions, precipitation, and geologic factors) combining hydrographs and routing flows through pipes, streams and ponds. HydroCAD can also calculate the center of mass detention time for various hydraulic features. Documentation for HydroCAD can be found on their website: <http://www.hydrocad.net/>.

For this analysis, the watershed and drainage system was broken down into a network consisting of two types of components as described below:

1. Subcatchment: A relatively homogeneous area of land, which produces a volume and rate of runoff unique to that area.
2. Pond: Natural or man-made impoundment, which temporarily stores stormwater runoff and empties in a manner determined by its geometry and the hydraulic structure located at its outlets.

Subcatchments, reaches, and ponds are represented by hexagons, squares, and triangles, respectively, on the watershed routing diagrams provided with the computations included in Appendix I and Appendix J.

The analysis of hydrologic and hydraulic conditions and proposed stormwater management facilities, servicing the study area, was performed by dividing the tributary watershed into relatively homogeneous subcatchments. The separation of the watershed into subcatchments was dictated by watershed conditions, methods of collection, conveyance, and points of discharge. Watershed characteristics for each subcatchment were then assessed from United States Geological Service (USGS) 7.5-minute topographic maps, aerial photographs, a topographical survey, soil surveys, site investigations, and land use maps.

Proposed stormwater management facilities were designed and evaluated in accordance with the Design Manual and local regulatory requirements. The hydrologic and hydraulic analysis considered the SCS, Type II 24-hour storm events identified in Table 8.

Table 5: Design Events

Facility	24-hour Storm Event
Storm Sewer	10-year
Flood Conditions	100-year

6.4.3 Description of Design Points

The study area consists of an overall watershed that encompasses approximately 16.259 acres and partially contains the 19.68 acre project site. The overall watershed was broken down into smaller watersheds, or subcatchments, to allow for analysis of runoff conditions at several locations throughout the study area. Each of these locations was defined as a Design Point (DP) in order to compare the effects resulting from stormwater management facilities proposed as part of the project. Descriptions of each of the selected design points are provided below.

- Design Point 1: The southern portion of the site discharges to a low area located at the southern edge of site, at the property line and Westmere Terrace. Runoff flows to one of two catch basins in Westmere Terrace, entering the Town of Guilderland storm sewer system.
- Design Point 2: On-site runoff flows east overland, reaching an existing flared end section, discharging into an existing 24" HDPE storm line. The storm line is part of Town of Guilderland storm sewer system and flows east underneath Rapp Road.

6.4.4 Pre-development Watershed Conditions

The pre-development project site is covered predominantly by woods and grass, with areas of compacted dirt and tree removal from previous disturbance. Analysis of pre-development conditions considered existing drainage patterns, soil types, ground cover, and topography. The Pre-Development Watershed Delineation Map has been provided in Appendix G, as Figure 5.

The results of the computer modeling used to analyze the overall watershed under pre-development conditions are presented in Appendix I. A summary of the pre-development watershed runoff rates at each design point is presented in Table 9.

6.4.5 Post-development Watershed Conditions

The post-development project site is covered predominantly by grass, buildings and pavement. The analysis of post-development conditions considered existing drainage patterns, soil types, ground cover to remain, planned site development, site grading and, stormwater management facilities

proposed as part of site improvements. The Post-Development Watershed Delineation Map has been provided in Appendix G, as Figure 5.

The results of the computer modeling used to analyze the overall watershed under post-development conditions are presented in Appendix J. A summary of the post-development watershed runoff rates at each design point is presented in Table 9.

There are numerous locations and methods for providing controls of off-site discharge of stormwater from the project site. Each has been designed to provide the above quantity controls by attenuating stormwater runoff and releasing runoff to off-site locations at a rate equal to or less than that which existed prior to development of the site. Each device is detailed on the accompanying plans.

6.4.6 Performance Summary

A comparison of the pre- and post-development watershed conditions was performed for all design points and storm events evaluated herein. For all design points and design storms, this comparison demonstrates that the peak rate of runoff will not be increased. Therefore, the project will not have a significant adverse impact on the adjacent or downstream properties or receiving water courses.

The results of the computer modeling used to analyze the pre- and post-development watersheds are presented in Appendix I and Appendix J, respectively. The following Table summarizes the results of this analysis.

Table 6: Summary of Pre- and Post-Development Peak Discharge Rates

Pre- vs. Post-Development Discharge Rate (cfs)						
Design Point (DP)	1-year 24-hour storm event		10-year 24-hour storm event		100-year 24-hour storm event	
	Pre	Post	Pre	Post	Pre	Post
1	0.01	0.00	0.74	0.24	4.57	2.35
2	4.24	4.23	16.83	15.32	44.20	42.77
Totals	4.25	4.23	17.57	15.56	48.77	45.12

7.0 INSPECTIONS, MAINTENANCE, AND REPORTING

7.1 Inspection and Maintenance Requirements

7.1.1 Pre-Construction Inspection and Certification

Prior to the commencement of construction, the Qualified Inspector/Qualified Professional shall conduct an assessment of the site and certify that the appropriate erosion and sediment control measures have been adequately installed and implemented. The Contractor shall contact the Qualified Inspector/Qualified Professional once the erosion and sediment control measures have been installed.

7.1.2 Construction Phase Inspections and Maintenance

A Qualified Inspector/Qualified Professional, as defined in Appendix A of the General Permit GP-0-20-001, shall conduct regular site inspections between the time this SWPPP is implemented and final site stabilization. Site inspections shall occur at an interval of at least once every seven (7) calendar days.

The purpose of site inspections is to assess performance of pollutant controls. Based on these inspections, the Qualified Inspector/Qualified Professional will decide whether it is necessary to modify this SWPPP, add or relocate sediment barriers, or whatever else may be needed in order to prevent pollutants from leaving the site via stormwater runoff. The general contractor has the duty to cause pollutant control measures to be repaired, modified, maintained, supplemented, or whatever else is necessary in order to achieve effective pollutant control.

Examples of particular items to evaluate during site inspections are listed below. This list is not intended to be comprehensive. During each inspection the inspector must evaluate overall pollutant control system performance as well as particular details of individual system components. Additional factors should be considered as appropriate to the circumstances.

1. Locations where vehicles enter and exit the site must be inspected for evidence of off-site sediment tracking. A stabilized construction entrance will be constructed where vehicles enter and exit. This entrance will be maintained or supplemented as necessary to prevent sediment from leaving the site on vehicles.
2. Sediment barriers must be inspected and, if necessary, they must be enlarged or cleaned in order to provide additional capacity. All material from behind sediment barriers will be stockpiled on the up slope side. Additional sediment barriers must be constructed as needed.
3. Inspections will evaluate disturbed areas and areas used for storing materials that are exposed to rainfall for evidence of, or the potential for, pollutants entering the drainage system. If necessary, the materials must be covered or original covers must be repaired or supplemented. Also, protective berms must be constructed, if needed, in order to contain runoff from material storage areas.
4. Grassed areas will be inspected to confirm that a healthy stand of grass is maintained. The site has achieved final stabilization once all areas are covered with building foundation or pavement, or have a stand of grass with at least 80 percent density. The density of 80 percent or greater must be maintained to be considered as stabilized. Areas must be watered, fertilized, and reseeded as needed to achieve this goal.

5. All discharge points must be inspected to determine whether erosion control measures are effective in preventing significant impacts to receiving waters.

The inspection reports must be completed entirely and additional remarks should be included if needed to fully describe a situation. An important aspect of the inspection report is the description of additional measures that need to be taken to enhance plan effectiveness. The inspection report must identify whether the site was in compliance with the SWPPP at the time of inspection and specifically identify all incidents of non-compliance.

Within one (1) business day of the completion of an inspection, the *Qualified Inspector/Qualified Professional* shall notify the Owner/Operator and appropriate contractor or subcontractor of any corrective actions that need to be taken. The contractor or subcontractor shall begin implementing the corrective actions within one (1) business day of the notification and shall complete the corrective actions in a reasonable time frame.

In addition to the inspections performed by the *Qualified Inspector/Qualified Professional*, the Contractor shall perform routine inspections that include a visual check of all erosion and sediment control measures. All inspections and maintenance shall be performed in accordance with the inspection and maintenance schedule provided on the accompanying plans. Sediment removed from erosion and sediment control measures will be exported from the site, stockpiled for later use, or used immediately for general non-structural fill.

It is the responsibility of the general contractor to assure the adequacy of site pollutant discharge controls. Actual physical site conditions or contractor practices could make it necessary to install more structural controls than are shown on the accompanying plans. (For example, localized concentrations of runoff could make it necessary to install additional sediment barriers, sediment traps, etc.) Assessing the need for additional controls and implementing them or adjusting existing controls will be a continuing aspect of this SWPPP until the site achieves final stabilization.

7.1.3 Temporary Suspension of Construction Activities

For construction sites where soil disturbance activities have been temporarily suspended (e.g. Winter shutdown) and temporary stabilization measures have been applied to all disturbed areas, the frequency of *Qualified Inspector/Qualified Professional* inspections can be reduced to once every 30 calendar days. Prior to reducing the frequency of inspections, the Owner/Operator shall notify the NYSDEC Region 4 stormwater contact person and the Town of Guilderland in writing.

7.1.4 Partial Project Completion

For construction sites where soil disturbance activities have been shut down with partial project completion, all areas disturbed as of the project shutdown date have achieved final stabilization, and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational, the inspections by the *Qualified Inspector/Qualified Professional* can stop. Prior to the shutdown, the Owner/Operator shall notify the NYSDEC Region 4 stormwater contact person and the Town of Guilderland in writing.

If soil disturbance activities have not resumed within two years from the date of shutdown, a Notice of Termination (NOT) shall be properly completed and submitted to the NYSDEC.

7.1.5 Post-Construction Inspections and Maintenance

Inspections and maintenance of final stabilization measures and post-construction stormwater management practices shall be performed in accordance with Appendix F, once all disturbed areas are stabilized and all stormwater management systems are in place and operable.

7.2 Reporting Requirements

7.2.1 Inspection and Maintenance Reports

Inspection/maintenance reports shall be prepared prior to and during construction in accordance with the schedule outlined herein and in the SPDES General Permit GP-0-20-001 Part IV.C. The reports shall be prepared to identify and document the maintenance of the erosion and sediment control measures. A sample inspection form is provided in Appendix D.

Specifically, each inspection shall record the following information:

1. Date and time of inspection.
2. Name and title of person(s) performing inspection.
3. A description of the weather and soil conditions (e.g. dry, wet, saturated) at the time of the inspection.
4. A description of the condition of the runoff at all points of discharge from the construction site. This shall include identification of any discharges of sediment from the construction site. Include discharges from conveyance systems (i.e. pipes, culverts, ditches, etc.) and overland flow.
5. A description of the condition of all natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the construction site which receive runoff from disturbed areas. This shall include identification of any discharges of sediment to the surface water body.
6. Identification of all erosion and sediment control practices and pollution prevention measures that need repair or maintenance.
7. Identification of all erosion and sediment control practices and pollution prevention measures that were not installed properly or are not functioning as designed and need to be reinstalled or replaced.
8. Description and sketch of areas with active soil disturbance activity, areas that have been disturbed but are inactive at the time of the inspection, and areas that have been stabilized (temporary and/or final) since the last inspection.
9. Indication of the current phase of construction of all post-construction stormwater management practices and identification of all construction that is not in conformance with the SWPPP and technical standards.
10. Corrective action(s) that must be taken to install, repair, replace or maintain erosion and sediment control practices and pollution prevention measures; and to correct deficiencies identified with the construction of the post-construction stormwater management practice(s).

11. Identification and status of all corrective actions that were required by previous inspection.
12. Color photographs, with date stamp, that clearly show the condition of all practices that have been identified as needing corrective actions. The *Qualified Inspector/Qualified Professional* shall attach paper color copies of the digital photographs to the inspection report being maintained onsite within seven (7) calendar days of the date of the inspection. The *Qualified Inspector/Qualified Professional* shall also take digital photographs, with date stamp, that clearly show the condition of the practice(s) after the corrective action has been completed. The *Qualified Inspector/Qualified Professional* shall attach the paper color copies of the digital photographs to the inspection report that documents the completion of the corrective action work within seven (7) calendar days of that inspection.

All inspection reports shall be signed by the *Qualified Inspector/Qualified Professional*. Pursuant to Part II.C.2 of GP-0-20-001, the inspection reports shall be maintained on site with the SWPPP.

7.2.2 Site Log Book

The Owner/Operator shall retain a copy of the SWPPP required by GP-0-20-001 at the construction site from the date of initiation of construction activities to the date of final stabilization.

During construction, the Owner's/Operator's Engineer shall maintain a record of all SWPPP inspection reports at the site in the Site Log Book. The Site Log Book shall be maintained on-site and made available to the permitting authority, if necessary.

7.2.3 Post Construction Records and Archiving

Following construction, the Owner/Operator shall retain copies of the SWPPP, the complete construction Site Log Book, and records of all data used to complete the NOI to be covered by this permit, for a period of at least five years from the date that the site is finally stabilized. This period may be extended by the NYSDEC, at its sole discretion, at any time upon written notification.

Records shall be maintained of all post construction inspections and maintenance work performed in accordance with the requirements outlined in Appendix F.

Appendix A:
NYSDEC SPDES General Permit GP-0-20-001

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 NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION SPDES GENERAL PERMIT FOR STORMWATER DISCHARGES From CONSTRUCTION ACTIVITY Permit No. GP-0-20-001 Issued Pursuant to Article 17, Titles 7, 8 and Article 70 of the Environmental Conservation Law Effective Date: January 29, 2020 Expiration Date: January 28, 2025 John J. Ferguson Chief Permit Administrator  Authorized Signature Date: 1-23-20 Address: NYS DEC Division of Environmental Permits 625 Broadway, 4th Floor Albany, N.Y. 12233-1750	PREFACE Pursuant to Section 402 of the Clean Water Act ("CWA"), stormwater discharges from certain construction activities are unlawful unless they are authorized by a National Pollutant Discharge Elimination System ("NPDES") permit or by a state permit program. New York administers the approved State Pollutant Discharge Elimination System (SPDES) program with permits issued in accordance with the New York State Environmental Conservation Law (ECL) Article 17, Titles 7, 8 and Article 70. An owner or operator of a construction activity that is eligible for coverage under this permit must obtain coverage prior to the commencement of construction activity. Activities that fit the definition of "construction activity" as defined under 40 CFR 122.26(b)(14)(x), (15)(i), and (15)(ii), constitute construction of a point source and therefore, pursuant to ECL section 17-0505 and 17-0701, the owner or operator must have coverage under a SPDES permit prior to commencing construction activity. The owner or operator cannot wait until there is an actual discharge from the construction site to obtain permit coverage. *Note: The italicized words/phrases within this permit are defined in Appendix A.
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**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
SPDES GENERAL PERMIT FOR STORMWATER DISCHARGES FROM
CONSTRUCTION ACTIVITIES**

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(Part 1) Part 1. PERMIT COVERAGE AND LIMITATIONS A. Permit Application This permit authorizes stormwater discharges to surface waters of the State from the following construction activities identified within 40 CFR Parts 122.26(b)(14)(x), 122.26(b)(15)(i) and 122.26(b)(15)(ii), provided all of the eligibility provisions of the permit are met: 1. <i>Construction activities</i> involving soil disturbances of one (1) or more acres, including disturbances of less than one acre that are part of a <i>larger common plan of development or sale</i> that will ultimately disturb one or more acres of land; excluding <i>routine maintenance activity</i> that is performed to maintain the original line and grade, hydraulic capacity or original purpose of a facility; 2. <i>Construction activities</i> involving soil disturbances of less than one (1) acre where the Department has determined that a SPDES permit is required for stormwater discharges based on the potential for contribution to a violation of a <i>water quality standard</i> or for significant contribution of <i>pollutants</i> to <i>surface waters of the State</i>; 3. <i>Construction activities</i> located in the watershed(s) identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land. B. Effluent Limitations Applicable to Discharges from Construction Activities Discharges authorized by this permit must achieve, at a minimum, the effluent limitations in Part 1.B.1. (a) – (f) of this permit. These limitations represent the degree of effluent reduction attainable by the application of best practicable technology currently available. 1. Erosion and Sediment Control Requirements - The owner or operator must select, design, install, implement and maintain control measures to <i>minimize the discharge of pollutants</i> and prevent a violation of the <i>water quality standards</i>. The selection, design, installation, implementation, and maintenance of these control measures must meet the non-numeric effluent limitations in Part 1.B.1.(a) – (f) of this permit and be in accordance with the New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016, using sound engineering judgment. Where control measures are not designed in conformance with the design criteria included in the technical standard, the owner or operator must include in the Stormwater Pollution Prevention Plan ("SWPPP") the reason(s) for the	(Part 1.B.1) deviation or alternative design and provide information which demonstrates that the deviation or alternative design is <i>equivalent</i> to the technical standard. a. Erosion and Sediment Controls. Design, install and maintain effective erosion and sediment controls to <i>minimize the discharge of pollutants</i> and prevent a violation of the <i>water quality standards</i>. At a minimum, such controls must be designed, installed and maintained to: (i) <i>Minimize</i> soil erosion through application of runoff control and soil stabilization control measure to <i>minimize pollutant discharges</i>; (ii) Control stormwater discharges, including both peak flowrates and total stormwater volume, to <i>minimize</i> channel and streambank erosion and scour in the immediate vicinity of the <i>discharge points</i>; (iii) <i>Minimize</i> the amount of soil exposed during <i>construction activity</i>; (iv) <i>Minimize</i> the disturbance of <i>steep slopes</i>; (v) <i>Minimize</i> sediment <i>discharges</i> from the site; (vi) Provide and maintain <i>natural buffers</i> around surface waters, direct stormwater to vegetated areas and maximize stormwater infiltration to reduce <i>pollutant discharges</i>, unless <i>infeasible</i>; (vii) <i>Minimize</i> soil compaction. Minimizing soil compaction is not required where the intended function of a specific area of the site dictates that it be compacted; (viii) Unless <i>infeasible</i>, preserve a sufficient amount of topsoil to complete soil restoration and establish a uniform, dense vegetative cover; and (ix) <i>Minimize</i> dust. On areas of exposed soil, <i>minimize</i> dust through the appropriate application of water or other dust suppression techniques to control the generation of pollutants that could be discharged from the site. b. Soil Stabilization. In areas where soil disturbance activity has temporarily or permanently ceased, the application of soil stabilization measures must be initiated by the end of the next business day and completed within fourteen (14) days from the date the current soil disturbance activity ceased. For construction sites that <i>directly discharge</i> to one of the 303(d) segments
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(Part 1B.1.b) listed in Appendix E or is located in one of the watersheds listed in Appendix C, the application of soil stabilization measures must be initiated by the end of the next business day and completed within seven (7) days from the date the current soil disturbance activity ceased. See Appendix A for definition of <i>Temporarily Ceased</i>. c. Dewatering. <i>Discharges</i> from dewatering activities, including discharges from dewatering of trenches and excavations, must be managed by appropriate control measures. d. Pollution Prevention Measures. Design, install, implement, and maintain effective pollution prevention measures to <i>minimize the discharge of pollutants</i> and prevent a violation of the water quality standards. At a minimum, such measures must be designed, installed, implemented and maintained to: (i) <i>Minimize the discharge of pollutants</i> from equipment and vehicle washing, wheel wash water, and other wash waters. This applies to washing operations that use clean water only. Soaps, detergents and solvents cannot be used. (ii) <i>Minimize</i> the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste, hazardous and toxic waste, and other materials present on the site to precipitation and to stormwater. Minimization of exposure is not required in cases where the exposure to precipitation and to stormwater will not result in a <i>discharge of pollutants</i>, or where exposure of a specific material or product poses little risk of stormwater contamination (such as final products and materials intended for outdoor use) ; and (iii) Prevent the <i>discharge of pollutants</i> from spills and leaks and implement chemical spill and leak prevention and response procedures. e. Prohibited Discharges. The following <i>discharges</i> are prohibited: (i) Wastewater from washout of concrete; (ii) Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials;	(Part 1B.1.a.iii) (iii) Fuels, oils, or other <i>pollutants</i> used in vehicle and equipment operation and maintenance; (iv) Soaps or solvents used in vehicle and equipment washing; and (v) Toxic or hazardous substances from a spill or other release. f. Surface Outlets. When discharging from basins and impoundments, the outlets shall be designed, constructed and maintained in such a manner that sediment does not leave the basin or impoundment and that erosion at or below the outlet does not occur. C. Post-construction Stormwater Management Practice Requirements 1. The owner or operator of a construction activity that requires post-construction stormwater management practices pursuant to Part III.C. of this permit must select, design, install, and maintain the practices to meet the <i>performance criteria</i> in the New York State Stormwater Management Design Manual ("Design Manual"), dated January 2015, using sound engineering judgment. Where post-construction stormwater management practices ("SMPs") are not designed in conformance with the <i>performance criteria</i> in the Design Manual, the owner or operator must include in the SWPPP the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is <i>equivalent</i> to the technical standard. 2. The owner or operator of a construction activity that requires post-construction stormwater management practices pursuant to Part III.C. of this permit must design the practices to meet the applicable <i>sizing criteria</i> in Part I.C.2.a., b., c. or d. of this permit. a. Sizing Criteria for New Development (i) Runoff Reduction Volume ("RRV"). Reduce the total Water Quality Volume ("WQV") by application of RR techniques and standard SMPs with RRV capacity. The total WQV shall be calculated in accordance with the criteria in Section 4.2 of the Design Manual. (ii) Minimum RRV and Treatment of Remaining Total WQV. Construction activities that cannot meet the criteria in Part I.C.2.a.(i) of this permit due to site limitations shall direct runoff from all newly constructed impervious areas to a RR technique or standard SMP with RRV capacity unless infeasible. The specific site limitations that prevent the reduction of 100% of the WQV shall be documented in the SWPPP.
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(Part 1C.2.a.ii) For each impervious area that is not directed to a RR technique or standard SMP with RRV capacity, the SWPPP must include documentation which demonstrates that all options were considered and for each option explains why it is considered infeasible. In no case shall the runoff reduction achieved from the newly constructed impervious areas be less than the Minimum RRV as calculated using the criteria in Section 4.3 of the Design Manual. The remaining portion of the total WQv that cannot be reduced shall be treated by application of standard SMPs. (iii) Channel Protection Volume ("Cpv"): Provide 24 hour extended detention of the post-developed 1-year, 24-hour storm event: remaining after runoff reduction. The Cpv requirement does not apply when: (1) Reduction of the entire Cpv is achieved by application of runoff reduction techniques or infiltration systems, or (2) The site discharges directly to tidal waters, or fifth order or larger streams. (iv) Overbank Flood Control Criteria ("Op"): Requires storage to attenuate the post-development 10-year, 24-hour peak discharge rate (Qp) to predevelopment rates. The Op requirement does not apply when: (1) the site discharges directly to tidal waters or fifth order or larger streams, or (2) A downstream analysis reveals that overbank control is not required. (v) Extreme Flood Control Criteria ("Of"): Requires storage to attenuate the post-development 100-year, 24-hour peak discharge rate (Qf) to predevelopment rates. The Of requirement does not apply when: (1) the site discharges directly to tidal waters or fifth order or larger streams, or (2) A downstream analysis reveals that overbank control is not required. b. Sizing Criteria for New Development in Enhanced Phosphorus Removal Watershed (i) Runoff Reduction Volume (RRV): Reduce the total Water Quality Volume (WQV) by application of RR techniques and standard SMPs with RRV capacity. The total WQV is the runoff volume from the 1-year, 24 hour design storm over the post-developed watershed and shall be	(Part 1C.2.b.i) calculated in accordance with the criteria in Section 10.3 of the Design Manual. (ii) Minimum RRV and Treatment of Remaining Total WQv: Construction activities that cannot meet the criteria in Part 1.C.2.b.(i) of this permit due to site limitations shall direct runoff from all newly constructed impervious areas to a RR technique or standard SMP with RRV capacity unless infeasible. The specific site limitations that prevent the reduction of 100% of the WQV shall be documented in the SWPPP. For each impervious area that is not directed to a RR technique or standard SMP with RRV capacity, the SWPPP must include documentation which demonstrates that all options were considered and for each option explains why it is considered infeasible. In no case shall the runoff reduction achieved from the newly constructed impervious areas be less than the Minimum RRV as calculated using the criteria in Section 10.3 of the Design Manual. The remaining portion of the total WQv that cannot be reduced shall be treated by application of standard SMPs. (iii) Channel Protection Volume (Cpv): Provide 24 hour extended detention of the post-developed 1-year, 24-hour storm event; remaining after runoff reduction. The Cpv requirement does not apply when: (1) Reduction of the entire Cpv is achieved by application of runoff reduction techniques or infiltration systems, or (2) The site discharges directly to tidal waters, or fifth order or larger streams. (iv) Overbank Flood Control Criteria (Op): Requires storage to attenuate the post-development 10-year, 24-hour peak discharge rate (Qp) to predevelopment rates. The Op requirement does not apply when: (1) the site discharges directly to tidal waters or fifth order or larger streams, or (2) A downstream analysis reveals that overbank control is not required. (v) Extreme Flood Control Criteria (Of): Requires storage to attenuate the post-development 100-year, 24-hour peak discharge rate (Qf) to predevelopment rates. The Of requirement does not apply when: (1) the site discharges directly to tidal waters or fifth order or larger streams, or (2) A downstream analysis reveals that overbank control is not required.
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c. Sizing Criteria for Redevelopment Activity (Part I.C.2.e) Water Quality Volume (WQV): The WQV treatment objective for redevelopment activity shall be addressed by one of the following options. Redevelopment activities located in an Enhanced Phosphorus Removal Watershed (see Part III.B.3. and Appendix C of this permit) shall calculate the WQV in accordance with Section 10.3 of the Design Manual. All other redevelopment activities shall calculate the WQV in accordance with Section 4.2 of the Design Manual. (1) Reduce the existing <i>imperVIOUS</i> cover by a minimum of 25% of the total disturbed, <i>imperVIOUS</i> area. The Soil Restoration criteria in Section 5.1.6 of the Design Manual must be applied to all newly created pervious areas, or (2) Capture and treat a minimum of 25% of the WQV from the disturbed, <i>imperVIOUS</i> area by the application of standard SMPs, or reduce 25% of the WQV from the disturbed, <i>imperVIOUS</i> area by the application of RR techniques or standard SMPs with RRV capacity, or (3) Capture and treat a minimum of 75% of the WQV from the disturbed, <i>imperVIOUS</i> area as well as any additional runoff from tributary areas by application of the alternative practices discussed in Sections 9.3 and 9.4 of the Design Manual, or (4) Application of a combination of 1, 2 and 3 above that provide a weighted average of at least two of the above methods. Application of this method shall be in accordance with the criteria in Section 9.2.1(B) (IV) of the Design Manual. If there is an existing post-construction stormwater management practice located on the site that captures and treats runoff from the <i>imperVIOUS</i> area that is being disturbed, the WQV treatment option selected must, at a minimum, provide treatment equal to the treatment that was being provided by the existing practice(s) if that treatment is greater than the treatment required by options 1 – 4 above. (ii) Channel Protection Volume (CPV): Not required if there are no changes to hydrology that increase the discharge rate from the project site. (iii) Overbank Flood Control Criteria (Cp): Not required if there are no changes to hydrology that increase the discharge rate from the project site. (iv) Extreme Flood Control Criteria (Cf): Not required if there are no changes to hydrology that increase the discharge rate from the project site	d. Sizing Criteria for Combination of Redevelopment Activity and New Development (Part I.C.2.d) Construction projects that include both New Development and Redevelopment Activity shall provide post-construction stormwater management controls that meet the sizing criteria calculated as an aggregate of the Sizing Criteria in Part I.C.2.a. or b. of this permit for the New Development portion of the project and Part I.C.2.c of this permit for Redevelopment Activity portion of the project. D. Maintaining Water Quality The Department expects that compliance with the conditions of this permit will control discharges necessary to meet applicable water quality standards. It shall be a violation of the ECL for any discharge to either cause or contribute to a violation of water quality standards as contained in Parts 700 through 705 of Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York, such as: 1. There shall be no increase in turbidity that will cause a substantial visible contrast to natural conditions; 2. There shall be no increase in suspended, colloidal or settleable solids that will cause deposition or impair the waters for their best usages; and 3. There shall be no residue from oil and floating substances, nor visible oil film, nor globules of grease. If there is evidence indicating that the stormwater discharges authorized by this permit are causing, have the reasonable potential to cause, or are contributing to a violation of the water quality standards, the owner or operator must take appropriate corrective action in accordance with Part IV.C.5. of this general permit, and document in accordance with Part IV.C.4. of this general permit. To address the water quality standard violation the owner or operator may need to provide additional information, include and implement appropriate controls in the SWPPP to correct the problem, or obtain an individual SPDES permit. If there is evidence indicating that despite compliance with the terms and conditions of this general permit it is demonstrated that the stormwater discharges authorized by this permit are causing or contributing to a violation of water quality standards, or if the Department determines that a modification of the permit is necessary to prevent a violation of water quality standards, the authorized discharges will no longer be eligible for coverage under this permit. The Department may require the owner or operator to obtain an individual SPDES permit to continue discharging.
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E. Eligibility Under This General Permit (Part I.E) 1. This permit may authorize all <i>discharges</i> of stormwater from <i>construction activity</i> to <i>surface waters of the State and groundwaters</i> except for <i>ineligible discharges</i> identified under subparagraph F. of this Part. 2. Except for non-stormwater <i>discharges</i> explicitly listed in the next paragraph, this permit only authorizes stormwater <i>discharges</i>, including stormwater runoff, snowmelt runoff, and surface runoff and drainage, from <i>construction activities</i>. 3. Notwithstanding paragraphs E. 1 and E. 2 above, the following non-stormwater <i>discharges</i> are authorized by this permit: those listed in 6 NYCRR 750-1.2(a)(29)(v), with the following exception: <i>Discharges</i> from firefighting activities are authorized only when the firefighting activities are emergencies/unplanned; waters to which other components have not been added that are used to control dust in accordance with the SWPPP, and uncontaminated <i>discharges</i> from <i>construction site</i> de-watering operations. All non-stormwater <i>discharges</i> must be identified in the SWPPP. Under all circumstances, the <i>owner or operator</i> must still comply with <i>water quality standards</i> in Part I.D of this permit. 4. The <i>owner or operator</i> must maintain permit eligibility to <i>discharge</i> under this permit. Any <i>discharges</i> that are not compliant with the eligibility conditions of this permit are not authorized by the permit and the <i>owner or operator</i> must either apply for a separate permit to cover those <i>ineligible discharges</i> or take steps necessary to make the <i>discharge</i> eligible for coverage. F. Activities Which Are Ineligible for Coverage Under This General Permit All of the following are <u>not</u> authorized by this permit: 1. <i>Discharges</i> after <i>construction activities</i> have been completed and the site has undergone <i>final stabilization</i>; 2. <i>Discharges</i> that are mixed with sources of non-stormwater other than those expressly authorized under subsection E.3. of this Part and identified in the SWPPP required by this permit; 3. <i>Discharges</i> that are required to obtain an individual SPDES permit or another SPDES general permit pursuant to Part VII.K. of this permit; 4. <i>Construction activities or discharges</i> from <i>construction activities</i> that may adversely affect an <i>endangered or threatened species</i> unless the <i>owner or</i>	(Part I.F.4) <i>operator</i> has obtained a permit issued pursuant to 6 NYCRR Part 182 for the project or the Department has issued a letter of non-jurisdiction for the project. All documentation necessary to demonstrate eligibility shall be maintained on site in accordance with Part II.D.2 of this permit; 5. <i>Discharges</i> which either cause or contribute to a violation of <i>water quality standards</i> adopted pursuant to the ECL and its accompanying regulations; 6. <i>Construction activities</i> for residential, commercial and institutional projects: a. Where the <i>discharges</i> from the <i>construction activities</i> are tributary to waters of the state classified as AA or AA-s; and b. Which are undertaken on land with no existing <i>impervious cover</i>, and c. Which disturb one (1) or more acres of land designated on the current United States Department of Agriculture ("USDA") Soil Survey as Soil Slope Phase "D", (provided the map unit name is inclusive of slopes greater than 25%), or Soil Slope Phase "E" or "F" (regardless of the map unit name), or a combination of the three designations. 7. <i>Construction activities</i> for linear transportation projects and linear utility projects: a. Where the <i>discharges</i> from the <i>construction activities</i> are tributary to waters of the state classified as AA or AA-s; and b. Which are undertaken on land with no existing <i>impervious cover</i>, and c. Which disturb two (2) or more acres of land designated on the current USDA Soil Survey as Soil Slope Phase "D" (provided the map unit name is inclusive of slopes greater than 25%), or Soil Slope Phase "E" or "F" (regardless of the map unit name), or a combination of the three designations.
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8. <i>Construction activities</i> that have the potential to affect an <i>historic property</i>, unless there is documentation that such impacts have been resolved. The following documentation necessary to demonstrate eligibility with this requirement shall be maintained on site in accordance with Part II.D.2 of this permit and made available to the Department in accordance with Part VII.F of this permit: a. Documentation that the <i>construction activity</i> is not within an archeologically sensitive area indicated on the sensitivity map, and that the <i>construction activity</i> is not located on or immediately adjacent to a property listed or determined to be eligible for listing on the National or State Registers of Historic Places, and that there is no new permanent building on the <i>construction site</i> within the following distances from a building, structure, or object that is more than 50 years old, or if there is such a new permanent building on the <i>construction site</i> within those parameters that NYS Office of Parks, Recreation and Historic Preservation (OPRHP), a Historic Preservation Commission of a Certified Local Government, or a qualified preservation professional has determined that the building, structure, or object more than 50 years old is not historically/archeologically significant. ▪ 1-5 acres of disturbance - 20 feet ▪ 5-20 acres of disturbance - 50 feet ▪ 20+ acres of disturbance - 100 feet, or b. DEC consultation form sent to OPRHP, and copied to the NYS DEC Agency Historic Preservation Officer (APO), and (i) the State Environmental Quality Review (SEQR) Environmental Assessment Form (EAF) with a negative declaration or the Findings Statement, with documentation of OPRHP's agreement with the resolution; or (ii) documentation from OPRHP that the <i>construction activity</i> will result in No Impact; or (iii) documentation from OPRHP providing a determination of No Adverse Impact; or (iv) a Letter of Resolution signed by the owner/operator, OPRHP and the DEC APO which allows for this <i>construction activity</i> to be eligible for coverage under the general permit in terms of the State Historic Preservation Act (SHPA); or c. Documentation of satisfactory compliance with Section 106 of the National Historic Preservation Act for a continuous project area.	(Part I.F.2) (Part I.F.3) 9. <i>Discharges from construction activities</i> that are subject to an existing SPDES individual or general permit where a SPDES permit for <i>construction activity</i> has been terminated or denied; or where the <i>owner or operator</i> has failed to renew an expired individual permit. d. Documentation that: (i) SHPA Section 14.09 has been completed by NYS DEC or another state agency. (ii) No Affect (iii) No Adverse Affect (iii) Executed Memorandum of Agreement, or Part II. PERMIT COVERAGE A. How to Obtain Coverage 1. An <i>owner or operator</i> of a <i>construction activity</i> that is not subject to the requirements of a regulated, traditional land use control MS4 must first prepare a SWPPP in accordance with all applicable requirements of this permit and then submit a completed Notice of Intent (NOI) to the Department to be authorized to discharge under this permit. 2. An <i>owner or operator</i> of a <i>construction activity</i> that is subject to the requirements of a regulated, traditional land use control MS4 must first prepare a SWPPP in accordance with all applicable requirements of this permit and then have the SWPPP reviewed and accepted by the regulated, traditional land use control MS4 prior to submitting the NOI to the Department. The <i>owner or operator</i> shall have the "MS4 SWPPP Acceptance" form signed in accordance with Part VII.H., and then submit that form along with a completed NOI to the Department. 3. The requirement for an <i>owner or operator</i> to have its SWPPP reviewed and accepted by the regulated, traditional land use control MS4 prior to submitting the NOI to the Department does not apply to an <i>owner or operator</i> that is obtaining permit coverage in accordance with the requirements in Part II.F. (Change of Owner or Operator) or where the <i>owner or operator</i> of the <i>construction activity</i> is the regulated, traditional land use control MS4. This exemption does not apply to construction activities subject to the New York City Administrative Code.
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(Part II.B) B. Notice of Intent (NOI) Submittal - Prior to December 21, 2020, an owner or operator shall use either the electronic (eNOI) or paper version of the NOI that the Department prepared. Both versions of the NOI are located on the Department's website (http://www.dec.ny.gov/). The paper version of the NOI shall be signed in accordance with Part VII.H. of this permit and submitted to the following address: NOTICE OF INTENT NYS DEC, Bureau of Water Permits 625 Broadway, 4th Floor Albany, New York 12233-3505 - Beginning December 21, 2020 and in accordance with EPA's 2015 NPDES Electronic Reporting Rule (40 CFR Part 127), the owner or operator must submit the NOI electronically using the Department's online NOI. - The owner or operator shall have the SWPPP preparer sign the "SWPPP Preparer Certification" statement on the NOI prior to submitting the form to the Department. - As of the date the NOI is submitted to the Department, the owner or operator shall make the NOI and SWPPP available for review and copying in accordance with the requirements in Part VII.F. of this permit. C. Permit Authorization - An owner or operator shall not commence construction activity until their authorization to discharge under this permit goes into effect. - Authorization to discharge under this permit will be effective when the owner or operator has satisfied <u>all</u> of the following criteria: - project review pursuant to the State Environmental Quality Review Act ("SEQRA") have been satisfied, when SEQRA is applicable. See the Department's website (http://www.dec.ny.gov/) for more information, - where required, all necessary Department permits subject to the Uniform Procedures Act ("UPA") (see 6 NYCRR Part 62.1), or the equivalent from another New York State agency, have been obtained, unless otherwise notified by the Department pursuant to 6 NYCRR 62.1 3(a)(4). Owners or operators of construction activities that are required to obtain UPA permits 13	(Part II.C.2.b) must submit a preliminary SWPPP to the appropriate DEC Permit Administrator at the Regional Office listed in Appendix F at the time all other necessary UPA permit applications are submitted. The preliminary SWPPP must include sufficient information to demonstrate that the construction activity qualifies for authorization under this permit, - the final SWPPP has been prepared, and - a complete NOI has been submitted to the Department in accordance with the requirements of this permit. - An owner or operator that has satisfied the requirements of Part II.C.2 above will be authorized to discharge stormwater from their construction activity in accordance with the following schedule: - For construction activities that are <u>not</u> subject to the requirements of a regulated, traditional land use control MS4: - Five (5) business days from the date the Department receives a complete electronic version of the NOI (eNOI) for construction activities with a SWPPP that has been prepared in conformance with the design criteria in the technical standard referenced in Part III.B.1 and the performance criteria in the technical standard referenced in Parts III.B., 2 or 3, for construction activities that require post-construction stormwater management practices pursuant to Part III.C.; or - Sixty (60) business days from the date the Department receives a complete NOI (electronic or paper version) for construction activities with a SWPPP that has not been prepared in conformance with the design criteria in technical standard referenced in Part III.B.1, or, for construction activities that require post-construction stormwater management practices pursuant to Part III.C., the performance criteria in the technical standard referenced in Parts III.B., 2 or 3, or; - Ten (10) business days from the date the Department receives a complete paper version of the NOI for construction activities with a SWPPP that has been prepared in conformance with the design criteria in the technical standard referenced in Part III.B.1 and the performance criteria in the technical standard referenced in Parts III.B., 2 or 3, for construction activities that require post-construction stormwater management practices pursuant to Part III.C. 14
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(Part II.C.3.b) b. For construction activities that are subject to the requirements of a regulated, traditional land use control MS4: (i) Five (5) business days from the date the Department receives both a complete electronic version of the NOI (eNOI) and signed MS4 SWPPP Acceptance form, or (ii) Ten (10) business days from the date the Department receives both a complete paper version of the NOI and signed MS4 SWPPP Acceptance form. 4. Coverage under this permit authorizes stormwater discharges from only those areas of disturbance that are identified in the NOI. If an owner or operator wishes to have stormwater discharges from future or additional areas of disturbance authorized, they must submit a new NOI that addresses that phase of the development, unless otherwise notified by the Department. The owner or operator shall not commence construction activity on the future or additional areas until their authorization to discharge under this permit goes into effect in accordance with Part II.C. of this permit. D. General Requirements For Owners or Operators With Permit Coverage 1. The owner or operator shall ensure that the provisions of the SWPPP are implemented from the commencement of construction activity until all areas of disturbance have achieved final stabilization and the Notice of Termination ("NOT") has been submitted to the Department in accordance with Part V. of this permit. This includes any changes made to the SWPPP pursuant to Part III.A.4. of this permit. 2. The owner or operator shall maintain a copy of the General Permit (GP-0-20-001), NOI, NOI Acknowledgment Letter, SWPPP, MS4 SWPPP Acceptance form, inspection reports, responsible contractor's or subcontractor's certification statement (see Part III.A.6.), and all documentation necessary to demonstrate eligibility with this permit at the construction site until all disturbed areas have achieved final stabilization and the NOT has been submitted to the Department. The documents must be maintained in a secure location, such as a job trailer, on-site construction office, or mailbox with lock. The secure location must be accessible during normal business hours to an individual performing a compliance inspection. 3. The owner or operator of a construction activity shall not disturb greater than five (5) acres of soil at any one time without prior written authorization from the Department or, in areas under the jurisdiction of a regulated, traditional land	(Part II.D.3) use control MS4, the regulated, traditional land use control MS4 (provided the regulated, traditional land use control MS4 is not the owner or operator of the construction activity). At a minimum, the owner or operator must comply with the following requirements in order to be authorized to disturb greater than five (5) acres of soil at any one time: a. The owner or operator shall have a qualified inspector conduct at least two (2) site inspections in accordance with Part IV.C. of this permit every seven (7) calendar days, for as long as greater than five (5) acres of soil remain disturbed. The two (2) inspections shall be separated by a minimum of two (2) full calendar days. b. In areas where soil disturbance activity has temporarily or permanently ceased, the application of soil stabilization measures must be initiated by the end of the next business day and completed within seven (7) days from the date the current soil disturbance activity ceased. The soil stabilization measures selected shall be in conformance with the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016. c. The owner or operator shall prepare a phasing plan that defines maximum disturbed area per phase and shows required cuts and fills. d. The owner or operator shall install any additional site-specific practices needed to protect water quality. e. The owner or operator shall include the requirements above in their SWPPP. 4. In accordance with statute, regulations, and the terms and conditions of this permit, the Department may suspend or revoke an owner's or operator's coverage under this permit at any time if the Department determines that the SWPPP does not meet the permit requirements or consistent with Part VII.K.. 5. Upon a finding of significant non-compliance with the practices described in the SWPPP or violation of this permit, the Department may order an immediate stop to all activity at the site until the non-compliance is remedied. The stop work order shall be in writing, describe the non-compliance in detail, and be sent to the owner or operator. 6. For construction activities that are subject to the requirements of a regulated, traditional land use control MS4, the owner or operator shall notify the
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<i>regulated, traditional land use control MS4</i> in writing of any planned amendments or modifications to the post-construction stormwater management practice component of the SWPPP required by Part III.A. 4. and 5. of this permit. Unless otherwise notified by the <i>regulated, traditional land use control MS4</i>, the <i>owner or operator</i> shall have the SWPPP amendments or modifications reviewed and accepted by the <i>regulated, traditional land use control MS4</i> prior to commencing construction of the post-construction stormwater management practice. (Part II.D.6) E. Permit Coverage for Discharges Authorized Under GP-0-15-002 1. Upon renewal of SPDES General Permit for Stormwater Discharges from <i>Construction Activity</i> (Permit No. GP-0-15-002), an <i>owner or operator</i> of a <i>construction activity</i> with coverage under GP-0-15-002, as of the effective date of GP-0-20-001, shall be authorized to <i>discharge</i> in accordance with GP-0-20-001, unless otherwise notified by the Department. An <i>owner or operator</i> may continue to implement the technical/design components of the post-construction stormwater management controls provided that such design was done in conformance with the technical standards in place at the time of initial project authorization. However, they must comply with the other, non-design provisions of GP-0-20-001. F. Change of Owner or Operator 1. When property ownership changes or when there is a change in operational control over the construction plans and specifications, the original <i>owner or operator</i> must notify the new <i>owner or operator</i>. In writing, of the requirement to obtain permit coverage by submitting a NOI with the Department. For <i>construction activities</i> subject to the requirements of a <i>regulated, traditional land use control MS4</i>, the original <i>owner or operator</i> must also notify the <i>MS4</i>, in writing, of the change in ownership at least 30 calendar days prior to the change in ownership. 2. Once the new <i>owner or operator</i> obtains permit coverage, the original <i>owner or operator</i> shall then submit a completed NOT with the name and permit identification number of the new <i>owner or operator</i> to the Department at the address in Part II.B.1. of this permit. If the original <i>owner or operator</i> maintains ownership of a portion of the <i>construction activity</i> and will disturb soil, they must maintain their coverage under the permit. 3. Permit coverage for the new <i>owner or operator</i> will be effective as of the date the Department receives a complete NOI, provided the original <i>owner or</i>	<i>operator</i> was not subject to a sixty (60) business day authorization period that has not expired as of the date the Department receives the NOI from the new <i>owner or operator</i>. (Part II.F.3) Part III. STORMWATER POLLUTION PREVENTION PLAN (SWPPP) A. General SWPPP Requirements 1. A SWPPP shall be prepared and implemented by the <i>owner or operator</i> of each <i>construction activity</i> covered by this permit. The SWPPP must document the selection, design, installation, implementation and maintenance of the control measures and practices that will be used to meet the effluent limitations in Part II.B. of this permit and where applicable, the post-construction stormwater management practice requirements in Part I.C. of this permit. The SWPPP shall be prepared prior to the submittal of the NOI. The NOI shall be submitted to the Department prior to the <i>commencement of construction activity</i>. A copy of the completed, final NOI shall be included in the SWPPP. 2. The SWPPP shall describe the erosion and sediment control practices and where required, post-construction stormwater management practices that will be used and/or constructed to reduce the <i>pollutants</i> in stormwater <i>discharges</i> and to assure compliance with the terms and conditions of this permit. In addition, the SWPPP shall identify potential sources of pollution which may reasonably be expected to affect the quality of stormwater <i>discharges</i>. 3. All SWPPPs that require the post-construction stormwater management practice component shall be prepared by a <i>qualified professional</i> that is knowledgeable in the principles and practices of stormwater management and treatment. 4. The <i>owner or operator</i> must keep the SWPPP current so that it at all times accurately documents the erosion and sediment controls practices that are being used or will be used during construction, and all post-construction stormwater management practices that will be constructed on the site. At a minimum, the <i>owner or operator</i> shall amend the SWPPP, including construction drawings: a. whenever the current provisions prove to be ineffective in minimizing <i>pollutants</i> in stormwater <i>discharges</i> from the site;
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6. Prior to the commencement of construction activity, the owner or operator must identify the contractor(s) and subcontractor(s) that will be responsible for installing, constructing, repairing, replacing, inspecting and maintaining the erosion and sediment control practices included in the SWPPP; and the contractor(s) and subcontractor(s) that will be responsible for constructing the post-construction stormwater management practices included in the SWPPP. The owner or operator shall have each of the contractors and subcontractors identify at least one person from their company that will be responsible for implementation of the SWPPP. This person shall be known as the <i>trained contractor</i>. The owner or operator shall ensure that at least one <i>trained contractor</i> is on site on a daily basis when soil disturbance activities are being performed. The owner or operator shall have each of the contractors and subcontractors identified above sign a copy of the following certification statement below before they commence any construction activity. "I hereby certify under penalty of law that I understand and agree to comply with the terms and conditions of the SWPPP and agree to implement any corrective actions identified by the <i>qualified inspector</i> during a site inspection. I also understand that the owner or operator must comply with	7. For projects where the Department requests a copy of the SWPPP or inspection reports, the owner or operator shall submit the documents in both electronic (PDF only) and paper format within five (5) business days, unless otherwise notified by the Department. B. Required SWPPP Contents 1. Erosion and sediment control component - All SWPPPs prepared pursuant to this permit shall include erosion and sediment control practices designed in conformance with the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016. Where erosion and sediment control practices are not designed in conformance with the design criteria included in the technical standard, the owner or operator must demonstrate <i>equivalence</i> to the technical standard. At a minimum, the erosion and sediment control component of the SWPPP shall include the following: a. Background information about the scope of the project, including the location, type and size of project
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(Part III.B.1.b) b. A site map/construction drawing(s) for the project, including a general location map. At a minimum, the site map shall show the total site area; all improvements; areas of disturbance; areas that will not be disturbed; existing vegetation; on-site and adjacent off-site surface water(s); floodplain/floodway boundaries; wetlands and drainage patterns that could be affected by the <i>construction activity</i>; existing and final contours; locations of different soil types with boundaries; material, waste, borrow or equipment storage areas located on adjacent properties; and location(s) of the stormwater discharge(s). c. A description of the soil(s) present at the site, including an identification of the Hydrologic Soil Group (HSG). d. A construction phasing plan and sequence of operations describing the intended order of <i>construction activities</i>, including clearing and grubbing, excavation and grading, utility and infrastructure installation and any other activity at the site that results in soil disturbance. e. A description of the minimum erosion and sediment control practices to be installed or implemented for each <i>construction activity</i> that will result in soil disturbance. Include a schedule that identifies the timing of initial placement or implementation of each erosion and sediment control practice and the minimum time frames that each practice should remain in place or be implemented. f. A temporary and permanent soil stabilization plan that meets the requirements of this general permit and the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016, for each stage of the project, including initial land clearing and grubbing to project completion and achievement of <i>final stabilization</i>. g. A site map/construction drawing(s) showing the specific location(s), size(s), and length(s) of each erosion and sediment control practice. h. The dimensions, material specifications, installation details, and operation and maintenance requirements for all erosion and sediment control practices. Include the location and sizing of any temporary sediment basins and structural practices that will be used to divert flows from exposed soils. i. A maintenance inspection schedule for the contractor(s) identified in Part III.A.6, of this permit, to ensure continuous and effective operation of the erosion and sediment control practices. The maintenance inspection	(Part III.B.1.f) schedule shall be in accordance with the requirements in the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016. j. A description of the pollution prevention measures that will be used to control litter, construction chemicals and construction debris from becoming a <i>pollutant</i> source in the stormwater discharges. k. A description and location of any stormwater discharges associated with industrial activity other than construction at the site, including, but not limited to, stormwater discharges from asphalt plants and concrete plants located on the <i>construction site</i>; and l. Identification of any elements of the design that are not in conformance with the design criteria in the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016. Include the reason for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is <i>equivalent</i> to the technical standard. 2. Post-construction stormwater management practice component – The owner or operator of any construction project identified in Table 2 of Appendix B as needing post-construction stormwater management practices shall prepare a SWPPP that includes practices designed in conformance with the applicable <i>sizing criteria</i> in Part I.C.2.a, c, or d, of this permit and the <i>performance criteria</i> in the technical standard, New York State Stormwater Management Design Manual dated January 2015 Where post-construction stormwater management practices are not designed in conformance with the <i>performance criteria</i> in the technical standard, the owner or operator must include in the SWPPP the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is <i>equivalent</i> to the technical standard. The post-construction stormwater management practice component of the SWPPP shall include the following: a. Identification of all post-construction stormwater management practices to be constructed as part of the project. Include the dimensions, material specifications and installation details for each post-construction stormwater management practice.
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(Part III.B.2.b) b. A site map/construction drawing(s) showing the specific location and size of each post-construction stormwater management practice. c. A Stormwater Modeling and Analysis Report that includes: (i) Map(s) showing pre-development conditions, including watershed/subcatchments boundaries, flow paths/routing, and design points; (ii) Map(s) showing post-development conditions, including watershed/subcatchments boundaries, flow paths/routing, design points and post-construction stormwater management practices; (iii) Results of stormwater modeling (i.e. hydrology and hydraulic analysis) for the required storm events. Include supporting calculations (model runs), methodology, and a summary table that compares pre and post-development runoff rates and volumes for the different storm events; (iv) Summary table, with supporting calculations, which demonstrates that each post-construction stormwater management practice has been designed in conformance with the <i>sizing criteria</i> included in the Design Manual; (v) Identification of any <i>sizing criteria</i> that is not required based on the requirements included in Part I.C. of this permit; and (vi) Identification of any elements of the design that are not in conformance with the <i>performance criteria</i> in the Design Manual. Include the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is <i>equivalent</i> to the Design Manual; d. Soil testing results and locations (test pits, borings); e. Infiltration test results, when required; and f. An operations and maintenance plan that includes inspection and maintenance schedules and actions to ensure continuous and effective operation of each post-construction stormwater management practice. The plan shall identify the entity that will be responsible for the long term operation and maintenance of each practice.	(Part III.B.3) 3. Enhanced Phosphorus Removal Standards - All construction projects identified in Table 2 of Appendix B that are located in the watersheds identified in Appendix C shall prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the applicable <i>sizing criteria</i> in Part I.C.2, b., c. or d. of this permit and the <i>performance criteria</i>. Enhanced Phosphorus Removal Standards included in the Design Manual. At a minimum, the post-construction stormwater management practice component of the SWPPP shall include items 2.a - 2.f, above. C. Required SWPPP Components by Project Type Unless otherwise notified by the Department, <i>owners or operators of construction activities</i> identified in Table 1 of Appendix B are required to prepare a SWPPP that only includes erosion and sediment control practices designed in conformance with Part III.B.1 of this permit. <i>Owners or operators of the construction activities</i> identified in Table 2 of Appendix B shall prepare a SWPPP that also includes post-construction stormwater management practices designed in conformance with Part III.B.2 or 3 of this permit. Part IV. INSPECTION AND MAINTENANCE REQUIREMENTS A. General Construction Site Inspection and Maintenance Requirements 1. The <i>owner or operator</i> must ensure that all erosion and sediment control practices (including pollution prevention measures) and all post-construction stormwater management practices identified in the SWPPP are inspected and maintained in accordance with Part IV.B. and C. of this permit. 2. The terms of this permit shall not be construed to prohibit the State of New York from exercising any authority pursuant to the ECL, common law or federal law, or prohibit New York State from taking any measures, whether civil or criminal, to prevent violations of the laws of the State of New York or protect the public health and safety and/or the environment. B. Contractor Maintenance Inspection Requirements 1. The <i>owner or operator</i> of each <i>construction activity</i> identified in Tables 1 and 2 of Appendix B shall have a <i>trained contractor</i> inspect the erosion and sediment control practices and pollution prevention measures being implemented within the active work area daily to ensure that they are being maintained in effective operating condition at all times. If deficiencies are identified, the contractor shall
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begin implementing corrective actions within one business day and shall complete the corrective actions in a reasonable time frame. (Part IV.B.1) - For construction sites where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and temporary stabilization measures have been applied to all disturbed areas, the <i>trained contractor</i> can stop conducting the maintenance inspections. The <i>trained contractor</i> shall begin conducting the maintenance inspections in accordance with Part IV.B.1. of this permit as soon as soil disturbance activities resume. - For construction sites where soil disturbance activities have been shut down with partial project completion, the <i>trained contractor</i> can stop conducting the maintenance inspections if all areas disturbed as of the project shutdown date have achieved <i>final stabilization</i> and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational. C. Qualified Inspector Requirements The <i>owner or operator</i> shall have a <i>qualified inspector</i> conduct site inspections in conformance with the following requirements: [Note: The <i>trained contractor</i> identified in Part III.A.6. and IV.B. of this permit cannot conduct the <i>qualified inspector</i> site inspections unless they meet the <i>qualified inspector</i> qualifications included in Appendix A. In order to perform these inspections, the <i>trained contractor</i> would have to be a: ▪ Licensed Professional Engineer, ▪ Certified Professional in Erosion and Sediment Control (CPESC), ▪ New York State Erosion and Sediment Control Certificate Program holder ▪ Registered Landscape Architect, or ▪ someone working under the direct supervision of, and at the same company as, the Licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity]. - A <i>qualified inspector</i> shall conduct site inspections for all construction activities identified in Tables 1 and 2 of Appendix B, with the exception of: a. the construction of a single family residential subdivision with 25% or less impervious cover at total site build-out that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres and is <u>not</u> located	in one of the watersheds listed in Appendix C and <u>not</u> directly discharging to one of the 303(d) segments listed in Appendix E: (Part IV.C.1.a) - the construction of a single family home that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres and is <u>not</u> located in one of the watersheds listed in Appendix C and <u>not</u> directly discharging to one of the 303(d) segments listed in Appendix E; - construction on agricultural property that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres; and <i>construction activities</i> located in the watersheds identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land. - Unless otherwise notified by the Department, the <i>qualified inspector</i> shall conduct site inspections in accordance with the following timetable: - For construction sites where soil disturbance activities are on-going, the <i>qualified inspector</i> shall conduct a site inspection at least once every seven (7) calendar days. - For construction sites where soil disturbance activities are on-going and the <i>owner or operator</i> has received authorization in accordance with Part II.D.3 to disturb greater than five (5) acres of soil at any one time, the <i>qualified inspector</i> shall conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days. - For construction sites where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and temporary stabilization measures have been applied to all disturbed areas, the <i>qualified inspector</i> shall conduct a site inspection at least once every thirty (30) calendar days. The <i>owner or operator</i> shall notify the DOW Water (SPDES) Program contact at the Regional Office (see contact information in Appendix F) or, in areas under the jurisdiction of a <i>regulated, traditional land use control MS4</i>, the <i>regulated, traditional land use control MS4</i> (provided the <i>regulated, traditional land use control MS4</i> is not the <i>owner or operator</i> of the construction activity) in writing prior to reducing the frequency of inspections.
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d. For construction sites where soil disturbance activities have been shut down with partial project completion, the <i>qualified inspector</i> can stop conducting inspections if all areas disturbed as of the project shutdown date have achieved <i>final stabilization</i> and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational. The <i>owner or operator</i> shall notify the DOW Water (SPDES) Program contact at the Regional Office (see contact information in Appendix F) or, in areas under the jurisdiction of a regulated, <i>traditional land use control MS4</i>, the regulated, <i>traditional land use control MS4</i> (provided the regulated, <i>traditional land use control MS4</i> is not the <i>owner or operator</i> of the construction activity) in writing prior to the shutdown. If soil disturbance activities are not resumed within 2 years from the date of shutdown, the <i>owner or operator</i> shall have the <i>qualified inspector</i> perform a final inspection and certify that all disturbed areas have achieved <i>final stabilization</i>, and all temporary, structural erosion and sediment control measures have been removed, and that all post-construction stormwater management practices have been constructed in conformance with the SWPPP by signing the "Final Stabilization" and "Post-Construction Stormwater Management Practice" certification statements on the NOI. The <i>owner or operator</i> shall then submit the completed NOI form to the address in Part II.B.1 of this permit. e. For construction sites that directly <i>discharge</i> to one of the 303(d) segments listed in Appendix E or is located in one of the watersheds listed in Appendix C, the <i>qualified inspector</i> shall conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days. 3. At a minimum, the <i>qualified inspector</i> shall inspect all erosion and sediment control practices and pollution prevention measures to ensure integrity and effectiveness, all post-construction stormwater management practices under construction to ensure that they are constructed in conformance with the SWPPP, all areas of disturbance that have not achieved <i>final stabilization</i>, all points of <i>discharge</i> to natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the construction site, and all points of <i>discharge</i> from the construction site. 4. The <i>qualified inspector</i> shall prepare an inspection report subsequent to each and every inspection. At a minimum, the inspection report shall include and/or address the following:	(Part IV.C.2.d) a. Date and time of inspection; b. Name and title of person(s) performing inspection; c. A description of the weather and soil conditions (e.g. dry, wet, saturated) at the time of the inspection; d. A description of the condition of the runoff at all points of <i>discharge</i> from the construction site. This shall include identification of any <i>discharges</i> of sediment from the construction site. Include <i>discharges</i> from conveyance systems (i.e. pipes, culverts, ditches, etc.) and overland flow; e. A description of the condition of all natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the construction site which receive runoff from disturbed areas. This shall include identification of any <i>discharges</i> of sediment to the surface waterbody; f. Identification of all erosion and sediment control practices and pollution prevention measures that need repair or maintenance; g. Identification of all erosion and sediment control practices and pollution prevention measures that were not installed properly or are not functioning as designed and need to be reinstalled or replaced; h. Description and sketch of areas with active soil disturbance activity, areas that have been disturbed but are inactive at the time of the inspection, and areas that have been stabilized (temporary and/or final) since the last inspection; i. Current phase of construction of all post-construction stormwater management practices and identification of all construction that is not in conformance with the SWPPP and technical standards; j. Corrective action(s) that must be taken to install, repair, replace or maintain erosion and sediment control practices and pollution prevention measures; and to correct deficiencies identified with the construction of the post-construction stormwater management practice(s); k. Identification and status of all corrective actions that were required by previous inspection, and
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1. Digital photographs, with date stamp, that clearly show the condition of all practices that have been identified as needing corrective actions. The <i>qualified inspector</i> shall attach paper color copies of the digital photographs to the inspection report being maintained onsite within seven (7) calendar days of the date of the inspection. The <i>qualified inspector</i> shall also take digital photographs, with date stamp, that clearly show the condition of the practice(s) after the corrective action has been completed. The <i>qualified inspector</i> shall attach paper color copies of the digital photographs to the inspection report that documents the completion of the corrective action work within seven (7) calendar days of that inspection. 5. Within one business day of the completion of an inspection, the <i>qualified inspector</i> shall notify the <i>owner or operator</i> and appropriate contractor or subcontractor identified in Part II.A.6. of this permit of any corrective actions that need to be taken. The contractor or subcontractor shall begin implementing the corrective actions within one business day of this notification and shall complete the corrective actions in a reasonable time frame. 6. All inspection reports shall be signed by the <i>qualified inspector</i>. Pursuant to Part II.D.2. of this permit, the inspection reports shall be maintained on site with the SWPPP. Part V. TERMINATION OF PERMIT COVERAGE A. Termination of Permit Coverage 1. An <i>owner or operator</i> that is eligible to terminate coverage under this permit must submit a completed NOT form to the address in Part II.B.1 of this permit. The NOT form shall be one which is associated with this permit, signed in accordance with Part VII.H of this permit. 2. An <i>owner or operator</i> may terminate coverage when one or more the following conditions have been met: a. Total project completion - All construction activity identified in the SWPPP has been completed, and all areas of disturbance have achieved <i>final stabilization</i>, and all temporary, structural erosion and sediment control measures have been removed, and all post-construction stormwater management practices have been constructed in conformance with the SWPPP and are operational;	(Part IV.C.4) b. Planned shutdown with partial project completion - All soil disturbance activities have ceased, and all areas disturbed as of the project shutdown date have achieved <i>final stabilization</i>; and all temporary, structural erosion and sediment control measures have been removed, and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational; c. A new <i>owner or operator</i> has obtained coverage under this permit in accordance with Part II.F. of this permit. d. The <i>owner or operator</i> obtains coverage under an alternative SPDES general permit or an individual SPDES permit. 3. For construction activities meeting subdivision 2a. or 2b. of this Part, the <i>owner or operator</i> shall have the <i>qualified inspector</i> perform a final site inspection prior to submitting the NOT. The <i>qualified inspector</i> shall, by signing the "Final Stabilization" and "Post-Construction Stormwater Management Practice certification statements on the NOT", certify that all the requirements in Part V.A.2.a. or b. of this permit have been achieved. 4. For construction activities that are subject to the requirements of a regulated, traditional land use control MS4 and meet subdivision 2a. or 2b. of this Part, the <i>owner or operator</i> shall have the regulated, traditional land use control MS4 sign the "MS4 Acceptance" statement on the NOT in accordance with the requirements in Part VII.H. of this permit. The regulated, traditional land use control MS4 official, by signing this statement, has determined that it is acceptable for the <i>owner or operator</i> to submit the NOT in accordance with the requirements of this Part. The regulated, traditional land use control MS4 can make this determination by performing a final site inspection themselves or by accepting the <i>qualified inspector's</i> final site inspection certification(s) required in Part V.A.3. of this permit. 5. For construction activities that require post-construction stormwater management practices and meet subdivision 2a. of this Part, the <i>owner or operator</i> must, prior to submitting the NOT, ensure one of the following: a. the post-construction stormwater management practice(s) and any right-of-way(s) needed to maintain such practice(s) have been deeded to the municipality in which the practice(s) is located;
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(Part V.A.5.b) b. an executed maintenance agreement is in place with the municipality that will maintain the post-construction stormwater management practice(s). c. for post-construction stormwater management practices that are privately owned, the <i>owner or operator</i> has a mechanism in place that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan, such as a deed covenant in the <i>owner or operator's</i> deed of record. d. for post-construction stormwater management practices that are owned by a public or private institution (e.g. school, university, hospital), government agency or authority, or public utility, the <i>owner or operator</i> has policy and procedures in place that ensures operation and maintenance of the practices in accordance with the operation and maintenance plan. Part VI. REPORTING AND RETENTION RECORDS A. Record Retention The <i>owner or operator</i> shall retain a copy of the NOI, NOI Acknowledgment Letter, SWPPP, MS4 SWPPP Acceptance form and any inspection reports that were prepared in conjunction with this permit for a period of at least five (5) years from the date that the Department receives a complete NOT submitted in accordance with Part V. of this general permit. B. Addressees With the exception of the NOI, NOT, and MS4 SWPPP Acceptance form (which must be submitted to the address referenced in Part II.B.1 of this permit), all written correspondence requested by the Department, including individual permit applications, shall be sent to the address of the appropriate DOW Water (SPDES) Program contact at the Regional Office listed in Appendix F. Part VII. STANDARD PERMIT CONDITIONS A. Duty to Comply The <i>owner or operator</i> must comply with all conditions of this permit. All contractors and subcontractors associated with the project must comply with the terms of the SWPPP. Any non-compliance with this permit constitutes a violation of the Clean Water	(Part VII.A) Act (CWA) and the ECL, and is grounds for an enforcement action against the <i>owner or operator</i> and/or the contractor/subcontractor; permit revocation, suspension or modification; or denial of a permit renewal application. Upon a finding of significant non-compliance with this permit or the applicable SWPPP, the Department may order an immediate stop to all <i>construction activity</i> at the site until the non-compliance is remedied. The stop work order shall be in writing, shall describe the non-compliance in detail, and shall be sent to the <i>owner or operator</i>. If any human remains or archaeological remains are encountered during excavation, the <i>owner or operator</i> must immediately cease, or cause to cease, all <i>construction activity</i> in the area of the remains and notify the appropriate Regional Water Engineer (RWE). <i>Construction activity</i> shall not resume until written permission to do so has been received from the RWE. B. Continuation of the Expired General Permit This permit expires five (5) years from the effective date. If a new general permit is not issued prior to the expiration of this general permit, an <i>owner or operator</i> with coverage under this permit may continue to operate and <i>discharge</i> in accordance with the terms and conditions of this general permit, if it is extended pursuant to the State Administrative Procedure Act and 6 NYCRR Part 621, until a new general permit is issued. C. Enforcement Failure of the <i>owner or operator</i>, its contractors, subcontractors, agents and/or assigns to strictly adhere to any of the permit requirements contained herein shall constitute a violation of this permit. There are substantial criminal, civil, and administrative penalties associated with violating the provisions of this permit. Fines of up to \$37,500 per day for each violation and imprisonment for up to fifteen (15) years may be assessed depending upon the nature and degree of the offense. D. Need to Halt or Reduce Activity Not a Defense It shall not be a defense for an <i>owner or operator</i> in an enforcement action that it would have been necessary to halt or reduce the <i>construction activity</i> in order to maintain compliance with the conditions of this permit.
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E. Duty to Mitigate (Part VII.E) The <i>owner or operator</i> and its contractors and subcontractors shall take all reasonable steps to <i>minimize</i> or prevent any <i>discharge</i> in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment. F. Duty to Provide Information The <i>owner or operator</i> shall furnish to the Department, within a reasonable specified time period of a written request, all documentation necessary to demonstrate eligibility and any information to determine compliance with this permit or to determine whether cause exists for modifying or revoking this permit, or suspending or denying coverage under this permit, in accordance with the terms and conditions of this permit. The NOI, SWPPP and inspection reports required by this permit are public documents that the <i>owner or operator</i> must make available for review and copying by any person within five (5) business days of the <i>owner or operator</i> receiving a written request by any such person to review these documents. Copying of documents will be done at the requester's expense. G. Other Information When the <i>owner or operator</i> becomes aware that they failed to submit any relevant facts, or submitted incorrect information in the NOI or in any of the documents required by this permit, or have made substantive revisions to the SWPPP (e.g. the scope of the project changes significantly, the type of post-construction stormwater management practice(s) changes, there is a reduction in the sizing of the post-construction stormwater management practice, or there is an increase in the disturbance area or <i>impervious area</i>), which were not reflected in the original NOI submitted to the Department, they shall promptly submit such facts or information to the Department using the contact information in Part II.A, or this permit. Failure of the <i>owner or operator</i> to correct or supplement any relevant facts within five (5) business days of becoming aware of the deficiency shall constitute a violation of this permit. H. Signatory Requirements 1. All NOIs and NOTs shall be signed as follows: a. For a corporation these forms shall be signed by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:	(i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or (ii) the manager of one or more manufacturing, production or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures; b. For a partnership or sole proprietorship these forms shall be signed by a general partner or the proprietor, respectively; or c. For a municipality, State, Federal, or other public agency these forms shall be signed by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes: (i) the chief executive officer of the agency; or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g. Regional Administrators of EPA). 2. The SWPPP and other information requested by the Department shall be signed by a person described in Part VII.H.1. of this permit or by a duly authorized representative of that person. A person is a duly authorized representative only if: a. The authorization is made in writing by a person described in Part VII.H.1. of this permit; b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field,
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(Part VII.H.2.b) superintendent, position of <i>equivalent</i> responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position) and, c. The written authorization shall include the name, title and signature of the authorized representative and be attached to the SWPPP. 3. All inspection reports shall be signed by the <i>qualified inspector</i> that performs the inspection. 4. The MS4 SWPPP Acceptance form shall be signed by the principal executive officer or ranking elected official from the <i>regulated, traditional land use control MS4</i>, or by a duly authorized representative of that person. It shall constitute a permit violation if an incorrect and/or improper signature authorizes any required forms, SWPPP and/or inspection reports. I. Property Rights The issuance of this permit does not convey any property rights of any sort, nor any exclusive privileges, nor does it authorize any injury to private property nor any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations. <i>Owners or operators</i> must obtain any applicable conveyances, easements, licenses and/or access to real property prior to <i>commencing construction activity</i>. J. Severability The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby. K. Requirement to Obtain Coverage Under an Alternative Permit 1. The Department may require any owner or operator authorized by this permit to apply for and/or obtain either an individual SPDES permit or another SPDES general permit. When the Department requires any discharger authorized by a general permit to apply for an individual SPDES permit, it shall notify the discharger in writing that a permit application is required. This notice shall	(Part VII.K.1) include a brief statement of the reasons for this decision, an application form, a statement setting a time frame for the owner or operator to file the application for an individual SPDES permit, and a deadline, not sooner than 180 days from owner or operator receipt of the notification letter, whereby the authorization to discharge under this general permit shall be terminated. Applications must be submitted to the appropriate Permit Administrator at the Regional Office. The Department may grant additional time upon demonstration, to the satisfaction of the Department, that additional time to apply for an alternative authorization is necessary or where the Department has not provided a permit determination in accordance with Part 62.1 of this Title. 2. When an individual SPDES permit is issued to a discharger authorized to discharge under a general SPDES permit for the same discharge(s), the general permit authorization for outfalls authorized under the individual SPDES permit is automatically terminated on the effective date of the individual permit unless termination is earlier in accordance with 6 NYCRR Part 750. L. Proper Operation and Maintenance The <i>owner or operator</i> shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the <i>owner or operator</i> to achieve compliance with the conditions of this permit and with the requirements of the SWPPP. M. Inspection and Entry The <i>owner or operator</i> shall allow an authorized representative of the Department, EPA, applicable county health department, or, in the case of a <i>construction site</i> which discharges through an <i>MS4</i>, an authorized representative of the <i>MS4</i> receiving the discharge, upon the presentation of credentials and other documents as may be required by law, to: 1. Enter upon the owner's or operator's premises where a regulated facility or activity is located or conducted or where records must be kept under the conditions of this permit; 2. Have access to and copy at reasonable times, any records that must be kept under the conditions of this permit, and
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(Part VII.M.3) 3. Inspected at reasonable times any facilities or equipment (including monitoring and control equipment), practices or operations regulated or required by this permit. 4. Sample or monitor at reasonable times, for purposes of assuring permit compliance or as otherwise authorized by the Act or ECL, any substances or parameters at any location. N. Permit Actions This permit may, at any time, be modified, suspended, revoked, or renewed by the Department in accordance with 6 NYCRR Part 621. The filing of a request by the owner or operator for a permit modification, revocation and reissuance, termination, a notification of planned changes or anticipated noncompliance does not limit, diminish and/or stay compliance with any terms of this permit. O. Definitions Definitions of key terms are included in Appendix A of this permit. P. Re-Opener Clause 1. If there is evidence indicating potential or realized impacts on water quality due to any stormwater discharge associated with construction activity covered by this permit, the owner or operator of such discharge may be required to obtain an individual permit or alternative general permit in accordance with Part VII.K. of this permit or the permit may be modified to include different limitations and/or requirements. 2. Any Department initiated permit modification, suspension or revocation will be conducted in accordance with 6 NYCRR Part 621, 6 NYCRR 750-1.18, and 6 NYCRR 750-1.20. Q. Penalties for Falsification of Forms and Reports In accordance with 6 NYCRR Part 750-2.4 and 750-2.5, any person who knowingly makes any false material statement, representation, or certification in any application, record, report or other document filed or required to be maintained under this permit, including reports of compliance or noncompliance shall, upon conviction, be punished in accordance with ECL §71-1933 and or Articles 175 and 210 of the New York State Penal Law.	(Part VII.R) R. Other Permits Nothing in this permit relieves the owner or operator from a requirement to obtain any other permits required by law.
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APPENDIX A – Acronyms and Definitions Acronyms APO – Agency Preservation Officer BMP – Best Management Practice CPESC – Certified Professional in Erosion and Sediment Control Cwp – Channel Protection Volume CWA – Clean Water Act (or the Federal Water Pollution Control Act, 33 U.S.C. §1251 et seq) DOW – Division of Water EAF – Environmental Assessment Form ECI - Environmental Conservation Law EPA – U. S. Environmental Protection Agency HSG – Hydrologic Soil Group MS4 – Municipal Separate Storm Sewer System NOI – Notice of Intent NOT – Notice of Termination NPDES – National Pollutant Discharge Elimination System OPRHP – Office of Parks, Recreation and Historic Places Of – Extreme Flood Op – Overbank Flood RRV – Runoff Reduction Volume RWE – Regional Water Engineer SEORA – State Environmental Quality Review SEORA - State Environmental Quality Review Act SHPA – State Historic Preservation Act SPDES – State Pollutant Discharge Elimination System SWPPP – Stormwater Pollution Prevention Plan TMDL – Total Maximum Daily Load UPA – Uniform Procedures Act USDA – United States Department of Agriculture WQV – Water Quality Volume	Appendix A Definitions <u>All definitions in this section are solely for the purposes of this permit.</u> Agricultural Building – a structure designed and constructed to house farm implements, hay, grain, poultry, livestock or other horticultural products, excluding any structure designed, constructed or used, in whole or in part, for human habitation, as a place of employment where agricultural products are processed, treated or packaged, or as a place used by the public. Agricultural Property – means the land for construction of a barn, agricultural building, silo, stockyard, pen or other structural practices identified in Table II in the "Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State" prepared by the Department in cooperation with agencies of New York Nonpoint Source Coordinating Committee (dated June 2007). After Hydrology from Pre to Post-Development Conditions - means the post-development peak flow rate(s) has increased by more than 5% of the pre-developed condition for the design storm of interest (e.g. 10 yr and 100 yr). Combined Sewer - means a sewer that is designed to collect and convey both "sewage" and "stormwater". Commence (Commencement of) Construction Activities - means the initial disturbance of soils associated with clearing, grading or excavation activities; or other construction related activities that disturb or expose soils such as demolition, stockpiling of fill material, and the initial installation of erosion and sediment control practices required in the SWPPP. See definition for "Construction Activity(ies)" also. Construction Activity(ies) - means any clearing, grading, excavation, filling, demolition or stockpiling activities that result in soil disturbance. Clearing activities can include, but are not limited to, logging equipment operation, the cutting and skidding of trees, stump removal and/or brush root removal. Construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility. Construction Site – means the land area where construction activity(ies) will occur. See definition for "Commence (Commencement of) Construction Activities" and "Larger Common Plan of Development or Sale" also. Dewatering – means the act of draining rainwater and/or groundwater from building foundations, vaults or excavations/trenches. Direct Discharge (to a specific surface waterbody) - means that runoff flows from a construction site by overland flow and the first point of discharge is the specific surface waterbody, or runoff flows from a construction site to a separate storm sewer system
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Appendix A and the first point of discharge from the separate storm sewer system is the specific surface waterbody. Discharge(s) - means any addition of any pollutant to waters of the State through an outlet or <i>point source</i>. Embankment –means an earthen or rock slope that supports a road/highway. Endangered or Threatened Species – see 6 NYCRR Part 182 of the Department's rules and regulations for definition of terms and requirements. Environmental Conservation Law (ECL) - means chapter 43-B of the Consolidated Laws of the State of New York, entitled the Environmental Conservation Law. Equivalent (Equivalence) – means that the practice or measure meets all the performance, longevity, maintenance, and safety objectives of the technical standard and will provide an equal or greater degree of water quality protection. Final Stabilization - means that all soil disturbance activities have ceased and a uniform, perennial vegetative cover with a density of eighty (80) percent over the entire pervious surface has been established; or other equivalent stabilization measures, such as permanent landscape mulches, rock rip-rap or washed/crushed stone have been applied on all disturbed areas that are not covered by permanent structures, concrete or pavement. General SPDES permit - means a SPDES permit issued pursuant to 6 NYCRR Part 750-1.21 and Section 70-0117 of the ECL authorizing a category of discharges. Groundwater(s) - means waters in the saturated zone. The saturated zone is a subsurface zone in which all the interstices are filled with water under pressure greater than that of the atmosphere. Although the zone may contain gas-filled interstices or interstices filled with fluids other than water, it is still considered saturated. Historic Property – means any building, structure, site, object or district that is listed on the State or National Registers of Historic Places or is determined to be eligible for listing on the State or National Registers of Historic Places. Impermeous Area (Cover) - means all impermeable surfaces that cannot effectively infiltrate rainfall. This includes paved, concrete and gravel surfaces (i.e. parking lots, driveways, roads, runways and sidewalks); building rooftops and miscellaneous impermeable structures such as patios, pools, and sheds. Infeasible – means not technologically possible, or not economically practicable and achievable in light of best industry practices.	Appendix A Larger Common Plan of Development or Sale - means a contiguous area where multiple separate and distinct <i>construction activities</i> are occurring, or will occur, under one plan. The term "plan" in "larger common plan of development or sale" is broadly defined as any announcement or piece of documentation (including a sign, public notice or hearing, marketing plan, advertisement, drawing, permit application, State Environmental Quality Review Act (SEQRA) environmental assessment form or other documents, zoning request, computer design, etc.) or physical demarcation (including boundary signs, lot stakes, surveyor markings, etc.) indicating that <i>construction activities</i> may occur on a specific plot. For discrete construction projects that are located within a larger common plan of development or sale that are at least 1/4 mile apart, each project can be treated as a separate plan of development or sale provided any interconnecting road, pipeline or utility project that is part of the same "common plan" is not concurrently being disturbed. Minimize – means reduce and/or eliminate to the extent achievable using control measures (including best management practices) that are technologically available and economically practicable and achievable in light of best industry practices. Municipal Separate Storm Sewer (MS4) - a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains); (i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to surface waters of the State; (ii) Designed or used for collecting or conveying stormwater; (iii) Which is not a <i>combined sewer</i>; and (iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2. National Pollutant Discharge Elimination System (NPDES) - means the national system for the issuance of wastewater and stormwater permits under the Federal Water Pollution Control Act (Clean Water Act). Natural Buffer –means an undisturbed area with natural cover running along a surface water (e.g. wetland, stream, river, lake, etc.). New Development – means any land disturbance that does not meet the definition of Redevelopment Activity included in this appendix.
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Appendix A New York State Erosion and Sediment Control Certificate Program – a certificate program that establishes and maintains a process to identify and recognize individuals who are capable of developing, designing, inspecting and maintaining erosion and sediment control plans on projects that disturb soils in New York State. The certificate program is administered by the New York State Conservation District Employees Association. NOI Acknowledgment Letter - means the letter that the Department sends to an owner or operator to acknowledge the Department's receipt and acceptance of a complete Notice of Intent. This letter documents the owner's or operator's authorization to discharge in accordance with the general permit for stormwater discharges from <i>construction activity</i>. Nonpoint Source - means any source of water pollution or pollutants which is not a discrete conveyance or <i>point source</i> permitted pursuant to Title 7 or 8 of Article 17 of the Environmental Conservation Law (see ECL Section 17-1403). Overbank –means flow events that exceed the capacity of the stream channel and spill out into the adjacent floodplain. Owner or Operator - means the person, persons or legal entity which owns or leases the property on which the <i>construction activity</i> is occurring, an entity that has operational control over the construction plans and specifications, including the ability to make modifications to the plans and specifications; and/or an entity that has day-to-day operational control of those activities at a project that are necessary to ensure compliance with the permit conditions. Performance Criteria – means the design criteria listed under the "Required Elements" sections in Chapters 5, 6 and 10 of the technical standard, New York State Stormwater Management Design Manual, dated January 2015. It does not include the Sizing Criteria (i.e. WQV, RRV, Cpv, Op and Of) in Part I.C.2. of the permit. Point Source - means any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, vessel or other floating craft, or landfill leachate collection system from which <i>pollutants</i> are or may be discharged. Pollutant - means dredged spoil, filter backwash, solid waste, incinerator residue, sewage, garbage, sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand and industrial, municipal, agricultural waste and ballast discharged into water, which may cause or might reasonably be expected to cause pollution of the waters of the state in contravention of the standards or guidance values adopted as provided in 6 NYCRR Parts 700 et seq .	Appendix A Qualified Inspector - means a person that is knowledgeable in the principles and practices of erosion and sediment control, such as a licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, New York State Erosion and Sediment Control Certificate Program holder or other Department endorsed individual(s). It can also mean someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided that person has training in the principles and practices of erosion and sediment control. Training in the principles and practices of erosion and sediment control means that the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect has received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect shall receive four (4) hours of training every three (3) years. It can also mean a person that meets the <i>Qualified Professional</i> qualifications in addition to the <i>Qualified Inspector</i> qualifications. Note: Inspections of any post-construction stormwater management practices that include structural components, such as a dam for an impoundment, shall be performed by a licensed Professional Engineer. Qualified Professional - means a person that is knowledgeable in the principles and practices of stormwater management and treatment, such as a licensed Professional Engineer, Registered Landscape Architect or other Department endorsed individual(s). Individuals preparing SWPPPs that require the post-construction stormwater management practice component must have an understanding of the principles of hydrology, water quality management practice design, water quantity control design, and, in many cases, the principles of hydraulics. All components of the SWPPP that involve the practice of engineering, as defined by the NYS Education Law (see Article 145), shall be prepared by or under the direct supervision of a professional engineer licensed to practice in the State of New York. Redevelopment Activity(ies) – means the disturbance and reconstruction of existing impervious area, including impervious areas that were removed from a project site within five (5) years of preliminary project plan submission to the local government (i.e. site plan, subdivision, etc.). Regulated, Traditional Land Use Control MS4 - means a city, town or village with land use control authority that is authorized to discharge under New York State DEC's
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Appendix A SPDES General Permit For Stormwater Discharges from Municipal Separate Stormwater Sewer Systems (MS4s) or the City of New York's Individual SPDES Permit for their Municipal Separate Storm Sewer Systems (NY-0287890). Routine Maintenance Activity - means <i>construction activity</i> that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility, including, but not limited to: ▪ Re-grading of gravel roads or parking lots, ▪ Cleaning and shaping of existing roadside ditches and culverts that maintains the approximate original line and grade, and hydraulic capacity of the ditch, ▪ Cleaning and shaping of existing roadside ditches that does not maintain the approximate original grade, hydraulic capacity and purpose of the ditch if the changes to the line and grade, hydraulic capacity or purpose of the ditch are installed to improve water quality and quantity controls (e.g. installing grass lined ditch), ▪ Placement of aggregate shoulder backing that stabilizes the transition between the road shoulder and the ditch or <i>embankment</i>, ▪ Full depth milling and filling of existing asphalt pavements, replacement of concrete pavement slabs, and similar work that does not expose soil or disturb the bottom six (6) inches of subbase material, ▪ Long-term use of equipment storage areas at or near highway maintenance facilities, ▪ Removal of sediment from the edge of the highway to restore a previously existing sheet-flow drainage connection from the highway surface to the highway ditch or <i>embankment</i>, ▪ Existing use of Canal Corp owned upland disposal sites for the canal, and ▪ Replacement of curbs, gutters, sidewalks and guide rail posts. Site limitations – means site conditions that prevent the use of an infiltration technique and or infiltration of the total WQV. Typical site limitations include: seasonal high groundwater, shallow depth to bedrock, and soils with an infiltration rate less than 0.5 inches/hour. The existence of site limitations shall be confirmed and documented using actual field testing (i.e. test pits, soil borings, and infiltration test) or using information from the most current United States Department of Agriculture (USDA) Soil Survey for the County where the project is located. Sizing Criteria – means the criteria included in Part I.C.2 of the permit that are used to size post-construction stormwater management control practices. The criteria include: Water Quality Volume (WQV), Runoff Reduction Volume (RRV), Channel Protection Volume (CPV), Overbank Flood (Op), and Extreme Flood (Ef). State Pollutant Discharge Elimination System (SPDES) - means the system established pursuant to Article 17 of the ECL and 6 NYCRR Part 750 for issuance of permits authorizing discharges to the waters of the state.	Appendix A Steep Slope – means land area designated on the current United States Department of Agriculture ("USDA") Soil Survey as Soil Slope Phase "D", (provided the map unit name is inclusive of slopes greater than 25%), or Soil Slope Phase E or F, (regardless of the map unit name), or a combination of the three designations. Streambank – as used in this permit, means the terrain alongside the bed of a creek or stream. The bank consists of the sides of the channel, between which the flow is confined. Stormwater Pollution Prevention Plan (SWPPP) – means a project specific report, including construction drawings, that among other things: describes the construction activity(ies), identifies the potential sources of pollution at the construction site; describes and shows the stormwater controls that will be used to control the pollutants (i.e. erosion and sediment controls; for many projects, includes post-construction stormwater management controls); and identifies procedures the owner or operator will implement to comply with the terms and conditions of the permit. See Part III of the permit for a complete description of the information that must be included in the SWPPP. Surface Waters of the State - shall be construed to include lakes, bays, sounds, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Atlantic ocean within the territorial seas of the state of New York and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, public or private (except those private waters that do not combine or effect a junction with natural surface waters), which are wholly or partially within or bordering the state or within its jurisdiction. Waters of the state are further defined in 6 NYCRR Parts 800 to 941. Temporarily Ceased – means that an existing disturbed area will not be disturbed again within 14 calendar days of the previous soil disturbance. Temporary Stabilization - means that exposed soil has been covered with material(s) as set forth in the technical standard, New York Standards and Specifications for Erosion and Sediment Control, to prevent the exposed soil from eroding. The materials can include, but are not limited to, mulch, seed and mulch, and erosion control mats (e.g. jute twisted yarn, excelsior wood fiber mats). Total Maximum Daily Loads (TMDLs) - A TMDL is the sum of the allowable loads of a single pollutant from all contributing point and <i>nonpoint</i> sources. It is a calculation of the maximum amount of a pollutant that a waterbody can receive on a daily basis and still meet <i>water quality standards</i>, and an allocation of that amount to the pollutant's sources. A TMDL stipulates wastedload allocations (WLA) for <i>point</i> source discharges, load allocations (LA) for <i>nonpoint</i> sources, and a margin of safety (MOS). Trained Contractor - means an employee from the contracting (construction) company, identified in Part III.A.6., that has received four (4) hours of Department endorsed
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Appendix A

training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the *trained contractor* shall receive four (4) hours of training every three (3) years.

It can also mean an employee from the contracting (construction) company, identified in Part III.A.6., that meets the *qualified inspector* qualifications (e.g., licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, New York State Erosion and Sediment Control Certificate Program holder, or someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity).

The *trained contractor* is responsible for the day to day implementation of the SWPPP.

Uniform Procedures Act (UPA) Permit - means a permit required under 6 NYCRR Part 62.1 of the Environmental Conservation Law (ECL), Article 70.

Water Quality Standard - means such measures of purity or quality for any waters in relation to their reasonable and necessary use as promulgated in 6 NYCRR Part 700 et seq.

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APPENDIX B – Required SWPPP Components by Project Type

Table 1
Construction Activities that Require the Preparation of a SWPPP That Only Includes Erosion and Sediment Controls

The following construction activities that involve soil disturbances of one (1) or more acres of land, but less than five (5) acres: • Single family home <i>rdg</i> located in one of the watersheds listed in Appendix C or <i>rdg</i> directly discharging to one of the 303(d) segments listed in Appendix E • Single family residential subdivisions with 25% or less impervious cover at total site build-out and <i>rdg</i> located in one of the watersheds listed in Appendix C and <i>rdg</i> directly discharging to one of the 303(d) segments listed in Appendix E • Construction of a barn or other <i>agricultural building</i>, silo, stock yard or pen.
The following construction activities that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land: All construction activities located in the watersheds identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.
The following construction activities that involve soil disturbances of one (1) or more acres of land: • Installation of underground, linear utilities, such as gas lines, fiber-optic cable, cable TV, electric, telephone, sewer mains, and water mains • Environmental assessment projects, such as wetland mitigation projects, stormwater retrofits and stream restoration projects • Pond construction • Linear bike paths running through areas with vegetative cover, including bike paths surfaced with an impervious cover • Cross-country ski trails and walking/hiking trails • Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are not part of residential, commercial or institutional development • Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that include incidental shoulder or curb work along an existing highway to support construction of the sidewalk, bike path or walking path. • Slope stabilization projects • Slope flattening that changes the grade of the site, but does not significantly change the runoff characteristics

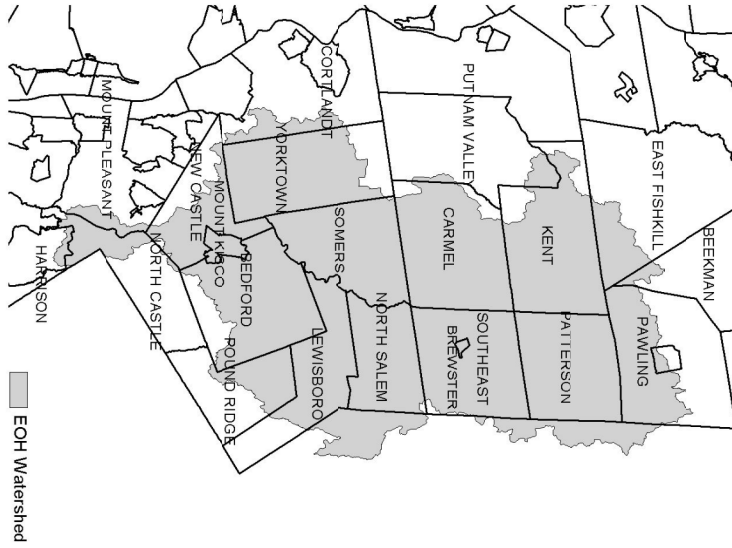
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Appendix B Table 1 (Continued) CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP THAT ONLY INCLUDES EROSION AND SEDIMENT CONTROLS The following construction activities that involve soil disturbances of one (1) or more acres of land: • Spoil areas that will be covered with vegetation • Vegetated open space projects (i.e. recreational parks, lawns, meadows, fields, downhill ski trails) excluding projects that <i>alter hydrology from pre to post development</i> conditions. • Athletic fields (natural grass) that do not include the construction or reconstruction of <i>imperVIOUS</i> area and do not <i>alter hydrology from pre to post development</i> conditions • Demolition project where vegetation will be established, and no redevelopment is planned • Overhead electric transmission line project that does not include the construction of permanent access roads or parking areas surfaced with <i>imperVIOUS</i> cover • Structural practices as identified in Table II in the "Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State", excluding projects that involve soil disturbances of greater than five acres and construction activities that include the construction or reconstruction of <i>imperVIOUS</i> area • Temporary access roads, median crossovers, detour roads, lanes, or other temporary <i>imperVIOUS</i> areas that will be restored to pre-construction conditions once the construction activity is complete	Appendix B Table 2 CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP THAT INCLUDES POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES The following construction activities that involve soil disturbances of one (1) or more acres of land: • Single family home located in one of the watersheds listed in Appendix C or <i>directly discharging</i> to one of the 303(d) segments listed in Appendix E • Single family home that disturbs five (5) or more acres of land • Single family residential subdivisions located in one of the watersheds listed in Appendix C or <i>directly discharging</i> to one of the 303(d) segments listed in Appendix E • Single family residential subdivisions that involve soil disturbances of between one (1) and five (5) acres of land with greater than 25% <i>imperVIOUS</i> cover at total site build-out • Single family residential subdivisions that involve soil disturbances of five (5) or more acres of land, and single family residential subdivisions that involve soil disturbances of less than five (5) acres that are part of a larger common plan of development or sale that will ultimately disturb five or more acres of land • Multi-family residential developments; includes duplexes, townhomes, condominiums, senior housing complexes, apartment complexes, and mobile home parks • Hotels • Amusement parks • Breweries, disteries, and wineries, including establishments constructed on agricultural land • Campgrounds • Cemeteries that include the construction or reconstruction of <i>imperVIOUS</i> area (>5% of disturbed area) or <i>after the hydrology from pre to post development</i> conditions • Commercial developments • Churches and other places of worship • Construction of a barn or other <i>agricultural building</i> (e.g. silo) and structural practices as identified in Table II in the "Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State" that include the construction or reconstruction of <i>imperVIOUS</i> area, excluding projects that involve soil disturbances of less than five acres. • Golf courses • Institutional development; includes hospitals, prisons, schools and colleges • Industrial facilities; includes industrial parks • Landfills • Municipal facilities; includes highway garages, transfer stations, office buildings, POTW's, water treatment plants, and water storage tanks • Office complexes • Playgrounds that include the construction or reconstruction of <i>imperVIOUS</i> area • Sports complexes • Race tracks; includes racetracks with earthen (dirt) surface • Road construction or reconstruction, including roads constructed as part of the construction activities listed in Table 1
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Appendix B Table 2 (Continued) CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP THAT INCLUDES POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES The following construction activities that involve soil disturbances of one (1) or more acres of land: • Parking lot construction or reconstruction, including parking lots constructed as part of the construction activities listed in Table 1 • Athletic fields (natural grass) that include the construction or reconstruction of impervious area (>5% of disturbed area) or alter the hydrology from pre to post development conditions • Athletic fields with artificial turf • Permanent access roads, parking areas, substations, compressor stations and well drilling pads, surfaced with impervious cover, and constructed as part of an over-head electric transmission line project, wind-power project, cell tower project, oil or gas well drilling project, sewer or water main project, or other linear utility project • Sports fields, including baseball fields, surfaced with an impervious cover, that are part of a school, municipal, or recreational development • Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are part of a highway construction or reconstruction project • All other construction activities that include the construction or reconstruction of impervious area or alter the hydrology from pre to post development conditions, and are not listed in Table 1	APPENDIX C – Watersheds Requiring Enhanced Phosphorus Removal Watersheds where owners or operators of construction activities identified in Table 2 of Appendix B must prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the Enhanced Phosphorus Removal Standards included in the technical standard, New York State Stormwater Management Design Manual ("Design Manual"). • Entire New York City Watershed located east of the Hudson River - Figure 1 • Orondaga Lake Watershed - Figure 2 • Greenwood Lake Watershed - Figure 3 • Oscawana Lake Watershed - Figure 4 • Kinderhook Lake Watershed - Figure 5
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Figure 1 - New York City Watershed East of the Hudson

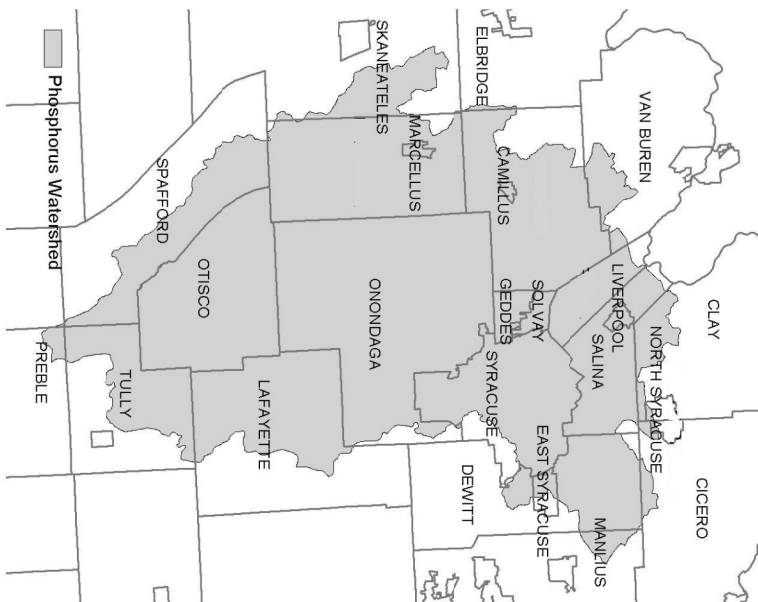
Appendix C



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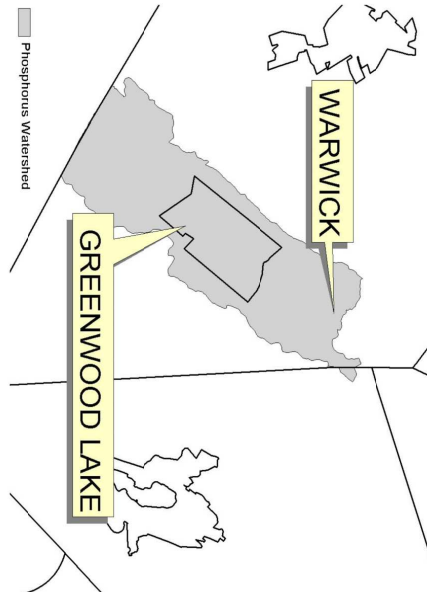
Figure 2 - Onondaga Lake Watershed

Appendix C



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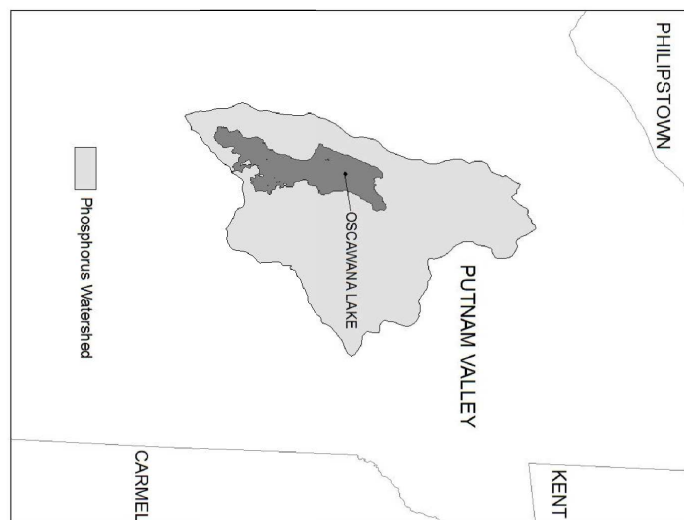
Figure 3 - Greenwood Lake Watershed



Appendix C

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Figure 4 - Oscawana Lake Watershed

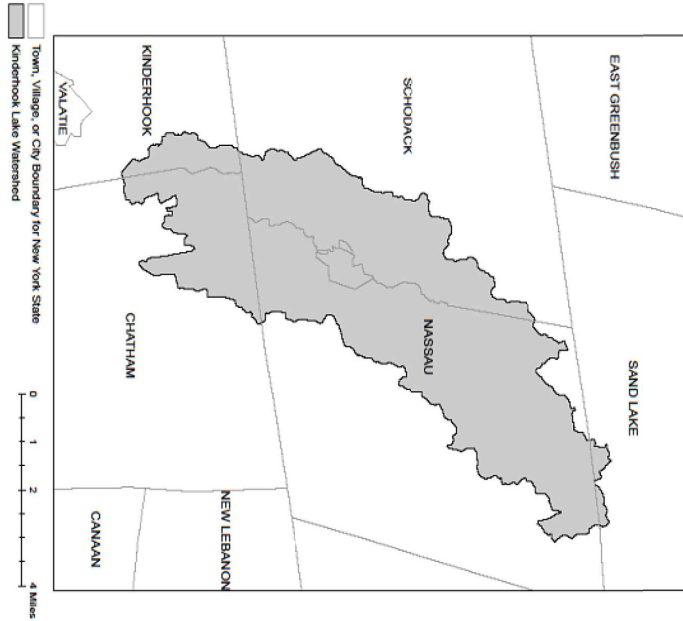


Appendix C

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Figure 5 - Kinderhook Lake Watershed

Appendix C



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APPENDIX D – Watersheds with Lower Disturbance Threshold

Watersheds where owners or operators of construction activities that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land must obtain coverage under this permit.

Entire New York City Watershed that is located east of the Hudson River - See Figure 1 in Appendix C

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APPENDIX E – 303(d) Segments Impaired by Construction Related Pollutant(s)

List of 303(d) segments impaired by pollutants related to *construction activity* (e.g. silt, sediment or nutrients). The list was developed using The Final New York State 2016 Section 303(d) List of Impaired Waters Requiring a TMDL/Other Strategy, dated November 2016. *Owners or operators of single family home and single family residential subdivisions with 25% or less total impervious cover at total site build-out that involve soil disturbances of one or more acres of land, but less than 5 acres, and directly discharge to one of the listed segments below shall prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the New York State Stormwater Management Design Manual ("Design Manual"), dated January 2015.*

COUNTY	WATERBODY	POLLUTANT
Albany	Ann Lee (Shakers) Pond, Stump Pond	Nutrients
Albany	Basic Creek Reservoir	Nutrients
Allegany	Amity Lake, Saunders Pond	Nutrients
Bronx	Long Island Sound, Bronx	Nutrients
Bronx	Van Cortlandt Lake	Nutrients
Broome	Fly Pond, Deer Lake, Sky Lake	Nutrients
Broome	Minor Tribs to Lower Susquehanna (north)	Nutrients
Broome	Whitney Point Lake/Reservoir	Nutrients
Cattaraugus	Allegheny River/Reservoir	Nutrients
Cattaraugus	Beaver (Alma) Lake	Nutrients
Cattaraugus	Case Lake	Nutrients
Cattaraugus	Linkco/Club Pond	Nutrients
Cayuga	Duck Lake	Nutrients
Cayuga	Little Sodus Bay	Nutrients
Chautauqua	Bear Lake	Nutrients
Chautauqua	Chadakoin River and tribs	Nutrients
Chautauqua	Chautauqua Lake, North	Nutrients
Chautauqua	Chautauqua Lake, South	Nutrients
Chautauqua	Findley Lake	Nutrients
Chautauqua	Hulburt/Clymer Pond	Nutrients
Clinton	Great Chazy River, Lower, Main Stem	Silt/Sediment
Clinton	Lake Champlain, Main Lake, Middle	Nutrients
Clinton	Lake Champlain, Main Lake, North	Nutrients
Columbia	Kinderhook Lake	Nutrients
Columbia	Robinson Pond	Nutrients
Cortland	Dean Pond	Nutrients

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303(d) Segments Impaired by Construction Related Pollutant(s)

Dutchess	Fall Kill and tribs	Nutrients
Dutchess	Hillside Lake	Nutrients
Dutchess	Wappingers Lake	Nutrients
Dutchess	Wappingers Lake	Silt/Sediment
Erie	Beeman Creek and tribs	Nutrients
Erie	Ellicott Creek, Lower, and tribs	Silt/Sediment
Erie	Ellicott Creek, Lower, and tribs	Nutrients
Erie	Green Lake	Nutrients
Erie	Little Sister Creek, Lower, and tribs	Nutrients
Erie	Murder Creek, Lower, and tribs	Nutrients
Erie	Rush Creek and tribs	Nutrients
Erie	Scaliquada Creek, Lower, and tribs	Nutrients
Erie	Scaliquada Creek, Middle, and tribs	Nutrients
Erie	Scaliquada Creek, Upper, and tribs	Nutrients
Erie	South Branch Smoke Cr, Lower, and tribs	Silt/Sediment
Erie	South Branch Smoke Cr, Lower, and tribs	Nutrients
Essex	Lake Champlain, Main Lake, South	Nutrients
Essex	Lake Champlain, South Lake	Nutrients
Essex	Willisboro Bay	Nutrients
Genesee	Bigelow Creek and tribs	Nutrients
Genesee	Black Creek, Middle, and minor tribs	Nutrients
Genesee	Black Creek, Upper, and minor tribs	Nutrients
Genesee	Bowen Brook and tribs	Nutrients
Genesee	LeRoy Reservoir	Nutrients
Genesee	Oak Orchard Cr, Upper, and tribs	Nutrients
Genesee	Tonawanda Creek, Middle, Main Stem	Nutrients
Greene	Schoharie Reservoir	Silt/Sediment
Greene	Sleepy Hollow Lake	Silt/Sediment
Herkimer	Steele Creek tribs	Silt/Sediment
Herkimer	Steele Creek tribs	Nutrients
Jefferson	Moon Lake	Nutrients
Kings	Hendrix Creek	Nutrients
Kings	Prospect Park Lake	Nutrients
Lewis	Mill Creek/South Branch, and tribs	Nutrients
Livingston	Christie Creek and tribs	Nutrients
Livingston	Conesus Lake	Nutrients
Livingston	Mill Creek and minor tribs	Silt/Sediment
Monroe	Black Creek, Lower, and minor tribs	Nutrients
Monroe	Buck Pond	Nutrients
Monroe	Cranberry Pond	Nutrients

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303(d) Segments Impaired by Construction Related Pollutant(s)		
Monroe	Lake Ontario Shoreline, Western	Nutrients
Monroe	Long Pond	Nutrients
Monroe	Mill Creek and tribs	Nutrients
Monroe	Mill Creek/Blue Pond Outlet and tribs	Nutrients
Monroe	Minor Tribs to Irondequoit Bay	Nutrients
Monroe	Rochester Embayment - East	Nutrients
Monroe	Rochester Embayment - West	Nutrients
Monroe	Shipbuilders Creek and tribs	Nutrients
Monroe	Thomas Creek/White Brook and tribs	Nutrients
Nassau	Beaver Lake	Nutrients
Nassau	Canaans Pond	Nutrients
Nassau	East Meadow Brook, Upper, and tribs	Silt/Sediment
Nassau	East Rockaway Channel	Nutrients
Nassau	Grant Park Pond	Nutrients
Nassau	Hempstead Bay	Nutrients
Nassau	Hempstead Lake	Nutrients
Nassau	Hewlett Bay	Nutrients
Nassau	Hog Island Channel	Nutrients
Nassau	Long Island Sound, Nassau County Waters	Nutrients
Nassau	Massapequa Creek and tribs	Nutrients
Nassau	Millburn/Parsonage Creeks, Up, and tribs	Nutrients
Nassau	Reynolds Channel, west	Nutrients
Nassau	Tidal Tribs to Hempstead Bay	Nutrients
Nassau	Tribs (fresh) to East Bay	Nutrients
Nassau	Tribs (fresh) to East Bay	Silt/Sediment
Nassau	Tribs to Smith/Halls Ponds	Nutrients
Nassau	Woodmore Channel	Nutrients
New York	Hartem Meer	Nutrients
New York	The Lake in Central Park	Nutrients
Niagara	Bergholtz Creek and tribs	Nutrients
Niagara	Hyde Park Lake	Nutrients
Niagara	Lake Ontario Shoreline, Western	Nutrients
Niagara	Lake Ontario Shoreline, Western	Nutrients
Orinda	Bailou, Nail Creeks and tribs	Nutrients
Orinda	Harbor Brook, Lower, and tribs	Nutrients
Orinda	Ley Creek and tribs	Nutrients
Orinda	Minor Tribs to Orinda Lake	Nutrients
Orinda	Ninemile Creek, Lower, and tribs	Nutrients
Orinda	Orinda Creek, Lower, and tribs	Nutrients
Orinda	Orinda Creek, Middle, and tribs	Nutrients

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303(d) Segments Impaired by Construction Related Pollutant(s)		
Orinda	Orinda Lake, northern end	Nutrients
Orinda	Orinda Lake, southern end	Nutrients
Orinda	Great Brook and minor tribs	Silt/Sediment
Orinda	Great Brook and minor tribs	Nutrients
Orinda	Hemlock Lake Outlet and minor tribs	Nutrients
Orinda	Hurricane Lake	Nutrients
Orinda	Greenwood Lake	Nutrients
Orinda	Monahgan Brook and tribs	Nutrients
Orinda	Orange Lake	Nutrients
Orinda	Lake Ontario Shoreline, Western	Nutrients
Orinda	Lake Ontario Shoreline, Western	Nutrients
Oswego	Lake Neahawana	Nutrients
Oswego	Pleasant Lake	Nutrients
Putnam	Bog Brook Reservoir	Nutrients
Putnam	Boyd Corners Reservoir	Nutrients
Putnam	Croton Falls Reservoir	Nutrients
Putnam	Diverting Reservoir	Nutrients
Putnam	East Branch Reservoir	Nutrients
Putnam	Lake Carmel	Nutrients
Putnam	Middle Branch Reservoir	Nutrients
Putnam	Oscawana Lake	Nutrients
Putnam	Palmer Lake	Nutrients
Putnam	West Branch Reservoir	Nutrients
Queens	Bergen Basin	Nutrients
Queens	Flushing Creek/Bay	Nutrients
Queens	Jamaica Bay, Eastern, and tribs (Queens)	Nutrients
Queens	Kissena Lake	Nutrients
Queens	Meadow Lake	Nutrients
Queens	Willow Lake	Nutrients
Rensselaer	Nassau Lake	Nutrients
Rensselaer	Snyders Lake	Nutrients
Richmond	Grasmere Lake/Bradys Pond	Nutrients
Rockland	Congers Lake, Swatout Lake	Nutrients
Rockland	Rockland Lake	Nutrients
Saratoga	Bailston Lake	Nutrients
Saratoga	Dwaas Kill and tribs	Silt/Sediment
Saratoga	Dwaas Kill and tribs	Nutrients
Saratoga	Lake Lonely	Nutrients
Saratoga	Round Lake	Nutrients
Saratoga	Tribs to Lake Lonely	Nutrients

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303(d) Segments Impaired by Construction Related Pollutant(s)

Schenectady	Collins Lake	Nutrients
Schenectady	Duane Lake	Nutrients
Schenectady	Marlville Lake	Nutrients
Schoharie	Engleville Pond	Nutrients
Schoharie	Summit Lake	Nutrients
Seneca	Reeder Creek and tribs	Nutrients
St.Lawrence	Black Lake Outlet/Black Lake	Nutrients
St.Lawrence	Fish Creek and minor tribs	Nutrients
Steuben	Smith Pond	Nutrients
Suffolk	Agawam Lake	Nutrients
Suffolk	Big/Little Fresh Ponds	Nutrients
Suffolk	Canaan Lake	Silt/Sediment
Suffolk	Canaan Lake	Nutrients
Suffolk	Flanders Bay, West/Lower Sawmill Creek	Nutrients
Suffolk	Fresh Pond	Nutrients
Suffolk	Great South Bay, East	Nutrients
Suffolk	Great South Bay, Middle	Nutrients
Suffolk	Great South Bay, West	Nutrients
Suffolk	Lake Ronkonkoma	Nutrients
Suffolk	Long Island Sound, Suffolk County, West	Nutrients
Suffolk	Mattituck (Maratooka) Pond	Nutrients
Suffolk	Meetinghouse/Terrys Creeks and tribs	Nutrients
Suffolk	Mill and seven Ponds	Nutrients
Suffolk	Millers Pond	Nutrients
Suffolk	Monches Bay, East	Nutrients
Suffolk	Monches Bay, West	Nutrients
Suffolk	Pecotic River, lower, and tidal tribs	Nutrients
Suffolk	Quantuck Bay	Nutrients
Suffolk	Shinnecock Bay and Inlet	Nutrients
Suffolk	Tidal tribs to West Monches Bay	Nutrients
Sullivan	Bodine, Montgomery Lakes	Nutrients
Sullivan	Daves Lake	Nutrients
Sullivan	Evens Lake	Nutrients
Sullivan	Pleasure Lake	Nutrients
Tompkins	Cayuga Lake, Southern End	Nutrients
Tompkins	Cayuga Lake, Southern End	Silt/Sediment
Tompkins	Owasco Inlet, Upper, and tribs	Nutrients
Ulster	Ashokan Reservoir	Silt/Sediment
Ulster	Esopus Creek, Upper, and minor tribs	Silt/Sediment
Warren	Hague Brook and tribs	Silt/Sediment

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303(d) Segments Impaired by Construction Related Pollutant(s)

Warren	Huddle/Finkle Brooks and tribs	Silt/Sediment
Warren	Indian Brook and tribs	Silt/Sediment
Warren	Lake George	Silt/Sediment
Warren	Tribs to L.George, Village of L.George	Silt/Sediment
Washington	Cossayuna Lake	Nutrients
Washington	Lake Champlain, South Bay	Nutrients
Washington	Tribs to L.George, East Shore	Silt/Sediment
Washington	Wood C/Champlain Canal and minor tribs	Nutrients
Wayne	Port Bay	Nutrients
Westchester	Annawalk Reservoir	Nutrients
Westchester	Blind Brook, Upper, and tribs	Silt/Sediment
Westchester	Cross River Reservoir	Nutrients
Westchester	Lake Katonah	Nutrients
Westchester	Lake Lincolnale	Nutrients
Westchester	Lake Meilagh	Nutrients
Westchester	Lake Mohagan	Nutrients
Westchester	Lake Shenorock	Nutrients
Westchester	Long Island Sound, Westchester (East)	Nutrients
Westchester	Mamaroneck River, Lower	Silt/Sediment
Westchester	Mamaroneck River, Upper, and minor tribs	Silt/Sediment
Westchester	Muscood/Upper New Croton Reservoir	Nutrients
Westchester	New Croton Reservoir	Nutrients
Westchester	Peach Lake	Nutrients
Westchester	Reservoir No.1 (Lake Isle)	Nutrients
Westchester	Saw Mill River, Lower, and tribs	Nutrients
Westchester	Saw Mill River, Middle, and tribs	Nutrients
Westchester	Sheldrake River and tribs	Silt/Sediment
Westchester	Sheldrake River and tribs	Nutrients
Westchester	Silver Lake	Nutrients
Westchester	Teatown Lake	Nutrients
Westchester	Titus Reservoir	Nutrients
Westchester	Truesdale Lake	Nutrients
Westchester	Wallace Pond	Nutrients
Wyoming	Java Lake	Nutrients
Wyoming	Silver Lake	Nutrients

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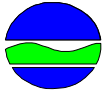
APPENDIX F – List of NYS DEC Regional Offices

Region	COVERING THE FOLLOWING COUNTIES: PERMIT ADMINISTRATORS	DIVISION OF ENVIRONMENTAL PERMITS (DEP)	DIVISION OF WATER (DOW) WATER (SPDES) PROGRAM
1	NASSAU AND SUFFOLK	50 CIRCLE ROAD SUFFERN, NY 11790 TEL. (631) 444-0065	50 CIRCLE ROAD SUFFERN, NY 11790-3409 TEL. (631) 444-0065
2	BROOK, KINGS, NEW YORK, QUEENS AND RICHMOND	1 Westport Bount Plaza, 47-40 21st St. LONG ISLAND CITY, NY 11101-5407 TEL. (718) 482-4997	1 Westport Bount Plaza, 47-40 21st St. LONG ISLAND CITY, NY 11101-5407 TEL. (718) 482-4933
3	DUTCHES, ORANGE, PUTNAM, ROCKLAND, SULLIVAN, ULSTER AND WESTCHESTER	21 South Platt Cornings Road New Paltz, NY 12561-1696 TEL. (845) 256-3099	100 HILLDALE AVENUE, SUITE 1W WHITE PLAINS, NY 10603 TEL. (914) 428 - 2905
4	ALBANY, COLUMBIA, DELAWARE, GREENE, MADISON, MONROE, RENSSELAER, SCHENECTADY AND SCHUYLER	1190 NORTH WESTCOTT ROAD SUFFERN, NY 11790-2014 TEL. (918) 357-2089	1190 NORTH WESTCOTT ROAD SUFFERN, NY 11790-2014 TEL. (918) 357-2045
5	CANTON, ESSAY, FRANKLIN, FULTON, HAMILTON, SARATOGA, SCHENECTADY AND WASHINGTON	1115 STATE ROUTE 86 PO Box 296 Ray Brook, NY 12977 0296 TEL. (518) 897-1234	232 GOLF COURSE ROAD WATERBURGH, NY 12886 1172 TEL. (518) 623-1200
6	HERKIMER, JEFFERSON, LEWIS, ONEIDA AND ST. LAWRENCE	STATE OFFICE BUILDING 317 WASHINGTON STREET WATERTOWN, NY 13601-3787 TEL. (315) 769-2495	STATE OFFICE BUILDING 207 GENESEE STREET UTICA, NY 13501-2885 TEL. (315) 795-6394
7	BROOME, CAYUGA, CHENANGO, COLUMBIA, MADISON, ONEIDA, OSWEGO, TIOGA AND TOMPkins	615 ERIE BLVD. WEST SYRACUSE, NY 13204-2400 TEL. (315) 428-7438	615 ERIE BLVD. WEST SYRACUSE, NY 13204-2400 TEL. (315) 428-7500
8	CHEMUNG, GENESEE, LIVINGSTON, MONROE, SCHUYLER, SENECA, STEUBEN, WAYNE AND Yates	6274 EAST AVON/LIMA ROAD/AVON, NY 14414-9519 TEL. (985) 226-2486	6274 EAST AVON/LIMA RD. AVON, NY 14414-9519 TEL. (985) 226-2486
9	ALLEGANY, CATTARAUGUS, CHEMUNG, ERIE, HUNTERDON, NIAGARA AND WYOMING	270 MICHIGAN AVENUE BUFFALO, NY 14203-2999 TEL. (716) 851-7165	270 MICHIGAN AVENUE BUFFALO, NY 14203-2999 TEL. (716) 851-7070

Appendix B:
NYSDEC Forms

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NOTICE OF INTENT

**New York State Department of Environmental Conservation
Division of Water**

**625 Broadway, 4th Floor
Albany, New York 12233-3505**

NYR
(for DEC use only)

**Stormwater Discharges Associated with Construction Activity Under State
Pollutant Discharge Elimination System (SPDES) General Permit # GP-0-20-001**

All sections must be completed unless otherwise noted. Failure to complete all items may result in this form being returned to you, thereby delaying your coverage under this General Permit. Applicants must read and understand the conditions of the permit and prepare a Stormwater Pollution Prevention Plan prior to submitting this NOI. Applicants are responsible for identifying and obtaining other DEC permits that may be required.

**- IMPORTANT -
RETURN THIS FORM TO THE ADDRESS ABOVE**

OWNER/OPERATOR MUST SIGN FORM

Owner/Operator Information

Owner/Operator (Company Name/Private Owner Name/Municipality Name)

U G F a m i l y , L L C

Owner/Operator Contact Person Last Name (NOT CONSULTANT)

U c c e l l i n i

Owner/Operator Contact Person First Name

M i c h a e l

Owner/Operator Mailing Address

3 0 0 J o r d a n R o a d

City

T r o y

State

N Y

Zip

1 2 1 8 0 -

Phone (Owner/Operator)

5 1 8 - 6 8 7 - 7 3 0 5

Fax (Owner/Operator)

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Email (Owner/Operator)

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FED TAX ID

- (not required for individuals)

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Project Site Information

Project/Site Name

The Apex at Crossgates

Street Address (NOT P.O. BOX)

Rapp Road

Side of Street

☐ North ☐ South ☐ East ☐ West

City/Town/Village (THAT ISSUES BUILDING PERMIT)

Guilderland

State Zip

NY 12203 -

County

Albany

DEC Region

4

Name of Nearest Cross Street

Gipp Road

Distance to Nearest Cross Street (Feet)

560

Project In Relation to Cross Street

☐ North ☒ South ☐ East ☐ WestTax Map Numbers
Section-Block-Parcel

52.01-3-5.1; 52.01-3-4.1; 52.01-3-4.2; 52.01-3-3

Tax Map Numbers

1. Provide the Geographic Coordinates for the project site in NYTM Units. To do this you **must** go to the NYSDEC Stormwater Interactive Map on the DEC website at:

www.dec.ny.gov/imsmaps/stormwater/viewer.htm

Zoom into your Project Location such that you can accurately click on the centroid of your site. Once you have located your project site, go to the tool boxes on the top and choose "i"(identify). Then click on the center of your site and a new window containing the X, Y coordinates in UTM will pop up. Transcribe these coordinates into the boxes below. For problems with the interactive map use the help function.

X Coordinates (Easting)

7 3 8 5 7 5

Y Coordinates (Northing)

4 2 6 9 2 9 1

2. What is the nature of this construction project?

- ☒ New Construction
- ☐ Redevelopment with increase in impervious area
- ☐ Redevelopment with no increase in impervious area

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3. Select the predominant land use for both pre and post development conditions.

SELECT ONLY ONE CHOICE FOR EACH

**Pre-Development
Existing Land Use**

- ☒ FOREST
☐ PASTURE/OPEN LAND
☐ CULTIVATED LAND
☐ SINGLE FAMILY HOME
☐ SINGLE FAMILY SUBDIVISION
☐ TOWN HOME RESIDENTIAL
☐ MULTIFAMILY RESIDENTIAL
☐ INSTITUTIONAL/SCHOOL
☐ INDUSTRIAL
☐ COMMERCIAL
☐ ROAD/HIGHWAY
☐ RECREATIONAL/SPORTS FIELD
☐ BIKE PATH/TRAIL
☐ LINEAR UTILITY
☐ PARKING LOT
☐ OTHER

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**Post-Development
Future Land Use**

- ☐ SINGLE FAMILY HOME
☐ SINGLE FAMILY SUBDIVISION
☐ TOWN HOME RESIDENTIAL
☒ MULTIFAMILY RESIDENTIAL
☐ INSTITUTIONAL/SCHOOL
☐ INDUSTRIAL
☐ COMMERCIAL
☐ MUNICIPAL
☐ ROAD/HIGHWAY
☐ RECREATIONAL/SPORTS FIELD
☐ BIKE PATH/TRAIL
☐ LINEAR UTILITY (water, sewer, gas, etc.)
☐ PARKING LOT
☐ CLEARING/GRADING ONLY
☐ DEMOLITION, NO REDEVELOPMENT
☐ WELL DRILLING ACTIVITY *(Oil, Gas, etc.)
☐ OTHER

Number of Lots

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***Note:** for gas well drilling, non-high volume hydraulic fractured wells only

4. In accordance with the larger common plan of development or sale, enter the total project site area; the total area to be disturbed; existing impervious area to be disturbed (for redevelopment activities); and the future impervious area constructed within the disturbed area. (Round to the nearest tenth of an acre.)

Total Site Area	Total Area To Be Disturbed	Existing Impervious Area To Be Disturbed	Future Impervious Area Within Disturbed Area																								
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		1	9	.	7																						
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			6	.	0																						

5. Do you plan to disturb more than 5 acres of soil at any one time? ☐ Yes ☒ No

6. Indicate the percentage of each Hydrologic Soil Group(HSG) at the site.

A	B	C	D												
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	2	6													
		0													
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7. Is this a phased project? ☐ Yes ☒ No

8. Enter the planned start and end dates of the disturbance activities.

Start Date	End Date																				
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1	0	/	0	1	/	2	0	2	4												

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9. Identify the nearest surface waterbody(ies) to which construction site runoff will discharge.

Name

M c K o w n v i l l e R e s e r v o i r

9a. Type of waterbody identified in Question 9?

- ☐ Wetland / State Jurisdiction On Site (Answer 9b)
☐ Wetland / State Jurisdiction Off Site
☐ Wetland / Federal Jurisdiction On Site (Answer 9b)
☐ Wetland / Federal Jurisdiction Off Site
☐ Stream / Creek On Site
☐ Stream / Creek Off Site
☐ River On Site
☐ River Off Site
☐ Lake On Site
☐ Lake Off Site
☐ Other Type On Site
☒ Other Type Off Site

R e s e r v o i r

9b. How was the wetland identified?

- ☐ Regulatory Map
☐ Delineated by Consultant
☐ Delineated by Army Corps of Engineers
☐ Other (identify)

10. Has the surface waterbody(ies) in question 9 been identified as a 303(d) segment in Appendix E of GP-0-20-001? ☐ Yes ☒ No

11. Is this project located in one of the Watersheds identified in Appendix C of GP-0-20-001? ☐ Yes ☒ No

12. Is the project located in one of the watershed areas associated with AA and AA-S classified waters? ☐ Yes ☒ No
If no, skip question 13.

13. Does this construction activity disturb land with no existing impervious cover and where the Soil Slope Phase is identified as an E or F on the USDA Soil Survey? ☐ Yes ☒ No
If Yes, what is the acreage to be disturbed?

0.0000

14. Will the project disturb soils within a State regulated wetland or the protected 100 foot adjacent area? ☐ Yes ☒ No

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15. Does the site runoff enter a separate storm sewer system (including roadside drains, swales, ditches, culverts, etc)? ☒ Yes ☐ No ☐ Unknown

16. What is the name of the municipality/entity that owns the separate storm sewer system?

T o w n o f G u i l d e r l a n d

17. Does any runoff from the site enter a sewer classified as a Combined Sewer? ☐ Yes ☒ No ☐ Unknown

18. Will future use of this site be an agricultural property as defined by the NYS Agriculture and Markets Law? ☐ Yes ☒ No

19. Is this property owned by a state authority, state agency, federal government or local government? ☐ Yes ☒ No

20. Is this a remediation project being done under a Department approved work plan? (i.e. CERCLA, RCRA, Voluntary Cleanup Agreement, etc.) ☐ Yes ☒ No

21. Has the required Erosion and Sediment Control component of the SWPPP been developed in conformance with the current NYS Standards and Specifications for Erosion and Sediment Control (aka Blue Book)? ☒ Yes ☐ No

22. Does this construction activity require the development of a SWPPP that includes the post-construction stormwater management practice component (i.e. Runoff Reduction, Water Quality and Quantity Control practices/techniques)? ☒ Yes ☐ No
If No, skip questions 23 and 27-39.

23. Has the post-construction stormwater management practice component of the SWPPP been developed in conformance with the current NYS Stormwater Management Design Manual? ☒ Yes ☐ No

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24. The Stormwater Pollution Prevention Plan (SWPPP) was prepared by:

- ☒ Professional Engineer (P.E.)
- ☐ Soil and Water Conservation District (SWCD)
- ☐ Registered Landscape Architect (R.L.A)
- ☐ Certified Professional in Erosion and Sediment Control (CPESC)
- ☐ Owner/Operator
- ☐ Other

[illegible]

SWPPP Preparer

[illegible]

Contact Name (Last, Space, First)

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Mailing Address

[illegible]

City

L	a	t	h	a	m
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State Zip

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Phone

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Fax

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Email

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[illegible]

SWPPP Preparer Certification

I hereby certify that the Stormwater Pollution Prevention Plan (SWPPP) for this project has been prepared in accordance with the terms and conditions of the GP-0-20-001. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of this permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

First Name

[illegible]

MI

E

Last Name

[illegible]

Signature

Date

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25. Has a construction sequence schedule for the planned management practices been prepared? ☒ Yes ☐ No

26. Select **all** of the erosion and sediment control practices that will be employed on the project site:

Temporary Structural

- ☐ Check Dams
- ☐ Construction Road Stabilization
- ☒ Dust Control
- ☐ Earth Dike
- ☐ Level Spreader
- ☐ Perimeter Dike/Swale
- ☐ Pipe Slope Drain
- ☐ Portable Sediment Tank
- ☐ Rock Dam
- ☐ Sediment Basin
- ☐ Sediment Traps
- ☒ Silt Fence
- ☒ Stabilized Construction Entrance
- ☒ Storm Drain Inlet Protection
- ☐ Straw/Hay Bale Dike
- ☐ Temporary Access Waterway Crossing
- ☐ Temporary Stormdrain Diversion
- ☐ Temporary Swale
- ☐ Turbidity Curtain
- ☐ Water bars

Biotechnical

- **Brush Matting**
- **Wattling**

Other

[illegible]

Vegetative Measures

- ☐ Brush Matting
- ☐ Dune Stabilization
- ☐ Grassed Waterway
- ☒ Mulching
- ☒ Protecting Vegetation
- ☐ Recreation Area Improvement
- ☒ Seeding
- ☐ Sodding
- ☐ Straw/Hay Bale Dike
- ☐ Streambank Protection
- ☐ Temporary Swale
- ☒ Topsoiling
- ☐ Vegetating Waterways

Permanent Structural

- ☐ Debris Basin
- ☐ Diversion
- ☐ Grade Stabilization Structure
- ☒ Land Grading
- ☐ Lined Waterway (Rock)
- ☐ Paved Channel (Concrete)
- ☐ Paved Flume
- ☐ Retaining Wall
- ☐ Riprap Slope Protection
- ☒ Rock Outlet Protection
- ☐ Streambank Protection

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Post-construction Stormwater Management Practice (SMP) Requirements

Important: Completion of Questions 27-39 is not required if response to Question 22 is No.

27. Identify all site planning practices that were used to prepare the final site plan/layout for the project.

- ☒ Preservation of Undisturbed Areas
- ☒ Preservation of Buffers
- ☒ Reduction of Clearing and Grading
- ☒ Locating Development in Less Sensitive Areas
- ☐ Roadway Reduction
- ☐ Sidewalk Reduction
- ☐ Driveway Reduction
- ☐ Cul-de-sac Reduction
- ☐ Building Footprint Reduction
- ☐ Parking Reduction

- 27a. Indicate which of the following soil restoration criteria was used to address the requirements in Section 5.1.6("Soil Restoration") of the Design Manual (2010 version).

- ☒ All disturbed areas will be restored in accordance with the Soil Restoration requirements in Table 5.3 of the Design Manual (see page 5-22).
- ☐ Compacted areas were considered as impervious cover when calculating the **WQv Required**, and the compacted areas were assigned a post-construction Hydrologic Soil Group (HSG) designation that is one level less permeable than existing conditions for the hydrology analysis.

28. Provide the total Water Quality Volume (WQv) required for this project (based on final site plan/layout).

Total WQv Required

. acre-feet

29. Identify the RR techniques (Area Reduction), RR techniques(Volume Reduction) and Standard SMPs with RRV Capacity in Table 1 (See Page 9) that were used to reduce the Total WQv Required(#28).

Also, provide in Table 1 the total impervious area that contributes runoff to each technique/practice selected. For the Area Reduction Techniques, provide the total contributing area (includes pervious area) and, if applicable, the total impervious area that contributes runoff to the technique/practice.

Note: Redevelopment projects shall use Tables 1 and 2 to identify the SMPs used to treat and/or reduce the WQv required. If runoff reduction techniques will not be used to reduce the required WQv, skip to question 33a after identifying the SMPs.

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Table 1 - Runoff Reduction (RR) Techniques
and Standard Stormwater Management
Practices (SMPs)

RR Techniques (Area Reduction)	Total Contributing Area (acres)	Total Contributing Impervious Area (acres)
☐ Conservation of Natural Areas (RR-1) ...		and/or
☐ Sheetflow to Riparian Buffers/Filters Strips (RR-2)		and/or
☐ Tree Planting/Tree Pit (RR-3)		and/or
☐ Disconnection of Rooftop Runoff (RR-4) ..		and/or
RR Techniques (Volume Reduction)		
☐ Vegetated Swale (RR-5)		
☐ Rain Garden (RR-6)		
☐ Stormwater Planter (RR-7)		
☐ Rain Barrel/Cistern (RR-8)		
☐ Porous Pavement (RR-9)		
☐ Green Roof (RR-10)		
Standard SMPs with RRv Capacity		
☐ Infiltration Trench (I-1)		
☒ Infiltration Basin (I-2)		2 6 2 6
☐ Dry Well (I-3)		
☒ Underground Infiltration System (I-4)		2 0 8 4
☒ Bioretention (F-5)		1 0 1 4
☐ Dry Swale (O-1)		
Standard SMPs		
☐ Micropool Extended Detention (P-1)		
☐ Wet Pond (P-2)		
☐ Wet Extended Detention (P-3)		
☐ Multiple Pond System (P-4)		
☐ Pocket Pond (P-5)		
☐ Surface Sand Filter (F-1)		
☐ Underground Sand Filter (F-2)		
☐ Perimeter Sand Filter (F-3)		
☐ Organic Filter (F-4)		
☐ Shallow Wetland (W-1)		
☐ Extended Detention Wetland (W-2)		
☐ Pond/Wetland System (W-3)		
☐ Pocket Wetland (W-4)		
☐ Wet Swale (O-2)		

Alternative SMP

Total Contributing
Impervious Area(acres)

- [illegible]

[illegible][illegible]

30. Indicate the Total RRv provided by the RR techniques (Area/Volume Reduction) and Standard SMPs with RRv capacity identified in question 29.

Total RRV provided

		0
--	--	---

 .

5	2	1
---	---	---

 acre-feet

31. Is the Total RRV provided (#30) greater than or equal to the total WQV required (#28).

☒ Yes ☐ No

If Yes, go to question 36.
If No, go to question 32.

32. Provide the Minimum RRv required based on HSG.
[Minimum RRv Required = (P)(0.95)(Ai)/12, Ai=(S)(Aic)]

Minimum RRV Required

--	--	--

 ·

--	--	--

 acre-feet

- 32a. Is the Total RRv provided (#30) greater than or equal to the Minimum RRv Required (#32)?

☐ Yes ☐ No

If Yes, go to question 33.

Note: Use the space provided in question #39 to summarize the specific site limitations and justification for not reducing 100% of WQv required (#28). A detailed evaluation of the specific site limitations and justification for not reducing 100% of the WQv required (#28) must also be included in the SWPPP.

If No, sizing criteria has not been met, so NOI can not be processed. SWPPP preparer must modify design to meet sizing criteria.

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33. Identify the Standard SMPs in Table 1 and, if applicable, the Alternative SMPs in Table 2 that were used to treat the remaining total WQv(=Total WQv Required in 28 - Total RRV Provided in 30).

Also, provide in Table 1 and 2 the total impervious area that contributes runoff to each practice selected.

Note: Use Tables 1 and 2 to identify the SMPs used on Redevelopment projects.

- 33a. Indicate the Total WQv provided (i.e. WQv treated) by the SMPs identified in question #33 and Standard SMPs with RRV Capacity identified in question 29.

WQv Provided

. acre-feet

Note: For the standard SMPs with RRV capacity, the WQv provided by each practice = the WQv calculated using the contributing drainage area to the practice - RRV provided by the practice. (See Table 3.5 in Design Manual)

34. Provide the sum of the Total RRV provided (#30) and the WQv provided (#33a).

.

35. Is the sum of the RRV provided (#30) and the WQv provided (#33a) greater than or equal to the total WQv required (#28)? ☐ Yes ☐ No

If Yes, go to question 36.

If No, sizing criteria has not been met, so NOI can not be processed. SWPPP preparer must modify design to meet sizing criteria.

36. Provide the total Channel Protection Storage Volume (CPv) required and provided or select waiver (36a), if applicable.

CPv Required

. acre-feet

CPv Provided

. acre-feet

- 36a. The need to provide channel protection has been waived because:

- ☐ Site discharges directly to tidal waters or a fifth order or larger stream.
☒ Reduction of the total CPv is achieved on site through runoff reduction techniques or infiltration systems.

37. Provide the Overbank Flood (Qp) and Extreme Flood (Qf) control criteria or select waiver (37a), if applicable.

Total Overbank Flood Control Criteria (Qp)

Pre-Development

. CFS

Post-development

. CFS

Total Extreme Flood Control Criteria (Qf)

Pre-Development

. CFS

Post-development

. CFS

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40. Identify other DEC permits, existing and new, that are required for this project/facility.

- ☐ Air Pollution Control
☐ Coastal Erosion
☐ Hazardous Waste
☐ Long Island Wells
☐ Mined Land Reclamation
☐ Solid Waste
☐ Navigable Waters Protection / Article 15
☐ Water Quality Certificate
☐ Dam Safety
☐ Water Supply
☐ Freshwater Wetlands/Article 24
☐ Tidal Wetlands
☐ Wild, Scenic and Recreational Rivers
☐ Stream Bed or Bank Protection / Article 15
☐ Endangered or Threatened Species(Incidental Take Permit)
☐ Individual SPDES
☐ SPDES Multi-Sector GP

N	Y	R							
---	---	---	--	--	--	--	--	--	--

☐ Other

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

☒ None

41. Does this project require a US Army Corps of Engineers Wetland Permit?

☐ Yes ☒ No

If Yes, Indicate Size of Impact.

--	--	--	--	--	--

42. Is this project subject to the requirements of a regulated, traditional land use control MS4?
(If No, skip question 43)

☒ Yes ☐ No

43. Has the "MS4 SWPPP Acceptance" form been signed by the principal executive officer or ranking elected official and submitted along with this NOI?

☒ Yes ☐ No

44. If this NOI is being submitted for the purpose of continuing or transferring coverage under a general permit for stormwater runoff from construction activities, please indicate the former SPDES number assigned.

N	Y	R							
---	---	---	--	--	--	--	--	--	--

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Owner/Operator Certification

I have read or been advised of the permit conditions and believe that I understand them. I also understand that, under the terms of the permit, there may be reporting requirements. I hereby certify that this document and the corresponding documents were prepared under my direction or supervision. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I further understand that coverage under the general permit will be identified in the acknowledgment that I will receive as a result of submitting this NOI and can be as long as sixty (60) business days as provided for in the general permit. I also understand that, by submitting this NOI, I am acknowledging that the SWPPP has been developed and will be implemented as the first element of construction, and agreeing to comply with all the terms and conditions of the general permit for which this NOI is being submitted.

Print First Name

M i c h a e l

MI**Print Last Name**

U c c e l l i n i

Owner/Operator Signature**Date**

0 7 / 2 2 / 2 0 2 2



**Department of
Environmental
Conservation**

**NYS Department of Environmental Conservation
Division of Water
625 Broadway, 4th Floor
Albany, New York 12233-3505**

**MS4 Stormwater Pollution Prevention Plan (SWPPP) Acceptance
Form**

for

Construction Activities Seeking Authorization Under SPDES General Permit

*(NOTE: Attach Completed Form to Notice Of Intent and Submit to Address Above)

I. Project Owner/Operator Information

1. Owner/Operator Name: UG Family. LLC
2. Contact Person: Michael Uccellini
3. Street Address: 300 Jordan Road
4. City/State/Zip: Troy, NY 12180

II. Project Site Information

5. Project/Site Name: The Apex at Crossgates
6. Street Address: Rapp Road
7. City/State/Zip: Guilderland, NY 12203

III. Stormwater Pollution Prevention Plan (SWPPP) Review and Acceptance Information

8. SWPPP Reviewed by:
9. Title/Position:
10. Date Final SWPPP Reviewed and Accepted:

IV. Regulated MS4 Information

11. Name of MS4:
12. MS4 SPDES Permit Identification Number: NYR20A
13. Contact Person:
14. Street Address:
15. City/State/Zip:
16. Telephone Number:

(NYS DEC - MS4 SWPPP Acceptance Form - January 2015)

New York State Department of Environmental Conservation Division of Water 625 Broadway, 4th Floor Albany, New York 12233-3505 *(NOTE: Submit completed form to address above)*	
NOTICE OF TERMINATION for Storm Water Discharges Authorized under the SPDES General Permit for Construction Activity	
Please indicate your permit identification number: NYR _____	
I. Owner or Operator Information	
1. Owner/Operator Name: _____	
2. Street Address: _____	
3. City/State/Zip: _____	
4. Contact Person: _____	4a. Telephone: _____
4b. Contact Person E-Mail: _____	
II. Project Site Information	
5. Project/Site Name: _____	
6. Street Address: _____	
7. City/Zip: _____	
8. County: _____	
III. Reason for Termination	
9a. ☐ All disturbed areas have achieved final stabilization in accordance with the general permit and SWPPP. *Date final stabilization completed (month/year): _____	
9b. ☐ Permit coverage has been transferred to new owner/operator. Indicate new owner/operator's permit identification number: NYR _____ (Note: Permit coverage can not be terminated by owner identified in I.1. above until new owner/operator obtains coverage under the general permit)	
9c. ☐ Other (Explain on Page 2)	
IV. Final Site Information:	
10a. Did this construction activity require the development of a SWPPP that includes post-construction stormwater management practices? ☐ yes ☐ no (If no, go to question 10f.)	
10b. Have all post-construction stormwater management practices included in the final SWPPP been constructed? ☐ yes ☐ no (If no, explain on Page 2)	
10c. Identify the entity responsible for long-term operation and maintenance of practice(s)? _____	

**NOTICE OF TERMINATION for Storm Water Discharges Authorized under the
SPDES General Permit for Construction Activity - continued**

10d. Has the entity responsible for long-term operation and maintenance been given a copy of the operation and maintenance plan required by the general permit? ☐ yes ☐ no

10e. Indicate the method used to ensure long-term operation and maintenance of the post-construction stormwater management practice(s):

- ☐ Post-construction stormwater management practice(s) and any right-of-way(s) needed to maintain practice(s) have been deeded to the municipality.
- ☐ Executed maintenance agreement is in place with the municipality that will maintain the post-construction stormwater management practice(s).
- ☐ For post-construction stormwater management practices that are privately owned, a mechanism is in place that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan, such as a deed covenant in the owner or operator's deed of record.
- ☐ For post-construction stormwater management practices that are owned by a public or private institution (e.g. school, university or hospital), government agency or authority, or public utility; policy and procedures are in place that ensures operation and maintenance of the practice(s) in accordance with the operation and maintenance plan.

10f. Provide the total area of impervious surface (i.e. roof, pavement, concrete, gravel, etc.) constructed within the disturbance area? _____
(acres)

11. Is this project subject to the requirements of a regulated, traditional land use control MS4? ☐ yes
☐ no
(If Yes, complete section VI - "MS4 Acceptance" statement)

V. Additional Information/Explanation:

(Use this section to answer questions 9c. and 10b., if applicable)

VI. MS4 Acceptance - MS4 Official (principal executive officer or ranking elected official) or Duly Authorized Representative (Note: Not required when 9b. is checked -transfer of coverage)

I have determined that it is acceptable for the owner or operator of the construction project identified in question 5 to submit the Notice of Termination at this time.

Printed Name: _____

Title/Position: _____

Signature: _____

Date: _____

**NOTICE OF TERMINATION for Storm Water Discharges Authorized under the
SPDES General Permit for Construction Activity - continued**

VII. Qualified Inspector Certification - Final Stabilization:

I hereby certify that all disturbed areas have achieved final stabilization as defined in the current version of the general permit, and that all temporary, structural erosion and sediment control measures have been removed. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

Printed Name:

Title/Position:

Signature:

Date:

VIII. Qualified Inspector Certification - Post-construction Stormwater Management Practice(s):

I hereby certify that all post-construction stormwater management practices have been constructed in conformance with the SWPPP. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

Printed Name:

Title/Position:

Signature:

Date:

IX. Owner or Operator Certification

I hereby certify that this document was prepared by me or under my direction or supervision. My determination, based upon my inquiry of the person(s) who managed the construction activity, or those persons directly responsible for gathering the information, is that the information provided in this document is true, accurate and complete. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

Printed Name:

Title/Position:

Signature:

Date:

(NYS DEC Notice of Termination - January 2015)

**Stormwater Pollution Prevention Plan
Contractor Certification Statement
(Responsible for overall SWPPP Compliance)**

The Apex at Crossgates
Rapp Road, Town of Guilderland, Albany County, New York

This is to certify that the following contracting firm will be responsible for installing, constructing, repairing, inspecting and/or maintaining the erosion and sediment control practices and post-construction stormwater management control practices required by the SWPPP.

Contracting Firm Information

Name: _____

Address: _____

Telephone & Fax: _____

Trained Contractor(s)¹ Responsible for SWPPP Implementation (Provide name, title, and date of last training)

Prior to commencement of construction activity, the following certification shall be issued:

I hereby certify under penalty of law that I understand and agree to comply with the terms and conditions of the SWPPP and agree to implement any corrective actions identified by the *qualified inspector* during a site inspection. I also understand that the *owner or operator* must comply with the terms and conditions of the most current version of the New York State Pollutant Discharge Elimination System ("SPDES") general permit for stormwater *discharges from construction activities* and that it is unlawful for any person to cause or contribute to a violation of *water quality standards*. Furthermore, I am aware that there are significant penalties for submitting false information, that I do not believe to be true, including the possibility of fine and imprisonment for knowing violations.

Printed Name: _____

Title/Position: _____

Signature: _____ Date: _____

Upon completion of construction activities, the following certification shall be issued, prior to issuance of the NOT:

I hereby certify that that all permanent stormwater management practices required by the SWPPP have been installed in accordance with the contract documents. I further certify that all temporary erosion and sediment control measures have been removed from the site, and that the on-site soils disturbed by construction activity have been restored in accordance with the SWPPP and the NYSDEC Division of Water's publication "Deep-Ripping and Decomaction".

Printed Name: _____

Title/Position: _____

Signature: _____ Date: _____

¹ "Trained Contractor" means an employee from a contracting (construction) company that has received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the "trained contractor" shall receive four (4) hours of training every three (3) years. It can also mean an employee from the contracting (construction) company that meets the "qualified inspector" qualifications (e.g. licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, New York State Erosion and Sediment Control Certificate Program holder, or someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity). The "Trained Contractor" will be responsible for the day to day implementation of the SWPPP.

² Signatory Requirements:

- a. For a corporation, this form shall be signed by (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principle business function, or any other person who performs similar policy or decision-making functions for the corporation; or (ii) the manager of one or more manufacturing, production or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
- b. For a partnership or sole proprietorship, this form shall be signed by a general partner or the proprietor, respectively.
- c. For a municipality, State, Federal, or other public agency, this form shall be signed by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g. Regional Administrators of EPA).

**Stormwater Pollution Prevention Plan
Subcontractor Certification Statement
(whose work involves soil disturbance)**

The Apex at Crossgates
Rapp Road, Town of Guilderland, Albany County, New York

Each Subcontractor whose work will involve soil disturbance of any kind is required to complete and sign this Certification Statement before commencing any construction activity at the site. This completed Certification Statement(s) shall be maintained at the construction site in the Site Log Book.

Subcontracting Firm Information

Name: _____

Address: _____

Telephone & Fax: _____

Trained Contractor(s)² Responsible for SWPPP Implementation (Provide name, title, and date of last training)

Prior to commencement of construction activities, the following certification shall be issued:

I hereby certify under penalty of law that I understand and agree to comply with the terms and conditions of the SWPPP and agree to implement any corrective actions identified by the *qualified inspector* during a site inspection. I also understand that the *owner or operator* must comply with the terms and conditions of the most current version of the New York State Pollutant Discharge Elimination System ("SPDES") general permit for stormwater *discharges from construction activities* and that it is unlawful for any person to cause or contribute to a violation of *water quality standards*. Furthermore, I am aware that there are significant penalties for submitting false information, that I do not believe to be true, including the possibility of fine and imprisonment for knowing violations.

Printed Name: _____

Title/Position: _____

Signature: _____ Date: _____

² "Trained Contractor" means an employee from a contracting (construction) company that has received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the "trained contractor" shall receive four (4) hours of training every three (3) years. It can also mean an employee from the contracting (construction) company that meets the "qualified inspector" qualifications (e.g. licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, New York State Erosion and Sediment Control Certificate Program holder, or someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity). The "Trained Contractor" will be responsible for the day to day implementation of the SWPPP.

² Signatory Requirements:

- a. For a corporation, this form shall be signed by (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principle business function, or any other person who performs similar policy or decision-making functions for the corporation; or (ii) the manager of one or more manufacturing, production or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
- b. For a partnership or sole proprietorship, this form shall be signed by a general partner or the proprietor, respectively.
- c. For a municipality, State, Federal, or other public agency, this form shall be signed by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g. Regional Administrators of EPA).

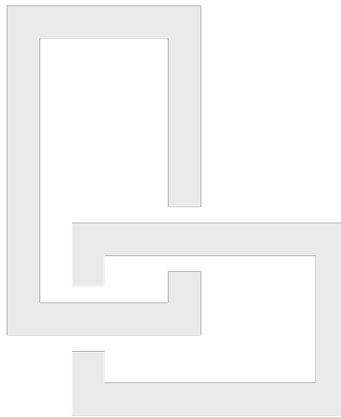
Appendix D:
SWPPP Inspection Report
(Sample Form)

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Prepared by:
LaBella Associates
4 British American Blvd
Latham, NY 12110
(518) 273-0055



SWPPP INSPECTION REPORT NUMBER 1
UG Family, LLC
The Apex at Crossgates
Rapp Road, Town of Guilderland, Albany County, NY



Performed: 7/22/2022 @ 12:00 AM
Report Issued: 7/22/2022

Status: SATISFACTORY (All erosion control measures are installed and in working order)

Qualified Inspector (name and title)

Qualified Professional (name and title)

Date

Date

Signature

Signature

NYSDEC Documentation and SWPPP Forms**NYSDEC Issued Permit Identification Number:** NYRXXXXXX**5-Acre Waiver:** N/A (No 5-acre waiver for this project - Contractor not authorized to disturb >5 acres)**303d Status:** Project does not directly discharge to a 303d impaired waterbody**Number of Inspections required:** 1 / week**Location of SWPPP and Site Log Book on-site:**

YES	NO	N/A	CONTAINED IN SITE LOG BOOK?
☐	☐	☐	Preconstruction Assessment
☐	☐	☐	NOI Acknowledgement letter
☐	☐	☐	Copy of eNOI
☐	☐	☐	Owner / Operator Certification
☐	☐	☐	SWPPP Preparer Certification
☐	☐	☐	MS4 SWPPP Acceptance Form
☐	☐	☐	Contractor and Subcontractor Certifications
☐	☐	☐	SPDES General Permit
☐	☐	☐	5 Acre Waiver
☐	☐	☐	NOT

Comments: _____

Site Conditions

Approximate Disturbed Area at Time of Inspection: XX Acres			
Allowable Disturbed Area Per NOI and/or 5-acre waiver: XX Acres			
Current Status of Construction: Description			
Weather Conditions: Conditions		Temperature: XX °F	Soil Conditions: Choose an item.
Description of Discharge Point/Natural Surface Waterbody	Condition of Runoff	Sediment Discharge Noted Y / N	Corrective Action

Erosion and Sediment Control Deficiencies and Corrective Actions

SWPPP Component	Functional Y / N / NA	Deficiency (See Checklist and/or note)	Deficiency Location	Initial Date	Corrective Action	Corrected Y / N
General Site Conditions						
Silt Fence						
Stabilized Construction Access						
Compost Filter Sock						
Inlet Protection						
Soil Stockpiles						
Temporary Stabilization						
Permanent Stabilization						
Dewatering Operations						
Stone Check Dams						
Rock Outlet Protection						
Sediment Traps and Basins						
Temporary Stream Crossing						
Pavement Sweeping						
Concrete Washout						
Filter Strips						
Slope Protection Measures						
Temporary Swales and Berms						
Temporary Parking Areas						
Fiber Roll						
Permanent Turf Reinforcement						
Water Bars						
Flow Diffusers						
Other:						

SWPPP Inspection Checklist and Deficiency Numbers

1	General Site Conditions	
	1A	Adjoining properties are not protected from erosion and sediment deposition
6	Soil Stockpiles	
	6A	No sediment controls at downhill slope
7	Temporary Stabilization	
	7A	Areas inactive for 14 days or more have not been stabilized (If <5 acres disturbed)
8	Permanent Stabilization	
	8A	Lawn in disturbed areas has not been established to 80% germination
9	Dewatering Operations	
	9A	Upstream and downstream berms are not installed or functioning poorly
10	Stone Check Dam	
	10A	Not installed per standards
11	Rock Outlet Protection	
	11A	Rock outlet protection not installed per plan or Blue Book
12	Sediment Traps and Basins	
	12A	Outlet structure constructed improperly
13	Temporary Stream Crossing	
	13A	Construction crossings at concentrated flow areas have not been culverted
14	Pavement Sweeping	
	14A	Pavement has not been swept daily and sediment has traveled into road
1	General Site Conditions	
	1A	Adjoining properties are not protected from erosion and sediment deposition
2	Silt Fence	
	2A	Silt fence not installed on contour
3	Stabilized Construction Access	
	3A	Temporary construction access not installed or not per NYS standards
4	Compost Filter Sock	
	4A	Filter sock not installed on contour
5	Inlet Protection	
	5A	Inlet protection not installed or installation is not per SWPPP or Blue Book specifications
6	Soil Stockpiles	
	6A	No sediment controls at downhill slope
7	Temporary Stabilization	
	7A	Areas inactive for 14 days or more have not been stabilized (If <5 acres disturbed)
8	Permanent Stabilization	
	8A	Lawn in disturbed areas has not been established to 80% germination
9	Dewatering Operations	
	9A	Upstream and downstream berms are not installed or functioning poorly
10	Stone Check Dam	
	10A	Not installed per standards
11	Rock Outlet Protection	
	11A	Rock outlet protection not installed per plan or Blue Book
12	Sediment Traps and Basins	
	12A	Outlet structure constructed improperly
13	Temporary Stream Crossing	
	13A	Construction crossings at concentrated flow areas have not been culverted
14	Pavement Sweeping	
	14A	Pavement has not been swept daily and sediment has traveled into road
1	General Site Conditions	
	1A	Adjoining properties are not protected from erosion and sediment deposition
2	Silt Fence	
	2A	Silt fence not installed on contour
3	Stabilized Construction Access	
	3A	Temporary construction access not installed or not per NYS standards
4	Compost Filter Sock	
	4A	Filter sock not installed on contour
5	Inlet Protection	
	5A	Inlet protection not installed or installation is not per SWPPP or Blue Book specifications
6	Soil Stockpiles	
	6A	No sediment controls at downhill slope
7	Temporary Stabilization	
	7A	Areas inactive for 14 days or more have not been stabilized (If <5 acres disturbed)
8	Permanent Stabilization	
	8A	Lawn in disturbed areas has not been established to 80% germination
9	Dewatering Operations	
	9A	Upstream and downstream berms are not installed or functioning poorly
10	Stone Check Dam	
	10A	Not installed per standards
11	Rock Outlet Protection	
	11A	Rock outlet protection not installed per plan or Blue Book
12	Sediment Traps and Basins	
	12A	Outlet structure constructed improperly
13	Temporary Stream Crossing	
	13A	Construction crossings at concentrated flow areas have not been culverted
14	Pavement Sweeping	
	14A	Pavement has not been swept daily and sediment has traveled into road

Stormwater Management Practice Deficiencies and Corrective Actions

Practice	Sign Y / N	Current Phase of Construction	Items Not in Conformance with SWPPP	Deficiency Location	Initial Date	Corrective Action	Corrected Y / N
Practice 1:							
Practice 2:							
Practice 3:							
Practice 4:							
Practice 5:							
Practice 6:							

Appendix E:
NYSDEC “Deep-Ripping and
Decompaction,” April 2008

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Division of Water

Deep-Ripping and Decompaction

April 2008

New York State
Department of Environmental Conservation

Document Prepared by:

John E. Lacey,
Land Resource Consultant and Environmental Compliance Monitor
(Formerly with the Division of Agricultural Protection and Development Services,
NYS Dept. of Agriculture & Markets)

Alternative Stormwater Management
Deep-Ripping and Decompaction

Description

The two-phase practice of 1) "Deep Ripping;" and 2) "Decompaction" (deep subsoling), of the soil material as a step in the cleanup and restoration/landscaping of a construction site, helps mitigate the physically induced impacts of soil compression; i.e.: soil compaction or the substantial increase in the bulk density of the soil material.

Deep Ripping and Decompaction are key factors which help in restoring soil pore space and permeability for water infiltration. Conversely, the physical actions of cut-and-fill work, land grading, the ongoing movement of construction equipment and the transport of building materials throughout a site alter the architecture and structure of the soil, resulting in: the mixing of layers (horizons) of soil materials, compression of those materials and diminished soil porosity which, if left unchecked, severely impairs the soil's water holding capacity and vertical drainage (rainfall infiltration), from the surface downward.

In a humid climate region, compaction damage on a site is virtually guaranteed over the duration of a project. Soil in very moist to wet condition when compacted, will have severely reduced permeability. Figure 1 displays the early stage of the deep-ripping phase (Note that all topsoil was stripped prior to construction access, and it remains stockpiled until the next phase – decompaction – is complete). A heavy-duty tractor is pulling a three-shank ripper on the first of several series of incrementally deepening passes through the construction access corridor's densely compressed subsoil material. Figure 2 illustrates the approximate volumetric composition of a loam surface soil when conditions are good for plant growth, with adequate natural pore space for fluctuating moisture conditions.

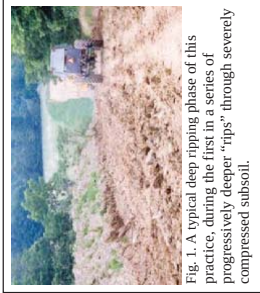


Fig. 1. A typical deep ripping phase of this practice, during the first in a series of progressively deeper "rips" through severely compressed subsoil.

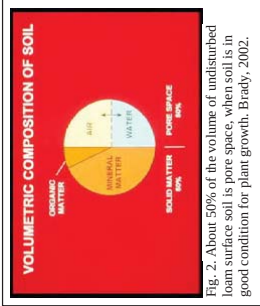


Fig. 2. About 50% of the volume of undisturbed loam surface soil is pore space, when soil is in good condition for plant growth. Brady, 2002.

Recommended Application of Practice

The objective of Deep Ripping and Decompaction is to effectively fracture (vertically and laterally) through the thickness of the physically compressed subsoil material (see Figure 3), restoring soil porosity and permeability and aiding infiltration to help reduce runoff. Together with topsoil stripping, the "two-phase" practice of Deep Ripping and Decompaction first became established as a "best management practice" through ongoing success on commercial farmlands affected by heavy utility construction right-of-way projects (transmission pipelines and large power lines).



Fig. 3. Construction site with significant compaction of the deep basal till subsoil extends 24 inches below this exposed cut-and-fill work surface.

Soil permeability, soil drainage and cropland productivity were restored. For broader construction application, the two-phase practice of Deep Ripping and Decompaction is best adapted to areas impacted with significant soil compaction, on contiguous open portions of large construction sites and inside long, open construction corridors used as temporary access over the duration of construction. Each mitigation area should have minimal above-and-below-ground obstructions for the easy avoidance and maneuvering of a large tractor and ripping/decompacting implements. Conversely, the complete two-phase practice is not recommended in congested or obstructed areas due to the limitations on tractor and implement movement.

Benefits

Aggressive "deep ripping" through the compressed thickness of exposed subsoil before the replacement/respreading of the topsoil layer, followed by "decompaction," i.e.: "sub-solling," through the restored topsoil layer down into the subsoil, offers the following benefits:

- Increases the project (larger size) area's direct surface infiltration of rainfall by providing the open site's mitigated soil condition and lowers the demand on concentrated runoff control structures
- Enhances direct groundwater recharge through greater dispersion across and through a broader surface than afforded by some runoff-control structural measures
- Decreases runoff volume generated and provides hydrologic source control
- May be planned for application in feasible open locations either alone or in

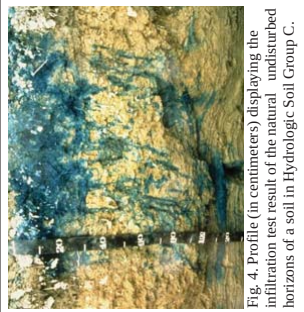
- conjunction with plans for structural practices (e.g., subsurface drain line or infiltration basin) serving the same or contiguous areas
- Promotes successful long-term revegetation by restoring soil permeability, drainage and water holding capacity for healthy (rather than restricted) root-system development of trees, shrubs and deep rooted ground cover, minimizing plant drowning during wet periods and burnout during dry periods.

Feasibility / Limitations

The effectiveness of Deep Ripping and Decompaction is governed mostly by site factors such as: the original (undisturbed) soil's hydrologic characteristics; the general slope; local weather/timing (soil moisture) for implementation; the space-related freedom of equipment/implementation maneuverability (noted above in **Recommended Application of Practice**), and by the proper selection and operation of tractor and implements (explained below in **Design Guidance**). The more notable site-related factors include:

Soil
In the undisturbed condition, each identified soil type comprising a site is grouped into one of four categories of soil hydrology: Hydrologic Soil Group A, B, C or D, determined primarily by a range of characteristics including soil texture, drainage capability when thoroughly wet, and depth to water table. The natural rates of infiltration and transmission of soil-water through the undisturbed soil layers for Group A is "high" with a low runoff potential while soils in Group B are moderate in infiltration and the transmission of soil-water with a moderate runoff potential, depending somewhat on slope. Soils in Group C have slow rates of infiltration and transmission of soil-water and a moderately high runoff potential influenced by soil texture and slope; while soils in Group D have exceptionally slow rates of infiltration and transmission of soil-water, and high runoff potential.

In Figure 4, the profile displays the undisturbed horizons of a soil in Hydrologic Soil Group C and the naturally slow rate of infiltration through the subsoil. The slow rate of infiltration begins immediately below the topsoil horizon (30 cm), due to the limited amount of macro pores, e.g.: natural subsoil fractures, worm holes and root channels. Infiltration after the construction-induced mixing and compression of such subsoil material is virtually absent; but can be restored back to this natural level with the two-phase practice of deep ripping and decompaction, followed by the permanent establishment of an appropriate, deep taproot



lawn/ground cover to help maintain the restored subsoil structure. Infiltration after construction-induced mixing and compression of such subsoil material can be notably rehabilitated with the Deep Ripping and Decompaction practice, which prepares the site for the appropriate long-term lawn/ground cover mix including deep taproot plants such as clover, fescue or trefoil, etc. needed for all rehabilitated soils.

Generally, soils in Hydrologic Soil Groups A and B, which respectively may include deep, well-drained, sandy-gravelly materials or deep, moderately well-drained basal till materials, are among the easier ones to restore permeability and infiltration, by deep ripping and decompaction. Among the many different soils in Hydrologic Soil Group C are those unique glacial tills having a natural fragipan zone, beginning about 12 to 18 inches (30 – 45cm), below surface. Although soils in Hydrologic Soil Group C do require a somewhat more carefully applied level of the Deep Ripping and Decompaction practice, it can greatly benefit such affected areas by reducing the runoff and fostering infiltration to a level equal to that of pre-disturbance.

Soils in Hydrologic Soil Group D typically have a permanent high water table close to the surface, influenced by a clay or other highly impervious layer of material. In many locations with clay subsoil material, the bulk density is so naturally high that heavy trafficking has little or no added impact on infiltration; and structural runoff control practices rather than Deep Ripping and Decompaction should be considered.

The information about Hydrologic Soil Groups is merely a general guideline. Site-specific data such as limited depths of cut-and-fill grading with minimal removal or translocation of the inherent subsoil materials (as analyzed in the county soil survey) or, conversely, the excavation and translocation of deeper, unconsolidated substratum or consolidated bedrock materials (unlike the analyzed subsoil horizons' materials referred to in the county soil survey) should always be taken into account.

Sites made up with significant quantities of large rocks, or having a very shallow depth to bedrock, are not conducive to deep ripping and decompaction (subsoiling); and other measures may be more practical.

Slope

The two-phase application of 1) deep ripping and 2) decompaction (deep subsoiling), is most practical on flat, gentle and moderate slopes. In some situations, such as but not limited to temporary construction access corridors, inclusion areas that are moderately steep along a project's otherwise gentle or moderate slope may also be deep ripped and decompacted. For limited instances of moderate steepness on other projects, however, the post-construction land use and the relative alignment of the potential ripping and decompaction work in relation to the lay of the slope should be reviewed for safety and practicality. In broad construction areas predominated by moderately steep or steep slopes, the practice is generally not used.

Local Weather/Timing/Soil Moisture

Effective fracturing of compressed subsoil material from the exposed work surface, laterally and vertically down through the affected zone is achieved only when the soil material is moderately dry to moderately moist. Neither one of the two-phases, deep ripping nor decompaction (deep

subsoiling), can be effectively conducted when the soil material (subsoil or replaced topsoil) is in either a "plastic" or "liquid" state of soil consistency. Pulling the respective implements legs through the soil when it is overly moist only results in the "slicing and smearing" of the material or added "squeezing and compression" instead of the necessary fracturing. Ample drying time is needed for a "rippable" soil condition not merely in the material close to the surface, but throughout the material located down to the bottom of the physically compressed zone of the subsoil.

The "poor man's Atterberg field test" for soil plasticity is a simple "hand-roll" method used for quick, on-site determination of whether or not the moisture level of the affected soil material is low enough for: effective deep ripping of subsoil; respreading of topsoil in a friable state; and final decompaction (deep subsoiling). Using a sample of soil material obtained from the planned bottom depth of ripping, e.g.: 20 - 24 inches below exposed subsoil surface, the sample is hand rolled between the palms down to a 1/8-inch diameter thread. (Use the same test for stored topsoil material before respreading on the site.) If the respective soil sample crumbles apart in segments no greater than 3/8 of an inch long, by the time it is rolled down to 1/8 inch diameter, it is low enough in moisture for deep ripping (or topsoil replacement), and decompaction. Conversely, as shown in Figure 5, if the rolled sample stretches out in increments greater than 3/8 of an inch long before crumbling, it is in a "plastic" state of soil consistency and is too wet for subsoil ripping (as well as topsoil replacement) and final decompaction.

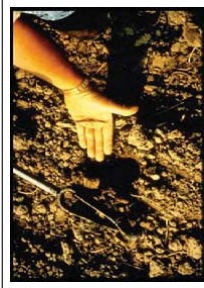


Fig. 5. Augered from a depth of 19 inches below the surface of the replaced topsoil, this subsoil sample was hand rolled to a 1/8-inch diameter. The test shows the soil at this site stretches out too far without crumbling; it indicates the material is in a plastic state of consistency, too wet for final decompaction (deep subsoiling) at this time.

Design Guidance

Beyond the above-noted site factors, a vital requirement for the effective Deep Ripping and Decompaction (deep subsoiling), is implementing the practice in its distinct, two-phase process:

- 1) Deep rip the affected thickness of exposed subsoil material (see Figure 10 and 11), aggressively fracturing it before the protected topsoil is resplitted on the site (see Figure 12); and
- 2) Decompact (deep subsoil), simultaneously through the restored topsoil layer and the upper half of the affected subsoil (Figure 13). The second phase, "decompaction," mitigates the partial recompaction which occurs during the heavy process of topsoil spreading/grading. Prior to deep ripping and decompacting the site, all construction activity, including construction equipment and material storage, site cleanup and trafficking (Figure 14), should be finished; and the site closed off to further disturbance. Likewise, once the practice is underway and the area's soil permeability and

rainfall infiltration are being restored, a policy limiting all further traffic to permanent travel lanes is maintained.

The other critical elements, outlined below, are: using the proper implements (deep, heavy-duty rippers and subsoilers), and ample pulling-power equipment (tractors); and conducting the practice at the appropriate speed, depth and pattern(s) of movement.

Note that an appropriate plan for the separate practice of establishing a healthy perennial ground cover, with deep rooting to help maintain the restored soil structure, should be developed in advance. This may require the assistance of an agronomist or landscape horticulturist.

Implements

Avoid the use of all undersize implements. The small-to-medium, light-duty tool will, at best, only "scarify" the uppermost surface portion of the mass of compacted subsoil material. The term "chisel plow" is commonly but incorrectly applied to a broad range of implements. While a few may be adapted for the moderate subsoiling of non-impacted soils, the majority are less durable and used for only tighter land-fitting (see Figure 6).



Fig. 6. A light-duty chisel implement, not adequate for either the deep ripping or decompaction (deep subsoiling) phase.



Fig. 7. One of several variations of an agricultural ripper. This unit has long, rugged shanks mounted on a steel V-frame for deep, aggressive fracturing through Phase 1.

Use a "heavy-duty" agricultural-grade, deep ripper (see Figures 7,9,10 and 11) for the first phase: the lateral and vertical fracturing of the mass of exposed and compressed subsoil, down and through, to the bottom of impact, prior to the replacement of the topsoil layer. (Any oversize rocks which are uplifted to the subsoil surface during the deep ripping phase are picked and removed.) Like the heavy-duty class of implement for the first phase, the decompaction (deep subsoiling) of Phase 2 is conducted with the heavy-duty version of the deep subsoiler. More preferable is the angled-leg variety of deep subsoiler (shown in Figures 8 and 13). It minimizes the inversion of the subsoil and topsoil layers while laterally and vertically fracturing the upper half of the previously ripped subsoil layer and all of the topsoil layer by delivering a momentary, wave-like "lifting and shattering" action up through the soil layers as it is pulled.

Pulling-Power of Equipment

Use the following rule of thumb for tractor horsepower (hp) whenever deep ripping and decompaction a significantly impacted site: For both types of implement, have at least 40 hp of tractor pull available for each mounted shank/ leg.

Using the examples of a 3-shank and a 5-shank implement, the respective tractors should have 120 and 200 hp available for fracturing down to the final depth of 20-to-24 inches per phase. Final depth for the deep ripping in Phase 1 is achieved incrementally by a progressive series of passes (see Depth and Patterns of Movement, below); while for Phase 2, the full operating depth of the deep subsoiler is applied from the beginning.

The operating speed for pulling both types of implement should not exceed 2 to 3 mph. At this slow and managed rate of operating speed, maximum functional performance is sustained by the tractor and the implement performing the soil fracturing. Referring to Figure 8, the implement is the 6-leg version of the deep angled-leg subsoiler. Its two outside legs are "chained up" so that only four legs will be engaged (at the maximum depth), requiring no less than 160 hp, (rather than 240 hp) of pull. The 4-wheel drive, articulated-frame tractor in Figure 8 is 174 hp. It will be decompacting this unobstructed, former construction access area simultaneously through 11 inches of replaced topsoil and the upper 12 inches of the previously deep-ripped subsoil. In constricted areas of Phase 1) Deep Ripping, a medium-size tractor with adequate hp, such as the one in Figure 9 pulling a 3-shank deep ripper, may be more maneuverable.

Some industrial-grade variations of ripping implements are attached to power graders and bulldozers. Although highly durable, they are generally not recommended. Typically, the shanks or "teeth" of these rippers are too short and stout; and they are mounted too far apart to achieve the well-distributed type of lateral and vertical fracturing of the soil materials necessary to restore soil permeability and infiltration. In addition, the power graders and bulldozers, as pullers, are far less maneuverable for turns and patterns than the tractor.

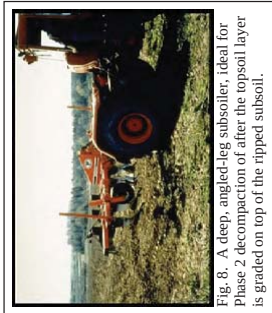


Fig. 8. A deep, angled-leg subsoiler, ideal for Phase 2 decompaction of after the topsoil layer is graded on top of the ripped subsoil.



Fig. 9. This medium tractor is pulling a 3-shank deep ripper. The severely compacted construction access corridor is narrow, and the 120 hp tractor is more maneuverable for Phase 1 deep ripping (subsoil fracturing), here.

Depth and Patterns of Movement

As previously noted both Phase 1 Deep Ripping through significantly compressed, exposed subsoil and Phase 2 Decompaction (deep subsoiling) through the replaced topsoil and upper subsoil need to be performed at maximum capable depth of each implement. With an implement's guide wheels attached, some have a "normal" maximum operating depth of 18 inches, while others may go deeper. In many situations, however, the tractor/implement operator must first remove the guide wheels and other non essential elements from the implement. This adapts the ripper or the deep subsoiler for skillful pulling with its frame only a few inches above surface, while the shanks or legs, fracture the soil material 20-to-24 inches deep.

There may be construction sites where the depth of the exposed subsoil's compression is moderate, e.g.: 12 inches, rather than deep. This can be verified by using a ¾ inch cone penetrometer and a shovel to test the subsoil for its level of compaction, incrementally, every three inches of increasing depth. Once the full thickness of the subsoil's compacted zone is finally "pieced" and there is a significant drop in the psi measurements of the soil penetrometer, the depth/thickness of compaction is determined. This is repeated at several representative locations of the construction site. If the thickness of the site's subsoil compaction is verified as, for example, ten inches, then the Phase 1 Deep Ripping can be correspondingly reduced to the implement's minimum operable depth of 12 inches. However, the Phase 2 simultaneous Decompaction (subsoiling) of an 11 inch thick layer of replaced topsoil and the upper subsoil should run at the subsoiling implements full operating depth.



Fig. 10. An early pass with a 3-shank deep ripper penetrating only 8 inches into this worksite's severely compressed subsoil.



Fig. 11. A repeat run of the 3-shank ripper along the same patterned pass area as Fig. 9; here, incrementally reaching 18 of the needed 22 inches of subsoil fracture.

Typically, three separate series (patterns) are used for both the Phase 1 Deep Ripping and the Phase 2 Decompaction on significantly compacted sites. For Phase 1, each series begins with a moderate depth of rip and, by repeat-pass, continues until full depth is reached. Phase 2 applies the full depth of Decompaction (subsoiling), from the beginning.

Every separate series (pattern) consists of parallel, forward-and-return runs, with each progressive

pass of the implement's legs or shanks evenly staggered between those from the previous pass. This compensates for the shank or leg-spacing on the implement, e.g., with 24-to-30 inches between each shank or leg. The staggered return pass ensures lateral and vertical fracturing actuated every 12 to 15 inches across the densely compressed soil mass.

Large, Unobstructed Areas

For larger easy areas, use the standard patterns of movement:

- The first series (pattern) of passes is applied lengthwise, parallel with the longest spread of the site; gradually progressing across the site's width, with each successive pass.
- The second series runs obliquely, crossing the first series at an angle of about 45 degrees.
- The third series runs at right angle (or 90 degrees), to the first series to complete the fracturing and shattering on severely compacted sites, and avoid leaving large unbroken blocks of compressed soil material. (In certain instances, the third series may be optional, depending on how thoroughly the first two series loosen the material and eliminate large chunks/blocks of material as verified by tests with a ¼-inch cone penetrometer.)



Fig. 12. Moderately dry topsoil is being replaced on the affected site now that Phase 1 deep ripping of the compressed subsoil is complete.



Fig. 13. The same deep, angled-leg subsoiler shown in Fig. 7 is engaged at maximum depth for Phase 2, decompaction (deep soiling), of the replaced topsoil and the upper subsoil materials.

Corridors

In long corridors of limited width and less maneuverability than larger sites, e.g.: along compacted areas used as temporary construction access, a modified series of pattern passes are used.

- First, apply the same initial lengthwise, parallel series of passes described above.

- A second series of passes makes a broad "S" shaped pattern of rips, continually and gradually alternating the "S" curves between opposite edges inside the compacted corridor.
- The third and final series again uses the broad, alternating S pattern, but it is "flip-flopped" to continually cross the previous S pattern along the corridor's centerline. This final series of the S pattern curves back along the edge areas skipped by the second series.

Maintenance and Cost

Once the two-phase practice of Deep Ripping and Decompaction is completed, two items are essential for maintaining a site's soil porosity and permeability for infiltration. They are: planting and maintaining the appropriate ground cover with deep roots to maintain the soil structure (see Figure 15); and keeping the site free of traffic or other weight loads.

Note that site-specific choice of an appropriate vegetative ground-cover seed mix, including the proper seeding ratio of one or more perennial species with a deep taproot system and the proper amount of lime and soil nutrients (fertilizer mix) adapted to the soil-needs, are basic to the final practice of landscaping, i.e: surface tillage, seeding/planting/fertilizing and culti-packing or mulching is applied. The "maintenance" of an effectively deep-ripped and decompacted area is generally limited to the successful perennial (long-term) landscape ground cover; as long as no weight-bearing force of soil compaction is applied.



Fig. 14. The severely compacted soil of a temporary construction yard used daily by heavy equipment for four months; shown before deep ripping, topsoil replacement, and decompaction.



Fig. 15. The same site as Fig. 14 after deep ripping of the exposed subsoil, topsoil replacement, decompaction through the topsoil and upper subsoil and final surface tillage and revegetation to maintain soil permeability and infiltration.

The Deep Ripping and Decompaction practice is, by necessity, more extensive than periodic subsoiling of farmland. The cost of deep ripping and decompaction (deep subsoiling), will vary according to the depth and severity of soil-material compression and the relative amount of tractor and implement time that is required. In some instances, depending on open maneuverability, two-to-three acres of compacted project area may be deep-ripped in one day. In other situations of more severe compaction and - or less maneuverability, as little as one acre may be fully ripped in a day. Generally, if the Phase 1) Deep Ripping is fully effective, the Phase 2) Decompaction should be completed in 2/3 to 3/4 of the time required for Phase 1.

Using the example of two acres of Phase 1) Deep Ripping in one day, at \$1800 per day, the net cost is \$900 per acre. If the Phase 2) Decompaction or deep subsoiling takes 3/4 the time as Phase 1, it costs \$675 per acre for a combined total of \$1575 per acre to complete the practice (these figures do not include the cost of the separate practice of topsoil stripping and replacement). Due to the many variables, it must be recognized that cost will be determined by the specific conditions or constraints of the site and the availability of proper equipment.

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- Examples of implements:
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Appendix F:
Post-Construction Inspections and Maintenance

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POST CONSTRUCTION INSPECTIONS AND MAINTENANCE

1. SITE COVER

a. Inspections

Site cover and associated structures and embankments should be inspected periodically for the first few months following construction and then on a biannual basis. Site inspections should also be performed following all major (i.e., intense storms, thunderstorms, cloud burst, etc.) storm events. Items to check for include (but are not limited to):

- i. Differential settlement of embankments, cracking or erosion.
- ii. Lack of vigor and density of grass turf.
- iii. Accumulation of sediments or litter on lawn areas, paved areas, or within catch basin sumps.
- iv. Accumulation of pollutants, including oils or grease, in catch basin sumps.
- v. Damage or fatigue of storm sewer structures or associated components.

b. Mowing and Sweeping

Vegetated areas and landscaping should be maintained to promote vigorous and dense growth. Lawn areas should be mowed at least three times a year (more frequent mowing may be desired for aesthetic reasons). Resultant yard waste shall be collected and disposed of off-site.

Paved areas should be swept at least twice a year. Additional sweeping may be appropriate in the early spring for removal of deicing materials

c. Debris and Litter Removal

Accumulation of litter and debris should be removed during each mowing or sweep operation.

d. Structural Repair or Replacement

Components of the system which require repair or replacement should be addressed immediately following identification.

e. Catch Basins

The frequency for cleanout of catch basin sumps will depend on the efficiency of mowing, sweeping, and debris and litter removal. Sumps should be cleaned when accumulation of sediments are within six inches of the catch basin outlet pipe.

Disposal of material from catch basins sumps, drainage manholes, and trench drains shall be in accordance with local, state, and federal guidelines.

f. Grassed Swales

Swale maintenance will include periodic mowing, occasional spot reseeding and weed control to keep grass cover dense and vigorous. Resultant yard waste shall be

collected and disposed of off-site. Application of fertilizers and pesticides should be restricted or limited.

g. Rip-rap Dissipation structures

Rip-rap used to dissipate energy from pipe outfalls shall be cleaned or replaced when it becomes overburdened with silt or sediment.

h. Winter Maintenance

To prevent impacts to storm water management facilities, the following winter maintenance limitations, restrictions, or requirements are recommended:

- i. Remove snow and ice from inlet structures, basin inlet and outlet structures and away from culvert end sections.
- ii. Snow removed from paved areas should not be piled at inlets/outlets of the storm water management basin.
- iii. Use of deicing materials should be limited to sand and “environmentally friendly” chemical products. Use of salt mixtures should be kept to a minimum.
- iv. Sand used for deicing should be clean, coarse material free of fines, silt, and clay.
- v. Materials used for deicing should be removed during the early spring by sweeping and/ or vacuuming.

2. BIORETENTION FILTERS

a. Inspection

Bioretention filters should be inspected periodically for the first few months after construction and then on a monthly basis. Bioretention filters should be inspected after all major storm events. Items to check for include (but are not limited to):

- i. Checking embankments for subsidence, erosion, cracking, undesirable tree and shrub growth and the presence of burrowing animals.
- ii. Check inlet for erosion.
- iii. Evidence of standing water (i.e. does it dewater between storms).
- iv. Health and vigor of vegetation (trees, shrubs, grass, flowers, mulch).
- v. Accumulation of sediment or yard waste.
- vi. Evidence of clogging at inlets or outlets.
- vii. Condition of the overflow spillway.
- viii. Ensure grass is well established.
- ix. Grass height not greater than six inches.

b. Mowing

Mow grass areas within bioretention facility to ensure that grass height does not exceed 6-inches. Undesirable trees and shrubs should be removed. Resultant yard wastes shall be collected and disposed of off-site

c. Debris, Trash and Litter Control

Removal of debris and litter shall be accomplished during mowing operations. Inlet structures should be cleared of all debris and litter.

d. Structural Repairs and Replacement

Components of the bioretention filter, which require repair or replacement, should be addressed immediately following identification. This includes treating and or replacing diseased trees and shrub, fertilizing as necessary, replacing mulch where bare spots appear, and filter beds.

e. Erosion and Sediment Control

Sources of sedimentation, specifically eroded areas in upland drainage areas, should be stabilized immediately upon identification. Stabilization should be with vegetative practices or other erosion control practices when vegetative measures do not prove effective.

Soil slumpage, erosion of the embankments or around inlets/outlets, and cracking should be stabilized and repaired immediately upon identification.

f. Sediment Removal

Sediments that accumulate in the bioretention filter should be removed annually to prevent clogging of inlet or outlet structures. Disposal of material removed from bioretention filter shall be in accordance with local, state, and federal guidelines.

3. INFILTRATION BASINS

a. Inspections

Infiltration Basins should be inspected periodically for the first few months after construction and then on an annual basis. Infiltration Basins should be inspected after major storm events to ensure inlets and outlets remain clear. Items to check for include (but are not limited to):

- i. Differential settlement of embankments.
- ii. Cracking, erosion, or seepage through embankments.
- iii. Evidence of clogging at inlets or outlets.
- iv. Erosion of the bottom surface/flow path through the basin.
- v. Brush, shrub, or tree growth on embankments.
- vi. Lack of vigor and density of grass turf within the basin.

b. Mowing

The side slopes, embankments, inlets, and overflow spillways of the detention basins should be mowed at least three times a year and resultant yard wastes collected and disposed of off-site.

c. Debris and Litter Control

Removal of debris and litter should be accomplished during mowing operations. Inlet and outlet structures should be cleared of all debris and litter.

d. Structural repairs and Replacement

Components of the infiltration basin, which require repair or replacement, should be addressed immediately following identification.

e. Erosion Control

Sources of sedimentation, specifically eroded areas in upland drainage areas, should be stabilized immediately upon identification. Stabilization should be with vegetative practices or other erosion control practices when vegetative measures do not prove effective.

Soil slumpage, erosion of the basin embankment or around inlets/outlets, and cracking should be stabilized and repaired immediately upon identification. Repair, replacement, or addition of rip-rap aprons, channels or embankments should be pursued as required.

f. Sediment removal

Sediments, which accumulate in the infiltration basin, should be removed immediately to prevent clogging.

4. UNDERGROUND INFILTRATION SYSTEM

a. Inspections

Underground infiltration systems should be inspected periodically for the first few months after construction and then on an annual basis. Underground infiltration systems should be inspected after major storm events to ensure inlets and outlets remain clear. Items to check for include (but are not limited to):

- i. Measure the sediment buildup at each riser.
- ii. Inspect each header, all laterals, inlets, and outlet pipes for sediment buildup, obstructions or other problems. Cracking, erosion or seepage through embankments.

Refer to the attached Stormtech "Isolator Row Operations and Maintenance Manual" for the manufacturer's inspection and maintenance requirements.

b. Debris and Litter Control

Inlet and outlet structures should be cleared of all debris and litter.

c. Structural repairs and Replacement

Components of the underground infiltration system, which require repair or replacement, should be addressed immediately following identification.

d. Sedimentation Control

Sources of sedimentation, specifically eroded areas in upland drainage areas, should be stabilized immediately upon identification. Stabilization should be with vegetative practices or other erosion control practices when vegetative measures do not prove effective.

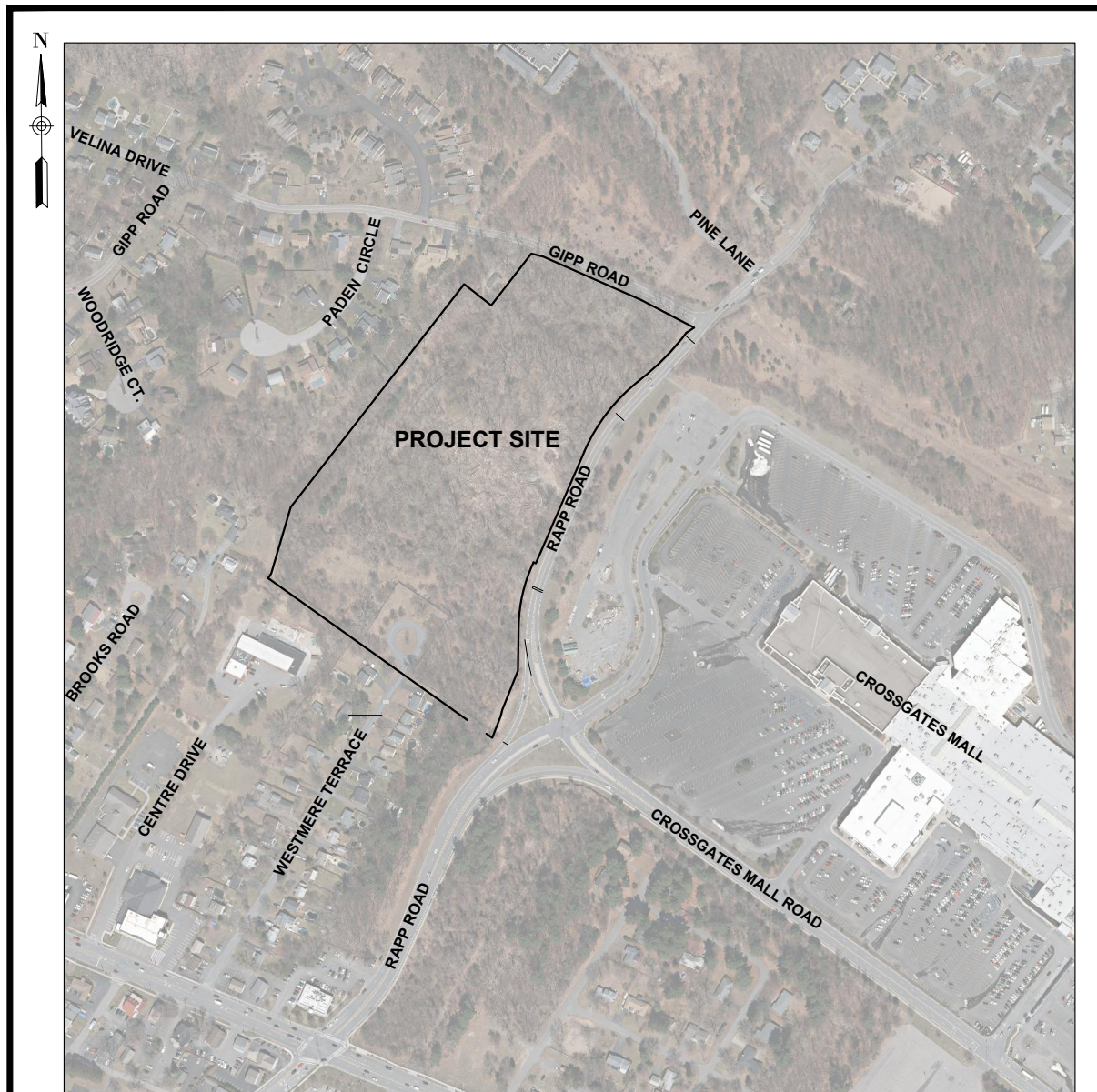
e. Sediment removal

Sediments, which accumulate in the underground infiltration system, should be removed when it reaches 4% of the pipe diameter to prevent clogging of the outlet. A typical clean-out cycle should be between 5 to 10 years with more frequent cleanings near inlet and outlet structures. The unit may require cleaning in the event of a spill of a toxic or foreign substance. Disposal of material from the underground infiltration systems shall be in accordance with local, state, and federal guidelines.

Underground infiltration systems are confined space environment and only properly trained personnel possessing the necessary safety equipment should enter the systems to perform maintenance or inspection.

Appendix G:
Figures

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ALTERATION OF THIS DRAWING, EXCEPT BY A LICENSED P.E. IS ILLEGAL. ANY ALTERATION BY A P.E. MUST BE INDICATED AND BEAR THE APPROPRIATE SEAL, SIGNATURE AND DATE OF ALTERATION.



4 BRITISH AMERICAN BLVD.
LATHAM, NY 12110
518-439-8235
labellapc.com

THE APEX AT CROSSGATES

SITE LOCATION MAP

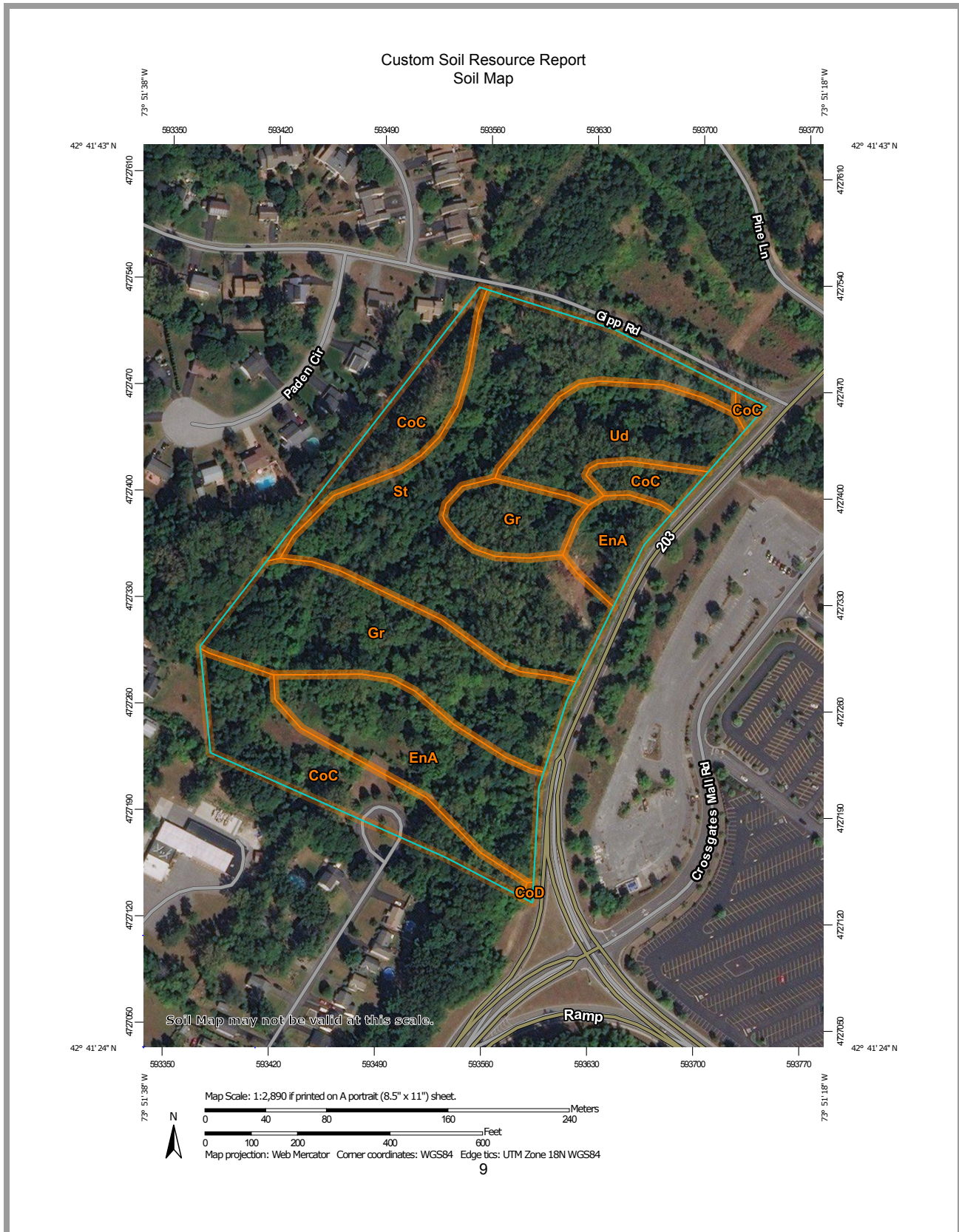
TOWN OF GUILDERLAND, ALBANY COUNTY, NEW YORK

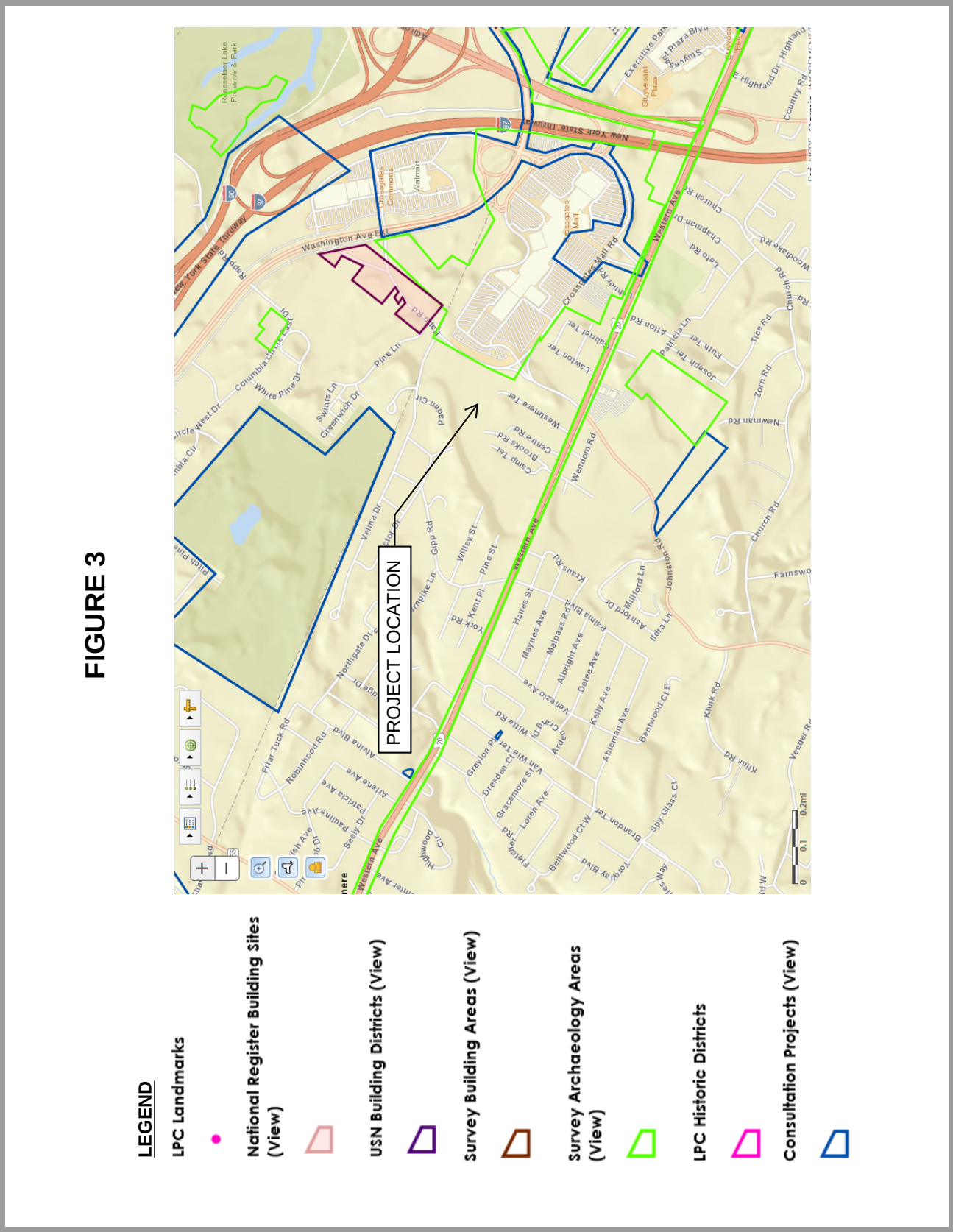
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project no. 2222678	
sheet no.	

FIG 1

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2222678







**Parks, Recreation
and Historic Preservation**

ANDREW M. CUOMO
Governor

ERIK KULLESEID
Acting Commissioner

March 11, 2019

Kenneth Kovalchik
Town Planner
Town of Guilderland
PO Box 339
Guilderland, NY 12084-0339
(via email)

Re: SEQRA/DEC
Proposed Rapp Road Apartments/Townhomes/New Construction
Gipp and Rapp Roads, Guilderland, Albany County
19PR01578

Dear Mr. Kovalchik:

Thank you for requesting the comments of the Office of Parks, Recreation and Historic Preservation (OPRHP) as part of your SEQRA process. These comments are those of the Division for Historic Preservation and relate only to Historic/Cultural resources. They do not include potential environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the State Environmental Quality Review Act (New York Environmental Conservation Law Article 8) and its implementing regulations (6 NYCRR Part 617).

Our office has assessed both the archaeological and historical impacts that might be associated with this action. Based upon this review, it is the OPRHP's opinion that the project, as submitted, will not impact cultural resources in or eligible for inclusion in the State and National Register of Historic Places.

If I can be of any further assistance, I can be reached at john.bonafide@parks.ny.gov or (518) 268-2166.

Sincerely,

A handwritten signature in black ink, appearing to read "John A. Bonafide".

John A. Bonafide
Director,
Technical Preservation Services Bureau
Agency Historic Preservation Officer

Division for Historic Preservation

P.O. Box 189, Waterford, New York 12188-0189 • (518) 237-8643 • www.nysparks.com

Figure 4



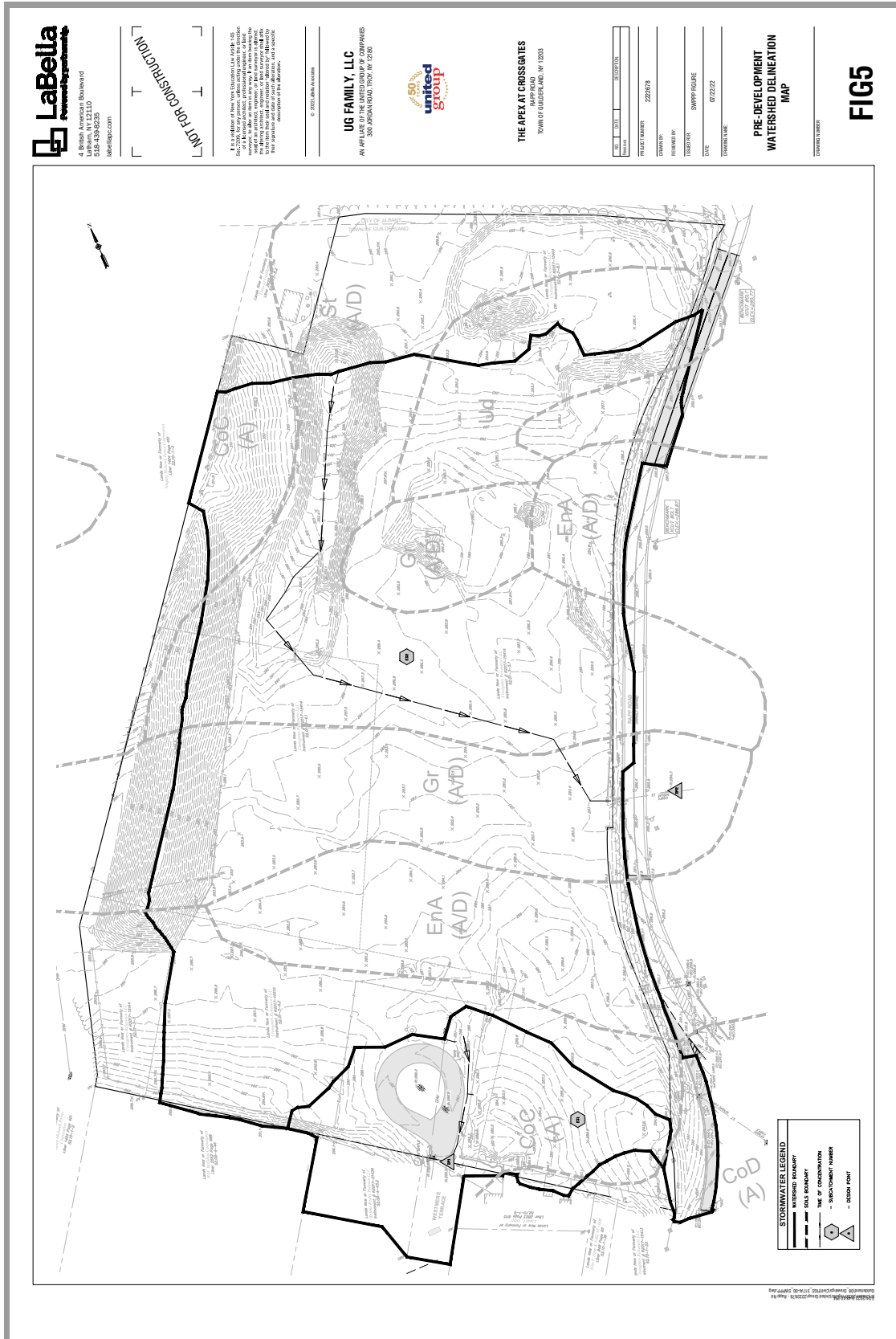
December 17, 2018

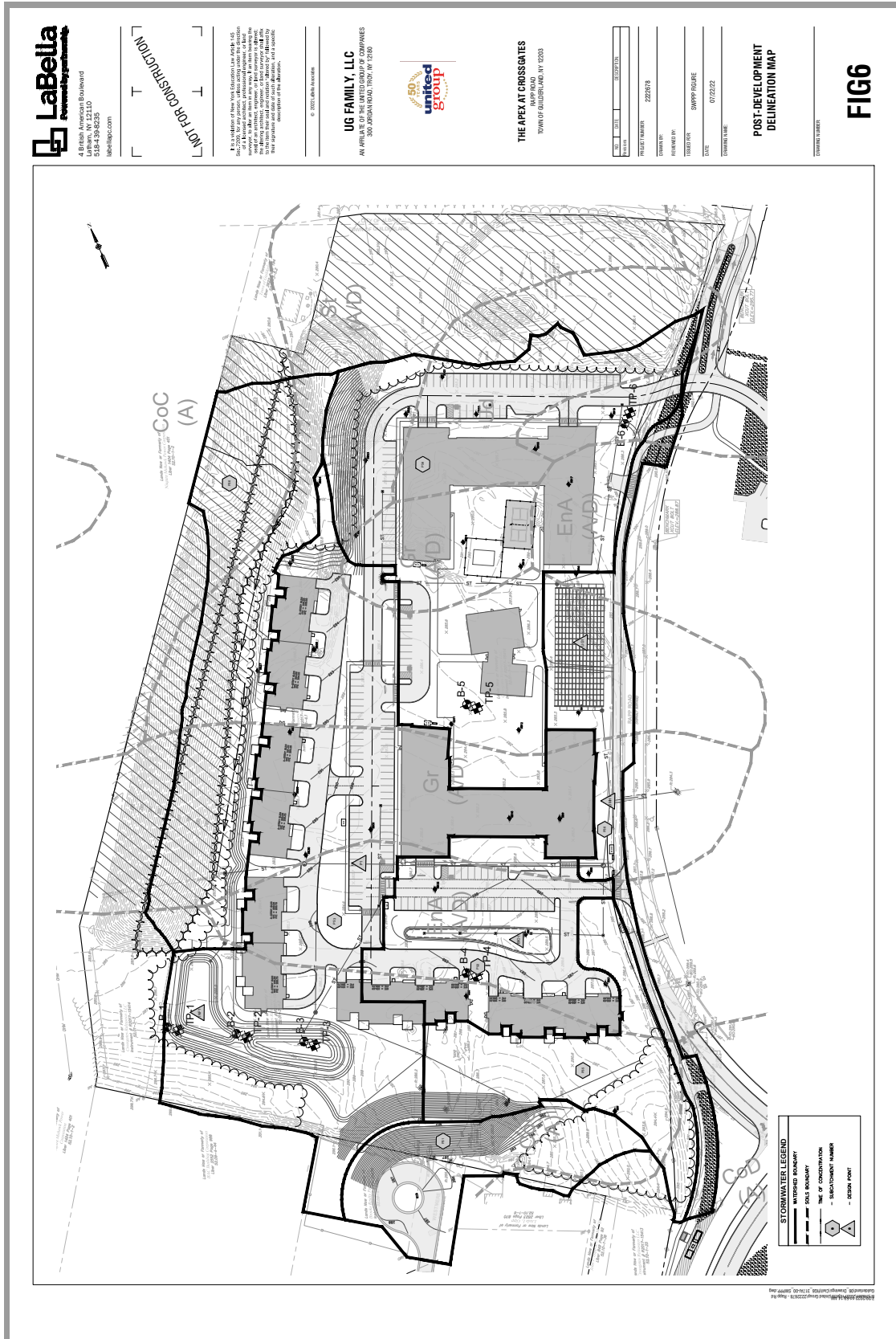
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0 0.1 0.2 0.35 0.4 mi
0 0.175 0.35 0.7 km

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GEBCO, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), Swisstopo, © OpenStreetMap contributors, and the GIS User Community

NYS Department of Environmental Conservation
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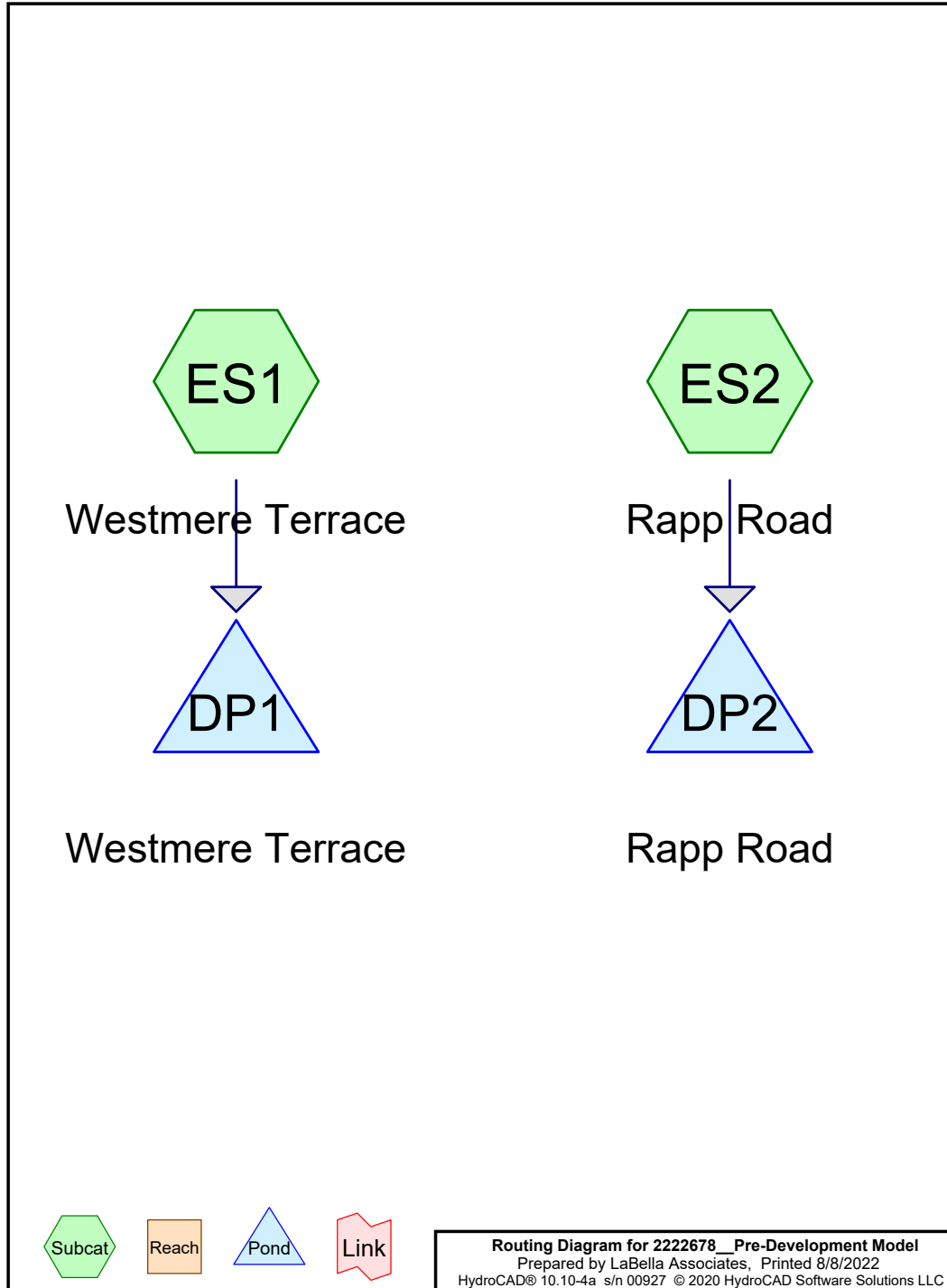


Appendix H:
Chazen Certifying
Professionals Letter

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Appendix I: Pre-Development Stormwater Modeling

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2222678__Pre-Development Model

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Page 2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
1.348	49	50-75% Grass cover, Fair, HSG A (ES1, ES2)
2.406	83	Brush, Poor, HSG D (ES2)
0.221	94	Compacted Dirt, HSG D (ES2)
0.350	30	Meadow, non-grazed, HSG A (ES2)
0.276	78	Meadow, non-grazed, HSG D (ES2)
0.307	98	Paved parking, HSG A (ES1)
0.099	98	Paved roads w/curbs & sewers, HSG A (ES2)
0.087	98	Paved roads w/curbs & sewers, HSG D (ES2)
0.055	98	Roofs, HSG A (ES1)
3.162	43	Woods/grass comb., Fair, HSG A (ES1, ES2)
7.897	82	Woods/grass comb., Fair, HSG D (ES2)
16.209	71	TOTAL AREA

2222678__Pre-Development Model*Type II 24-hr 1-year Rainfall=2.21"*

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Page 3

Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

SubcatchmentES1: Westmere Terrace Runoff Area=95,389 sf 16.51% Impervious Runoff Depth=0.04"
Flow Length=194' Tc=14.7 min CN=55 Runoff=0.01 cfs 0.007 af

SubcatchmentES2: Rapp Road Runoff Area=610,676 sf 1.33% Impervious Runoff Depth=0.45"
Flow Length=911' Tc=26.7 min CN=74 Runoff=4.76 cfs 0.529 af

Pond DP1: Westmere Terrace Inflow=0.01 cfs 0.007 af
Primary=0.01 cfs 0.007 af

Pond DP2: Rapp Road Inflow=4.76 cfs 0.529 af
Primary=4.76 cfs 0.529 af

Total Runoff Area = 16.209 ac Runoff Volume = 0.536 af Average Runoff Depth = 0.40"
96.62% Pervious = 15.661 ac 3.38% Impervious = 0.548 ac

2222678__Pre-Development Model

Type II 24-hr 1-year Rainfall=2.21"

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Page 4

Summary for Subcatchment ES1: Westmere Terrace

Runoff = 0.01 cfs @ 15.37 hrs, Volume= 0.007 af, Depth= 0.04"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Type II 24-hr 1-year Rainfall=2.21"

Area (sf)	CN	Description
13,366	98	Paved parking, HSG A
40,154	49	50-75% Grass cover, Fair, HSG A
39,491	43	Woods/grass comb., Fair, HSG A
2,378	98	Roofs, HSG A
95,389	55	Weighted Average
79,645	46	83.49% Pervious Area
15,744	98	16.51% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.3	100	0.0182	0.15		Sheet Flow, Grass: Short n= 0.150 P2= 2.59"
3.4	94	0.0044	0.46		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
14.7	194	Total			

Summary for Subcatchment ES2: Rapp Road

Runoff = 4.76 cfs @ 12.25 hrs, Volume= 0.529 af, Depth= 0.45"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Type II 24-hr 1-year Rainfall=2.21"

Area (sf)	CN	Description
4,328	98	Paved roads w/curbs & sewers, HSG A
18,567	49	50-75% Grass cover, Fair, HSG A
3,787	98	Paved roads w/curbs & sewers, HSG D
15,258	30	Meadow, non-grazed, HSG A
12,016	78	Meadow, non-grazed, HSG D
104,825	83	Brush, Poor, HSG D
* 9,639	94	Compacted Dirt, HSG D
98,265	43	Woods/grass comb., Fair, HSG A
343,991	82	Woods/grass comb., Fair, HSG D
610,676	74	Weighted Average
602,561	74	98.67% Pervious Area
8,115	98	1.33% Impervious Area

2222678__Pre-Development Model

Type II 24-hr 1-year Rainfall=2.21"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.7	100	0.0572	0.11		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.59"
2.8	193	0.0519	1.14		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.0	70	0.0284	1.18		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
4.5	342	0.0321	1.25		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
2.5	118	0.0253	0.80		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.2	88	0.0137	9.13	28.69	Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.012 Corrugated PE, smooth interior
26.7	911	Total			

Summary for Pond DP1: Westmere Terrace

Inflow Area = 2.190 ac, 16.51% Impervious, Inflow Depth = 0.04" for 1-year event
 Inflow = 0.01 cfs @ 15.37 hrs, Volume= 0.007 af
 Primary = 0.01 cfs @ 15.37 hrs, Volume= 0.007 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Pond DP2: Rapp Road

Inflow Area = 14.019 ac, 1.33% Impervious, Inflow Depth = 0.45" for 1-year event
 Inflow = 4.76 cfs @ 12.25 hrs, Volume= 0.529 af
 Primary = 4.76 cfs @ 12.25 hrs, Volume= 0.529 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

2222678__Pre-Development Model*Type II 24-hr 10-year Rainfall=3.74"*

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Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

SubcatchmentES1: Westmere TerraceRunoff Area=95,389 sf 16.51% Impervious Runoff Depth=0.43"
Flow Length=194' Tc=14.7 min CN=55 Runoff=0.74 cfs 0.079 af**SubcatchmentES2: Rapp Road**Runoff Area=610,676 sf 1.33% Impervious Runoff Depth=1.41"
Flow Length=911' Tc=26.7 min CN=74 Runoff=17.78 cfs 1.645 af**Pond DP1: Westmere Terrace**Inflow=0.74 cfs 0.079 af
Primary=0.74 cfs 0.079 af**Pond DP2: Rapp Road**Inflow=17.78 cfs 1.645 af
Primary=17.78 cfs 1.645 af**Total Runoff Area = 16.209 ac Runoff Volume = 1.724 af Average Runoff Depth = 1.28"**
96.62% Pervious = 15.661 ac 3.38% Impervious = 0.548 ac

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Type II 24-hr 10-year Rainfall=3.74"

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Summary for Subcatchment ES1: Westmere Terrace

Runoff = 0.74 cfs @ 12.11 hrs, Volume= 0.079 af, Depth= 0.43"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Type II 24-hr 10-year Rainfall=3.74"

Area (sf)	CN	Description
13,366	98	Paved parking, HSG A
40,154	49	50-75% Grass cover, Fair, HSG A
39,491	43	Woods/grass comb., Fair, HSG A
2,378	98	Roofs, HSG A
95,389	55	Weighted Average
79,645	46	83.49% Pervious Area
15,744	98	16.51% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.3	100	0.0182	0.15		Sheet Flow, Grass: Short n= 0.150 P2= 2.59"
3.4	94	0.0044	0.46		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
14.7	194	Total			

Summary for Subcatchment ES2: Rapp Road

Runoff = 17.78 cfs @ 12.22 hrs, Volume= 1.645 af, Depth= 1.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Type II 24-hr 10-year Rainfall=3.74"

Area (sf)	CN	Description
4,328	98	Paved roads w/curbs & sewers, HSG A
18,567	49	50-75% Grass cover, Fair, HSG A
3,787	98	Paved roads w/curbs & sewers, HSG D
15,258	30	Meadow, non-grazed, HSG A
12,016	78	Meadow, non-grazed, HSG D
104,825	83	Brush, Poor, HSG D
* 9,639	94	Compacted Dirt, HSG D
98,265	43	Woods/grass comb., Fair, HSG A
343,991	82	Woods/grass comb., Fair, HSG D
610,676	74	Weighted Average
602,561	74	98.67% Pervious Area
8,115	98	1.33% Impervious Area

2222678__Pre-Development Model

Type II 24-hr 10-year Rainfall=3.74"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.7	100	0.0572	0.11		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.59"
2.8	193	0.0519	1.14		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.0	70	0.0284	1.18		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
4.5	342	0.0321	1.25		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
2.5	118	0.0253	0.80		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.2	88	0.0137	9.13	28.69	Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.012 Corrugated PE, smooth interior
26.7	911	Total			

Summary for Pond DP1: Westmere Terrace

Inflow Area = 2.190 ac, 16.51% Impervious, Inflow Depth = 0.43" for 10-year event
 Inflow = 0.74 cfs @ 12.11 hrs, Volume= 0.079 af
 Primary = 0.74 cfs @ 12.11 hrs, Volume= 0.079 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Pond DP2: Rapp Road

Inflow Area = 14.019 ac, 1.33% Impervious, Inflow Depth = 1.41" for 10-year event
 Inflow = 17.78 cfs @ 12.22 hrs, Volume= 1.645 af
 Primary = 17.78 cfs @ 12.22 hrs, Volume= 1.645 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

2222678__Pre-Development Model*Type II 24-hr 100-year Rainfall=6.34"*

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Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

SubcatchmentES1: Westmere TerraceRunoff Area=95,389 sf 16.51% Impervious Runoff Depth=1.72"
Flow Length=194' Tc=14.7 min CN=55 Runoff=4.57 cfs 0.313 af**SubcatchmentES2: Rapp Road**Runoff Area=610,676 sf 1.33% Impervious Runoff Depth=3.47"
Flow Length=911' Tc=26.7 min CN=74 Runoff=45.57 cfs 4.057 af**Pond DP1: Westmere Terrace**Inflow=4.57 cfs 0.313 af
Primary=4.57 cfs 0.313 af**Pond DP2: Rapp Road**Inflow=45.57 cfs 4.057 af
Primary=45.57 cfs 4.057 af**Total Runoff Area = 16.209 ac Runoff Volume = 4.371 af Average Runoff Depth = 3.24"**
96.62% Pervious = 15.661 ac 3.38% Impervious = 0.548 ac

2222678__Pre-Development Model

Type II 24-hr 100-year Rainfall=6.34"

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Summary for Subcatchment ES1: Westmere Terrace

Runoff = 4.57 cfs @ 12.08 hrs, Volume= 0.313 af, Depth= 1.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Type II 24-hr 100-year Rainfall=6.34"

Area (sf)	CN	Description
13,366	98	Paved parking, HSG A
40,154	49	50-75% Grass cover, Fair, HSG A
39,491	43	Woods/grass comb., Fair, HSG A
2,378	98	Roofs, HSG A
95,389	55	Weighted Average
79,645	46	83.49% Pervious Area
15,744	98	16.51% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.3	100	0.0182	0.15		Sheet Flow, Grass: Short n= 0.150 P2= 2.59"
3.4	94	0.0044	0.46		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
14.7	194	Total			

Summary for Subcatchment ES2: Rapp Road

Runoff = 45.57 cfs @ 12.20 hrs, Volume= 4.057 af, Depth= 3.47"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Type II 24-hr 100-year Rainfall=6.34"

Area (sf)	CN	Description
4,328	98	Paved roads w/curbs & sewers, HSG A
18,567	49	50-75% Grass cover, Fair, HSG A
3,787	98	Paved roads w/curbs & sewers, HSG D
15,258	30	Meadow, non-grazed, HSG A
12,016	78	Meadow, non-grazed, HSG D
104,825	83	Brush, Poor, HSG D
* 9,639	94	Compacted Dirt, HSG D
98,265	43	Woods/grass comb., Fair, HSG A
343,991	82	Woods/grass comb., Fair, HSG D
610,676	74	Weighted Average
602,561	74	98.67% Pervious Area
8,115	98	1.33% Impervious Area

2222678__Pre-Development Model

Type II 24-hr 100-year Rainfall=6.34"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.7	100	0.0572	0.11		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.59"
2.8	193	0.0519	1.14		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.0	70	0.0284	1.18		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
4.5	342	0.0321	1.25		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
2.5	118	0.0253	0.80		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.2	88	0.0137	9.13	28.69	Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.012 Corrugated PE, smooth interior
26.7	911	Total			

Summary for Pond DP1: Westmere Terrace

Inflow Area = 2.190 ac, 16.51% Impervious, Inflow Depth = 1.72" for 100-year event
 Inflow = 4.57 cfs @ 12.08 hrs, Volume= 0.313 af
 Primary = 4.57 cfs @ 12.08 hrs, Volume= 0.313 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

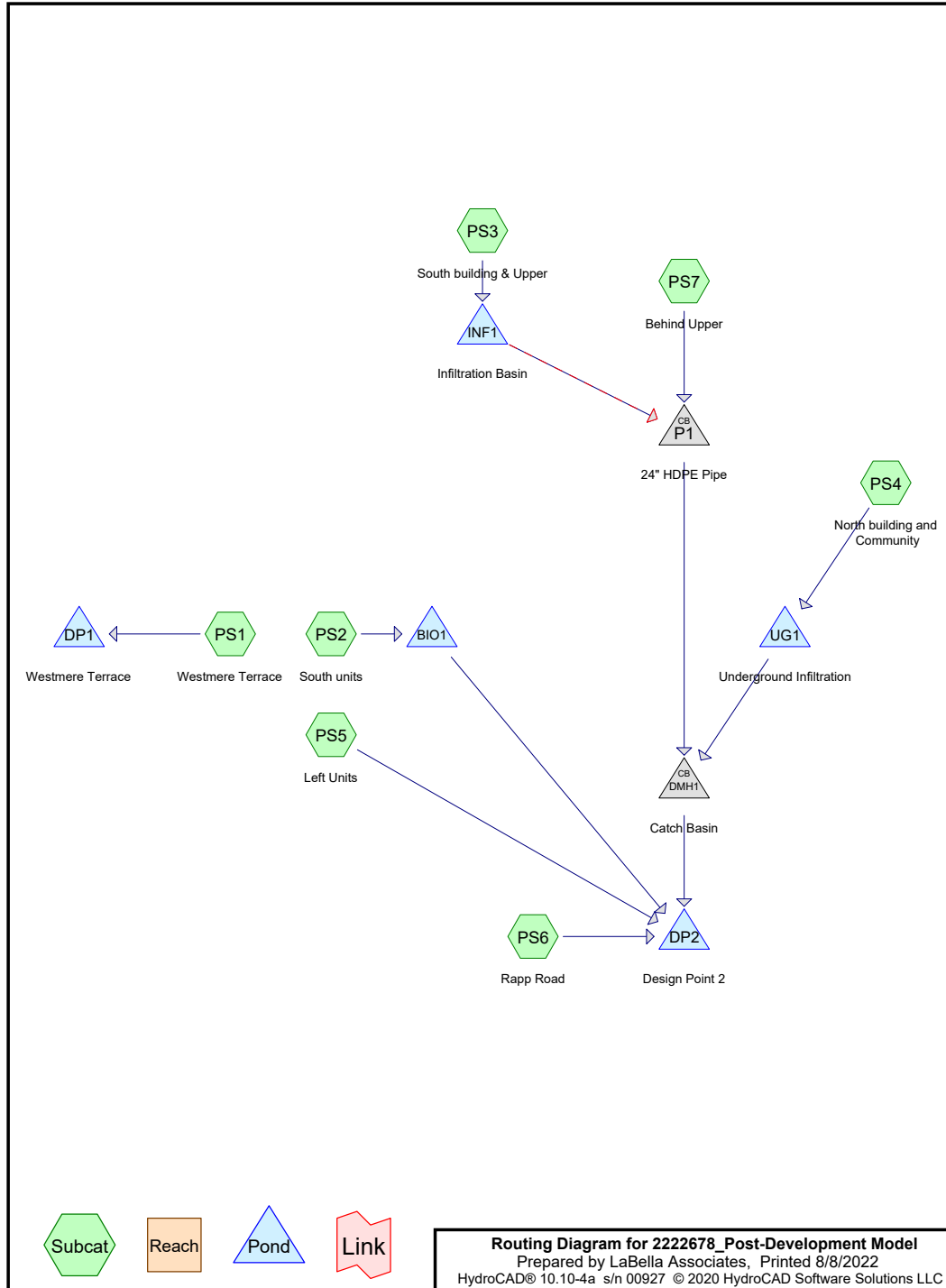
Summary for Pond DP2: Rapp Road

Inflow Area = 14.019 ac, 1.33% Impervious, Inflow Depth = 3.47" for 100-year event
 Inflow = 45.57 cfs @ 12.20 hrs, Volume= 4.057 af
 Primary = 45.57 cfs @ 12.20 hrs, Volume= 4.057 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Appendix J: Post-Development Stormwater Modeling

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2222678_Post-Development Model

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Page 2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
1.867	39	>75% Grass cover, Good, HSG A (PS1, PS5)
5.895	80	>75% Grass cover, Good, HSG D (PS2, PS3, PS4, PS5, PS6)
0.202	98	Paved parking, HSG A (PS1)
3.607	98	Paved parking, HSG D (PS2, PS3, PS4, PS7)
0.311	98	Paved roads w/curbs & sewers, HSG D (PS6)
2.491	98	Roofs, HSG D (PS2, PS3, PS4)
0.727	43	Woods/grass comb., Fair, HSG A (PS7)
1.109	82	Woods/grass comb., Fair, HSG D (PS7)
16.209	81	TOTAL AREA

2222678_Post-Development Model*Type II 24-hr 1-year Rainfall=2.21"*

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Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

SubcatchmentPS1: Westmere Terrace Runoff Area=44,358 sf 19.80% Impervious Runoff Depth=0.01"
Tc=6.0 min CN=51 Runoff=0.00 cfs 0.001 af

SubcatchmentPS2: South units Runoff Area=69,858 sf 63.23% Impervious Runoff Depth=1.35"
Tc=6.0 min CN=91 Runoff=3.80 cfs 0.180 af

SubcatchmentPS3: South building & Runoff Area=214,271 sf 53.38% Impervious Runoff Depth=1.28"
Tc=6.0 min CN=90 Runoff=11.08 cfs 0.523 af

SubcatchmentPS4: North building and Runoff Area=178,692 sf 50.80% Impervious Runoff Depth=1.20"
Tc=6.0 min CN=89 Runoff=8.78 cfs 0.412 af

SubcatchmentPS5: Left Units Runoff Area=55,948 sf 0.00% Impervious Runoff Depth=0.00"
Tc=6.0 min CN=46 Runoff=0.00 cfs 0.000 af

SubcatchmentPS6: Rapp Road Runoff Area=46,660 sf 29.07% Impervious Runoff Depth=0.95"
Tc=6.0 min CN=85 Runoff=1.83 cfs 0.085 af

SubcatchmentPS7: Behind Upper Runoff Area=96,271 sf 16.90% Impervious Runoff Depth=0.39"
Flow Length=691' Tc=23.6 min CN=72 Runoff=0.64 cfs 0.071 af

Pond BIO1: Peak Elev=286.32' Storage=2,814 cf Inflow=3.80 cfs 0.180 af
Discarded=0.03 cfs 0.088 af Primary=2.56 cfs 0.093 af Outflow=2.60 cfs 0.180 af

Pond DMH1: Catch Basin Peak Elev=280.82' Inflow=0.64 cfs 0.071 af
24.0" Round Culvert n=0.012 L=91.0' S=0.0049 '/' Outflow=0.64 cfs 0.071 af

Pond DP1: Westmere Terrace Inflow=0.00 cfs 0.001 af
Primary=0.00 cfs 0.001 af

Pond DP2: Design Point 2 Inflow=4.23 cfs 0.249 af
Primary=4.23 cfs 0.249 af

Pond INF1: Infiltration Basin Peak Elev=283.13' Storage=8,838 cf Inflow=11.08 cfs 0.523 af
Discarded=0.89 cfs 0.523 af Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.89 cfs 0.523 af

Pond P1: 24" HDPE Pipe Peak Elev=282.89' Inflow=0.64 cfs 0.071 af
24.0" Round Culvert n=0.012 L=599.8' S=0.0034 '/' Outflow=0.64 cfs 0.071 af

Pond UG1: Underground Infiltration Peak Elev=285.44' Storage=0.091 af Inflow=8.78 cfs 0.412 af
Discarded=2.24 cfs 0.412 af Primary=0.00 cfs 0.000 af Outflow=2.24 cfs 0.412 af

Total Runoff Area = 16.209 ac Runoff Volume = 1.271 af Average Runoff Depth = 0.94"
59.22% Pervious = 9.598 ac 40.78% Impervious = 6.611 ac

2222678_Post-Development Model*Type II 24-hr 1-year Rainfall=2.21"*

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Summary for Subcatchment PS1: Westmere Terrace

Runoff = 0.00 cfs @ 24.01 hrs, Volume= 0.001 af, Depth= 0.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-year Rainfall=2.21"

Area (sf)	CN	Description
8,785	98	Paved parking, HSG A
35,573	39	>75% Grass cover, Good, HSG A
44,358	51	Weighted Average
35,573	39	80.20% Pervious Area
8,785	98	19.80% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Subcatchment PS2: South units

Runoff = 3.80 cfs @ 11.97 hrs, Volume= 0.180 af, Depth= 1.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-year Rainfall=2.21"

Area (sf)	CN	Description
29,969	98	Paved parking, HSG D
25,688	80	>75% Grass cover, Good, HSG D
14,201	98	Roofs, HSG D
69,858	91	Weighted Average
25,688	80	36.77% Pervious Area
44,170	98	63.23% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Subcatchment PS3: South building & Upper

Runoff = 11.08 cfs @ 11.97 hrs, Volume= 0.523 af, Depth= 1.28"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-year Rainfall=2.21"

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Type II 24-hr 1-year Rainfall=2.21"

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Area (sf)	CN	Description
52,054	98	Paved parking, HSG D
99,883	80	>75% Grass cover, Good, HSG D
62,334	98	Roofs, HSG D
214,271	90	Weighted Average
99,883	80	46.62% Pervious Area
114,388	98	53.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Subcatchment PS4: North building and Community

Runoff = 8.78 cfs @ 11.97 hrs, Volume= 0.412 af, Depth= 1.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Type II 24-hr 1-year Rainfall=2.21"

Area (sf)	CN	Description
58,806	98	Paved parking, HSG D
87,913	80	>75% Grass cover, Good, HSG D
31,973	98	Roofs, HSG D
178,692	89	Weighted Average
87,913	80	49.20% Pervious Area
90,779	98	50.80% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Subcatchment PS5: Left Units

Runoff = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Type II 24-hr 1-year Rainfall=2.21"

Area (sf)	CN	Description
10,211	80	>75% Grass cover, Good, HSG D
45,737	39	>75% Grass cover, Good, HSG A
55,948	46	Weighted Average
55,948	46	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

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Type II 24-hr 1-year Rainfall=2.21"

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Summary for Subcatchment PS6: Rapp Road

Runoff = 1.83 cfs @ 11.98 hrs, Volume= 0.085 af, Depth= 0.95"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-year Rainfall=2.21"

Area (sf)	CN	Description
33,095	80	>75% Grass cover, Good, HSG D
13,565	98	Paved roads w/curbs & sewers, HSG D
46,660	85	Weighted Average
33,095	80	70.93% Pervious Area
13,565	98	29.07% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Subcatchment PS7: Behind Upper

Runoff = 0.64 cfs @ 12.21 hrs, Volume= 0.071 af, Depth= 0.39"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-year Rainfall=2.21"

Area (sf)	CN	Description
31,671	43	Woods/grass comb., Fair, HSG A
48,327	82	Woods/grass comb., Fair, HSG D
16,273	98	Paved parking, HSG D
96,271	72	Weighted Average
79,998	67	83.10% Pervious Area
16,273	98	16.90% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.5	12	0.0833	0.08		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.59"
0.8	7	0.4432	0.14		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.59"
8.1	81	0.1975	0.17		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.59"
0.4	40	0.0992	1.57		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
11.8	551	0.0123	0.78		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
23.6	691	Total			

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Type II 24-hr 1-year Rainfall=2.21"

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Summary for Pond BIO1:

Inflow Area = 1.604 ac, 63.23% Impervious, Inflow Depth = 1.35" for 1-year event
 Inflow = 3.80 cfs @ 11.97 hrs, Volume= 0.180 af
 Outflow = 2.60 cfs @ 12.04 hrs, Volume= 0.180 af, Atten= 32%, Lag= 3.9 min
 Discarded = 0.03 cfs @ 12.04 hrs, Volume= 0.088 af
 Primary = 2.56 cfs @ 12.04 hrs, Volume= 0.093 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 286.32' @ 12.04 hrs Surf.Area= 5,636 sf Storage= 2,814 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 372.4 min (1,186.4 - 814.0)

Volume	Invert	Avail.Storage	Storage Description
#1	285.75'	3,829 cf	Ponding (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
285.75	3,581	0	0
286.00	5,050	1,079	1,079
286.50	5,952	2,751	3,829

Device	Routing	Invert	Outlet Devices
#1	Discarded	285.75'	0.250 in/hr Exfiltration over Surface area
#2	Primary	286.20'	17.0" Horiz. Orifice/Grate X 4.00 C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.03 cfs @ 12.04 hrs HW=286.32' (Free Discharge)

↑ **1=Exfiltration** (Exfiltration Controls 0.03 cfs)

Primary OutFlow Max=2.56 cfs @ 12.04 hrs HW=286.32' TW=0.00' (Dynamic Tailwater)

↑ **2=Orifice/Grate** (Weir Controls 2.56 cfs @ 1.15 fps)

Summary for Pond DMH1: Catch Basin

Inflow Area = 11.231 ac, 45.26% Impervious, Inflow Depth = 0.08" for 1-year event
 Inflow = 0.64 cfs @ 12.21 hrs, Volume= 0.071 af
 Outflow = 0.64 cfs @ 12.21 hrs, Volume= 0.071 af, Atten= 0%, Lag= 0.0 min
 Primary = 0.64 cfs @ 12.21 hrs, Volume= 0.071 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 280.82' @ 12.21 hrs
 Flood Elev= 287.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	280.45'	24.0" Round Culvert L= 91.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 280.45' / 280.00' S= 0.0049 ' / ' Cc= 0.900 n= 0.012 Corrugated PE, smooth interior, Flow Area= 3.14 sf

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Type II 24-hr 1-year Rainfall=2.21"

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Primary OutFlow Max=0.64 cfs @ 12.21 hrs HW=280.82' TW=0.00' (Dynamic Tailwater)
1=Culvert (Barrel Controls 0.64 cfs @ 2.43 fps)

Summary for Pond DP1: Westmere Terrace

Inflow Area = 1.018 ac, 19.80% Impervious, Inflow Depth = 0.01" for 1-year event
 Inflow = 0.00 cfs @ 24.01 hrs, Volume= 0.001 af
 Primary = 0.00 cfs @ 24.01 hrs, Volume= 0.001 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Pond DP2: Design Point 2

Inflow Area = 15.191 ac, 42.19% Impervious, Inflow Depth = 0.20" for 1-year event
 Inflow = 4.23 cfs @ 12.02 hrs, Volume= 0.249 af
 Primary = 4.23 cfs @ 12.02 hrs, Volume= 0.249 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Pond INF1: Infiltration Basin

Inflow Area = 4.919 ac, 53.38% Impervious, Inflow Depth = 1.28" for 1-year event
 Inflow = 11.08 cfs @ 11.97 hrs, Volume= 0.523 af
 Outflow = 0.89 cfs @ 11.61 hrs, Volume= 0.523 af, Atten= 92%, Lag= 0.0 min
 Discarded = 0.89 cfs @ 11.61 hrs, Volume= 0.523 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 283.13' @ 12.53 hrs Surf.Area= 5,133 sf Storage= 8,838 cf

Flood Elev= 286.00' Surf.Area= 17,549 sf Storage= 44,625 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 73.8 min (892.8 - 818.9)

Volume	Invert	Avail.Storage	Storage Description
#1	280.00'	0 cf	Pretreatment Forebay (Prismatic) Listed below (Recalc) -Impervious
			11,063 cf Overall x 0.0% Voids
#2	281.00'	44,625 cf	Infiltration Basin (Prismatic) Listed below (Recalc)
		44,625 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
280.00	1,403	0	0
281.00	2,336	1,870	1,870
282.00	3,370	2,853	4,723
283.00	4,504	3,937	8,660
283.50	5,109	2,403	11,063

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Type II 24-hr 1-year Rainfall=2.21"

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Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
281.00	3,192	0	0
282.00	4,070	3,631	3,631
283.00	5,004	4,537	8,168
283.50	5,493	2,624	10,792
284.00	11,852	4,336	15,129
285.00	14,802	13,327	28,456
285.50	16,163	7,741	36,197
286.00	17,549	8,428	44,625

Device	Routing	Invert	Outlet Devices
#1	Discarded	280.00'	0.89 cfs Exfiltration at all elevations
#2	Primary	283.26'	12.0" Round Culvert L= 29.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 283.26' / 282.97' S= 0.0100 '/' Cc= 0.900 n= 0.012 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#3	Secondary	285.50'	20.0' long x 14.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.64 2.67 2.70 2.65 2.64 2.65 2.65 2.63

Discarded OutFlow Max=0.89 cfs @ 11.61 hrs HW=281.00' (Free Discharge)↑**1=Exfiltration** (Exfiltration Controls 0.89 cfs)**Primary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=280.00' TW=282.50' (Dynamic Tailwater)↑**2=Culvert** (Controls 0.00 cfs)**Secondary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=280.00' TW=282.50' (Dynamic Tailwater)↑**3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)**Summary for Pond P1: 24" HDPE Pipe**

Inflow Area = 7.129 ac, 42.08% Impervious, Inflow Depth = 0.12" for 1-year event
 Inflow = 0.64 cfs @ 12.21 hrs, Volume= 0.071 af
 Outflow = 0.64 cfs @ 12.21 hrs, Volume= 0.071 af, Atten= 0%, Lag= 0.0 min
 Primary = 0.64 cfs @ 12.21 hrs, Volume= 0.071 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 282.89' @ 12.21 hrs

Flood Elev= 288.79'

Device	Routing	Invert	Outlet Devices
#1	Primary	282.50'	24.0" Round Culvert L= 599.8' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 282.50' / 280.45' S= 0.0034 '/' Cc= 0.900 n= 0.012 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=0.64 cfs @ 12.21 hrs HW=282.89' TW=280.82' (Dynamic Tailwater)↑**1=Culvert** (Outlet Controls 0.64 cfs @ 2.25 fps)

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Type II 24-hr 1-year Rainfall=2.21"

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Summary for Pond UG1: Underground Infiltration

Inflow Area = 4.102 ac, 50.80% Impervious, Inflow Depth = 1.20" for 1-year event
 Inflow = 8.78 cfs @ 11.97 hrs, Volume= 0.412 af
 Outflow = 2.24 cfs @ 11.83 hrs, Volume= 0.412 af, Atten= 74%, Lag= 0.0 min
 Discarded = 2.24 cfs @ 11.83 hrs, Volume= 0.412 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 285.44' @ 12.11 hrs Surf.Area= 0.222 ac Storage= 0.091 af
 Flood Elev= 288.19' Surf.Area= 0.222 ac Storage= 0.484 af

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 8.2 min (831.7 - 823.6)

Volume	Invert	Avail.Storage	Storage Description
#1A	284.69'	0.196 af	63.25'W x 153.14'L x 3.50'H Field A 0.778 af Overall - 0.288 af Embedded = 0.490 af x 40.0% Voids
#2A	285.19'	0.288 af	ADS StormTech SC-740 +Cap x 273 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 273 Chambers in 13 Rows
		0.484 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	284.69'	10.000 in/hr Exfiltration over Surface area
#2	Primary	285.50'	24.0" Round Culvert L= 123.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 285.50' / 284.27' S= 0.0100 '/' Cc= 0.900 n= 0.012 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Discarded OutFlow Max=2.24 cfs @ 11.83 hrs HW=284.74' (Free Discharge)↑ **1=Exfiltration** (Exfiltration Controls 2.24 cfs)**Primary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=284.69' TW=280.45' (Dynamic Tailwater)↑ **2=Culvert** (Controls 0.00 cfs)

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Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

SubcatchmentPS1: Westmere Terrace Runoff Area=44,358 sf 19.80% Impervious Runoff Depth=0.29"
Tc=6.0 min CN=51 Runoff=0.24 cfs 0.024 af

SubcatchmentPS2: South units Runoff Area=69,858 sf 63.23% Impervious Runoff Depth=2.76"
Tc=6.0 min CN=91 Runoff=7.47 cfs 0.369 af

SubcatchmentPS3: South building & Runoff Area=214,271 sf 53.38% Impervious Runoff Depth=2.66"
Tc=6.0 min CN=90 Runoff=22.34 cfs 1.092 af

SubcatchmentPS4: North building and Runoff Area=178,692 sf 50.80% Impervious Runoff Depth=2.57"
Tc=6.0 min CN=89 Runoff=18.12 cfs 0.879 af

SubcatchmentPS5: Left Units Runoff Area=55,948 sf 0.00% Impervious Runoff Depth=0.15"
Tc=6.0 min CN=46 Runoff=0.03 cfs 0.016 af

SubcatchmentPS6: Rapp Road Runoff Area=46,660 sf 29.07% Impervious Runoff Depth=2.22"
Tc=6.0 min CN=85 Runoff=4.18 cfs 0.198 af

SubcatchmentPS7: Behind Upper Runoff Area=96,271 sf 16.90% Impervious Runoff Depth=1.27"
Flow Length=691' Tc=23.6 min CN=72 Runoff=2.70 cfs 0.235 af

Pond BIO1: Peak Elev=286.44' Storage=3,479 cf Inflow=7.47 cfs 0.369 af
Discarded=0.03 cfs 0.094 af Primary=6.87 cfs 0.275 af Outflow=6.90 cfs 0.369 af

Pond DMH1: Catch Basin Peak Elev=281.93' Inflow=7.75 cfs 0.610 af
24.0" Round Culvert n=0.012 L=91.0' S=0.0049 '/' Outflow=7.75 cfs 0.610 af

Pond DP1: Westmere Terrace Inflow=0.24 cfs 0.024 af
Primary=0.24 cfs 0.024 af

Pond DP2: Design Point 2 Inflow=15.32 cfs 1.098 af
Primary=15.32 cfs 1.098 af

Pond INF1: Infiltration Basin Peak Elev=284.29' Storage=18,628 cf Inflow=22.34 cfs 1.092 af
Discarded=0.89 cfs 0.829 af Primary=2.16 cfs 0.263 af Secondary=0.00 cfs 0.000 af Outflow=3.05 cfs 1.092 af

Pond P1: 24" HDPE Pipe Peak Elev=283.69' Inflow=4.87 cfs 0.498 af
24.0" Round Culvert n=0.012 L=599.8' S=0.0034 '/' Outflow=4.87 cfs 0.498 af

Pond UG1: Underground Infiltration Peak Elev=286.35' Storage=0.254 af Inflow=18.12 cfs 0.879 af
Discarded=2.24 cfs 0.767 af Primary=3.14 cfs 0.112 af Outflow=5.39 cfs 0.879 af

Total Runoff Area = 16.209 ac Runoff Volume = 2.812 af Average Runoff Depth = 2.08"
59.22% Pervious = 9.598 ac 40.78% Impervious = 6.611 ac

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Type II 24-hr 10-year Rainfall=3.73"

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Summary for Subcatchment PS1: Westmere Terrace

Runoff = 0.24 cfs @ 12.02 hrs, Volume= 0.024 af, Depth= 0.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-year Rainfall=3.73"

Area (sf)	CN	Description
8,785	98	Paved parking, HSG A
35,573	39	>75% Grass cover, Good, HSG A
44,358	51	Weighted Average
35,573	39	80.20% Pervious Area
8,785	98	19.80% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Subcatchment PS2: South units

Runoff = 7.47 cfs @ 11.97 hrs, Volume= 0.369 af, Depth= 2.76"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-year Rainfall=3.73"

Area (sf)	CN	Description
29,969	98	Paved parking, HSG D
25,688	80	>75% Grass cover, Good, HSG D
14,201	98	Roofs, HSG D
69,858	91	Weighted Average
25,688	80	36.77% Pervious Area
44,170	98	63.23% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Subcatchment PS3: South building & Upper

Runoff = 22.34 cfs @ 11.97 hrs, Volume= 1.092 af, Depth= 2.66"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-year Rainfall=3.73"

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Type II 24-hr 10-year Rainfall=3.73"

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Area (sf)	CN	Description
52,054	98	Paved parking, HSG D
99,883	80	>75% Grass cover, Good, HSG D
62,334	98	Roofs, HSG D
214,271	90	Weighted Average
99,883	80	46.62% Pervious Area
114,388	98	53.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Subcatchment PS4: North building and Community

Runoff = 18.12 cfs @ 11.97 hrs, Volume= 0.879 af, Depth= 2.57"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Type II 24-hr 10-year Rainfall=3.73"

Area (sf)	CN	Description
58,806	98	Paved parking, HSG D
87,913	80	>75% Grass cover, Good, HSG D
31,973	98	Roofs, HSG D
178,692	89	Weighted Average
87,913	80	49.20% Pervious Area
90,779	98	50.80% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Subcatchment PS5: Left Units

Runoff = 0.03 cfs @ 12.37 hrs, Volume= 0.016 af, Depth= 0.15"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Type II 24-hr 10-year Rainfall=3.73"

Area (sf)	CN	Description
10,211	80	>75% Grass cover, Good, HSG D
45,737	39	>75% Grass cover, Good, HSG A
55,948	46	Weighted Average
55,948	46	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

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Type II 24-hr 10-year Rainfall=3.73"

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Summary for Subcatchment PS6: Rapp Road

Runoff = 4.18 cfs @ 11.97 hrs, Volume= 0.198 af, Depth= 2.22"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-year Rainfall=3.73"

Area (sf)	CN	Description
33,095	80	>75% Grass cover, Good, HSG D
13,565	98	Paved roads w/curbs & sewers, HSG D
46,660	85	Weighted Average
33,095	80	70.93% Pervious Area
13,565	98	29.07% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Subcatchment PS7: Behind Upper

Runoff = 2.70 cfs @ 12.19 hrs, Volume= 0.235 af, Depth= 1.27"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-year Rainfall=3.73"

Area (sf)	CN	Description
31,671	43	Woods/grass comb., Fair, HSG A
48,327	82	Woods/grass comb., Fair, HSG D
16,273	98	Paved parking, HSG D
96,271	72	Weighted Average
79,998	67	83.10% Pervious Area
16,273	98	16.90% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.5	12	0.0833	0.08		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.59"
0.8	7	0.4432	0.14		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.59"
8.1	81	0.1975	0.17		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.59"
0.4	40	0.0992	1.57		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
11.8	551	0.0123	0.78		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
23.6	691	Total			

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Summary for Pond BIO1:

Inflow Area = 1.604 ac, 63.23% Impervious, Inflow Depth = 2.76" for 10-year event
 Inflow = 7.47 cfs @ 11.97 hrs, Volume= 0.369 af
 Outflow = 6.90 cfs @ 12.00 hrs, Volume= 0.369 af, Atten= 8%, Lag= 1.8 min
 Discarded = 0.03 cfs @ 12.00 hrs, Volume= 0.094 af
 Primary = 6.87 cfs @ 12.00 hrs, Volume= 0.275 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 286.44' @ 12.00 hrs Surf.Area= 5,845 sf Storage= 3,479 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 194.3 min (988.0 - 793.7)

Volume	Invert	Avail.Storage	Storage Description
#1	285.75'	3,829 cf	Ponding (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
285.75	3,581	0	0
286.00	5,050	1,079	1,079
286.50	5,952	2,751	3,829

Device	Routing	Invert	Outlet Devices
#1	Discarded	285.75'	0.250 in/hr Exfiltration over Surface area
#2	Primary	286.20'	17.0" Horiz. Orifice/Grate X 4.00 C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.03 cfs @ 12.00 hrs HW=286.44' (Free Discharge)

↑ **1=Exfiltration** (Exfiltration Controls 0.03 cfs)

Primary OutFlow Max=6.87 cfs @ 12.00 hrs HW=286.44' TW=0.00' (Dynamic Tailwater)

↑ **2=Orifice/Grate** (Weir Controls 6.87 cfs @ 1.60 fps)

Summary for Pond DMH1: Catch Basin

Inflow Area = 11.231 ac, 45.26% Impervious, Inflow Depth = 0.65" for 10-year event
 Inflow = 7.75 cfs @ 12.14 hrs, Volume= 0.610 af
 Outflow = 7.75 cfs @ 12.14 hrs, Volume= 0.610 af, Atten= 0%, Lag= 0.0 min
 Primary = 7.75 cfs @ 12.14 hrs, Volume= 0.610 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 281.93' @ 12.14 hrs
 Flood Elev= 287.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	280.45'	24.0" Round Culvert L= 91.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 280.45' / 280.00' S= 0.0049 ' / ' Cc= 0.900 n= 0.012 Corrugated PE, smooth interior, Flow Area= 3.14 sf

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Primary OutFlow Max=7.75 cfs @ 12.14 hrs HW=281.92' TW=0.00' (Dynamic Tailwater)

1=Culvert (Barrel Controls 7.75 cfs @ 4.35 fps)

Summary for Pond DP1: Westmere Terrace

Inflow Area = 1.018 ac, 19.80% Impervious, Inflow Depth = 0.29" for 10-year event
 Inflow = 0.24 cfs @ 12.02 hrs, Volume= 0.024 af
 Primary = 0.24 cfs @ 12.02 hrs, Volume= 0.024 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Pond DP2: Design Point 2

Inflow Area = 15.191 ac, 42.19% Impervious, Inflow Depth = 0.87" for 10-year event
 Inflow = 15.32 cfs @ 12.02 hrs, Volume= 1.098 af
 Primary = 15.32 cfs @ 12.02 hrs, Volume= 1.098 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Pond INF1: Infiltration Basin

Inflow Area = 4.919 ac, 53.38% Impervious, Inflow Depth = 2.66" for 10-year event
 Inflow = 22.34 cfs @ 11.97 hrs, Volume= 1.092 af
 Outflow = 3.05 cfs @ 12.21 hrs, Volume= 1.092 af, Atten= 86%, Lag= 14.5 min
 Discarded = 0.89 cfs @ 11.16 hrs, Volume= 0.829 af
 Primary = 2.16 cfs @ 12.21 hrs, Volume= 0.263 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 284.29' @ 12.21 hrs Surf.Area= 12,693 sf Storage= 18,628 cf

Flood Elev= 286.00' Surf.Area= 17,549 sf Storage= 44,625 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 89.7 min (887.6 - 798.0)

Volume	Invert	Avail.Storage	Storage Description
#1	280.00'	0 cf	Pretreatment Forebay (Prismatic) Listed below (Recalc) -Impervious
			11,063 cf Overall x 0.0% Voids
#2	281.00'	44,625 cf	Infiltration Basin (Prismatic) Listed below (Recalc)
		44,625 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
280.00	1,403	0	0
281.00	2,336	1,870	1,870
282.00	3,370	2,853	4,723
283.00	4,504	3,937	8,660
283.50	5,109	2,403	11,063

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Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
281.00	3,192	0	0
282.00	4,070	3,631	3,631
283.00	5,004	4,537	8,168
283.50	5,493	2,624	10,792
284.00	11,852	4,336	15,129
285.00	14,802	13,327	28,456
285.50	16,163	7,741	36,197
286.00	17,549	8,428	44,625

Device	Routing	Invert	Outlet Devices
#1	Discarded	280.00'	0.89 cfs Exfiltration at all elevations
#2	Primary	283.26'	12.0" Round Culvert L= 29.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 283.26' / 282.97' S= 0.0100 '/' Cc= 0.900 n= 0.012 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#3	Secondary	285.50'	20.0' long x 14.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.64 2.67 2.70 2.65 2.64 2.65 2.65 2.63

Discarded OutFlow Max=0.89 cfs @ 11.16 hrs HW=281.00' (Free Discharge)↑ **1=Exfiltration** (Exfiltration Controls 0.89 cfs)**Primary OutFlow** Max=2.16 cfs @ 12.21 hrs HW=284.29' TW=283.68' (Dynamic Tailwater)↑ **2=Culvert** (Inlet Controls 2.16 cfs @ 2.75 fps)**Secondary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=280.00' TW=282.50' (Dynamic Tailwater)↑ **3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)**Summary for Pond P1: 24" HDPE Pipe**

Inflow Area = 7.129 ac, 42.08% Impervious, Inflow Depth = 0.84" for 10-year event
 Inflow = 4.87 cfs @ 12.19 hrs, Volume= 0.498 af
 Outflow = 4.87 cfs @ 12.19 hrs, Volume= 0.498 af, Atten= 0%, Lag= 0.0 min
 Primary = 4.87 cfs @ 12.19 hrs, Volume= 0.498 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 283.69' @ 12.18 hrs

Flood Elev= 288.79'

Device	Routing	Invert	Outlet Devices
#1	Primary	282.50'	24.0" Round Culvert L= 599.8' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 282.50' / 280.45' S= 0.0034 '/' Cc= 0.900 n= 0.012 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=4.87 cfs @ 12.19 hrs HW=283.69' TW=281.90' (Dynamic Tailwater)↑ **1=Culvert** (Outlet Controls 4.87 cfs @ 3.59 fps)

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Summary for Pond UG1: Underground Infiltration

Inflow Area = 4.102 ac, 50.80% Impervious, Inflow Depth = 2.57" for 10-year event
 Inflow = 18.12 cfs @ 11.97 hrs, Volume= 0.879 af
 Outflow = 5.39 cfs @ 12.10 hrs, Volume= 0.879 af, Atten= 70%, Lag= 7.6 min
 Discarded = 2.24 cfs @ 11.69 hrs, Volume= 0.767 af
 Primary = 3.14 cfs @ 12.10 hrs, Volume= 0.112 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 286.35' @ 12.10 hrs Surf.Area= 0.222 ac Storage= 0.254 af
 Flood Elev= 288.19' Surf.Area= 0.222 ac Storage= 0.484 af

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 18.9 min (820.9 - 802.0)

Volume	Invert	Avail.Storage	Storage Description
#1A	284.69'	0.196 af	63.25'W x 153.14'L x 3.50'H Field A 0.778 af Overall - 0.288 af Embedded = 0.490 af x 40.0% Voids
#2A	285.19'	0.288 af	ADS StormTech SC-740 +Cap x 273 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 273 Chambers in 13 Rows
		0.484 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	284.69'	10.000 in/hr Exfiltration over Surface area
#2	Primary	285.50'	24.0" Round Culvert L= 123.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 285.50' / 284.27' S= 0.0100 '/' Cc= 0.900 n= 0.012 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Discarded OutFlow Max=2.24 cfs @ 11.69 hrs HW=284.73' (Free Discharge)↑ **1=Exfiltration** (Exfiltration Controls 2.24 cfs)**Primary OutFlow** Max=3.14 cfs @ 12.10 hrs HW=286.35' TW=281.90' (Dynamic Tailwater)↑ **2=Culvert** (Inlet Controls 3.14 cfs @ 2.48 fps)

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Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

SubcatchmentPS1: Westmere Terrace	Runoff Area=44,358 sf 19.80% Impervious Runoff Depth=1.38" Tc=6.0 min CN=51 Runoff=2.35 cfs 0.117 af
SubcatchmentPS2: South units	Runoff Area=69,858 sf 63.23% Impervious Runoff Depth=5.27" Tc=6.0 min CN=91 Runoff=13.68 cfs 0.704 af
SubcatchmentPS3: South building &	Runoff Area=214,271 sf 53.38% Impervious Runoff Depth=5.16" Tc=6.0 min CN=90 Runoff=41.44 cfs 2.114 af
SubcatchmentPS4: North building and	Runoff Area=178,692 sf 50.80% Impervious Runoff Depth=5.05" Tc=6.0 min CN=89 Runoff=34.10 cfs 1.725 af
SubcatchmentPS5: Left Units	Runoff Area=55,948 sf 0.00% Impervious Runoff Depth=1.00" Tc=6.0 min CN=46 Runoff=1.95 cfs 0.107 af
SubcatchmentPS6: Rapp Road	Runoff Area=46,660 sf 29.07% Impervious Runoff Depth=4.61" Tc=6.0 min CN=85 Runoff=8.37 cfs 0.411 af
SubcatchmentPS7: Behind Upper	Runoff Area=96,271 sf 16.90% Impervious Runoff Depth=3.26" Flow Length=691' Tc=23.6 min CN=72 Runoff=7.24 cfs 0.600 af
Pond BIO1:	Peak Elev=286.61' Storage=3,829 cf Inflow=13.68 cfs 0.704 af Discarded=0.03 cfs 0.100 af Primary=15.43 cfs 0.604 af Outflow=15.46 cfs 0.704 af
Pond DMH1: Catch Basin	Peak Elev=286.65' Inflow=27.27 cfs 2.071 af 24.0" Round Culvert n=0.012 L=91.0' S=0.0049 ' /' Outflow=27.27 cfs 2.071 af
Pond DP1: Westmere Terrace	Inflow=2.35 cfs 0.117 af Primary=2.35 cfs 0.117 af
Pond DP2: Design Point 2	Inflow=42.77 cfs 3.194 af Primary=42.77 cfs 3.194 af
Pond INF1: Infiltration Basin	Peak Elev=285.76' Storage=40,488 cf Inflow=41.44 cfs 2.114 af Discarded=0.89 cfs 1.167 af Primary=4.01 cfs 0.837 af Secondary=6.85 cfs 0.111 af Outflow=11.75 cfs 2.114 af
Pond P1: 24" HDPE Pipe	Peak Elev=287.39' Inflow=17.10 cfs 1.547 af 24.0" Round Culvert n=0.012 L=599.8' S=0.0034 ' /' Outflow=17.10 cfs 1.547 af
Pond UG1: Underground Infiltration	Peak Elev=287.95' Storage=0.463 af Inflow=34.10 cfs 1.725 af Discarded=2.24 cfs 1.202 af Primary=14.39 cfs 0.523 af Outflow=16.63 cfs 1.725 af
Total Runoff Area = 16.209 ac Runoff Volume = 5.779 af Average Runoff Depth = 4.28"	
59.22% Pervious = 9.598 ac 40.78% Impervious = 6.611 ac	

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Summary for Subcatchment PS1: Westmere Terrace

Runoff = 2.35 cfs @ 11.99 hrs, Volume= 0.117 af, Depth= 1.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-year Rainfall=6.32"

Area (sf)	CN	Description
8,785	98	Paved parking, HSG A
35,573	39	>75% Grass cover, Good, HSG A
44,358	51	Weighted Average
35,573	39	80.20% Pervious Area
8,785	98	19.80% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Subcatchment PS2: South units

Runoff = 13.68 cfs @ 11.97 hrs, Volume= 0.704 af, Depth= 5.27"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-year Rainfall=6.32"

Area (sf)	CN	Description
29,969	98	Paved parking, HSG D
25,688	80	>75% Grass cover, Good, HSG D
14,201	98	Roofs, HSG D
69,858	91	Weighted Average
25,688	80	36.77% Pervious Area
44,170	98	63.23% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Subcatchment PS3: South building & Upper

Runoff = 41.44 cfs @ 11.97 hrs, Volume= 2.114 af, Depth= 5.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-year Rainfall=6.32"

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Area (sf)	CN	Description
52,054	98	Paved parking, HSG D
99,883	80	>75% Grass cover, Good, HSG D
62,334	98	Roofs, HSG D
214,271	90	Weighted Average
99,883	80	46.62% Pervious Area
114,388	98	53.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Subcatchment PS4: North building and Community

Runoff = 34.10 cfs @ 11.97 hrs, Volume= 1.725 af, Depth= 5.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-year Rainfall=6.32"

Area (sf)	CN	Description
58,806	98	Paved parking, HSG D
87,913	80	>75% Grass cover, Good, HSG D
31,973	98	Roofs, HSG D
178,692	89	Weighted Average
87,913	80	49.20% Pervious Area
90,779	98	50.80% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Subcatchment PS5: Left Units

Runoff = 1.95 cfs @ 11.99 hrs, Volume= 0.107 af, Depth= 1.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-year Rainfall=6.32"

Area (sf)	CN	Description
10,211	80	>75% Grass cover, Good, HSG D
45,737	39	>75% Grass cover, Good, HSG A
55,948	46	Weighted Average
55,948	46	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

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Summary for Subcatchment PS6: Rapp Road

Runoff = 8.37 cfs @ 11.97 hrs, Volume= 0.411 af, Depth= 4.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Type II 24-hr 100-year Rainfall=6.32"

Area (sf)	CN	Description
33,095	80	>75% Grass cover, Good, HSG D
13,565	98	Paved roads w/curbs & sewers, HSG D
46,660	85	Weighted Average
33,095	80	70.93% Pervious Area
13,565	98	29.07% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Subcatchment PS7: Behind Upper

Runoff = 7.24 cfs @ 12.17 hrs, Volume= 0.600 af, Depth= 3.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Type II 24-hr 100-year Rainfall=6.32"

Area (sf)	CN	Description
31,671	43	Woods/grass comb., Fair, HSG A
48,327	82	Woods/grass comb., Fair, HSG D
16,273	98	Paved parking, HSG D
96,271	72	Weighted Average
79,998	67	83.10% Pervious Area
16,273	98	16.90% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.5	12	0.0833	0.08		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.59"
0.8	7	0.4432	0.14		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.59"
8.1	81	0.1975	0.17		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.59"
0.4	40	0.0992	1.57		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
11.8	551	0.0123	0.78		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
23.6	691	Total			

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Type II 24-hr 100-year Rainfall=6.32"

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Summary for Pond BIO1:

Inflow Area = 1.604 ac, 63.23% Impervious, Inflow Depth = 5.27" for 100-year event
 Inflow = 13.68 cfs @ 11.97 hrs, Volume= 0.704 af
 Outflow = 15.46 cfs @ 11.97 hrs, Volume= 0.704 af, Atten= 0%, Lag= 0.1 min
 Discarded = 0.03 cfs @ 11.92 hrs, Volume= 0.100 af
 Primary = 15.43 cfs @ 11.97 hrs, Volume= 0.604 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 286.61' @ 11.97 hrs Surf.Area= 5,952 sf Storage= 3,829 cf

Plug-Flow detention time= 113.8 min calculated for 0.704 af (100% of inflow)
 Center-of-Mass det. time= 114.0 min (890.0 - 776.0)

Volume	Invert	Avail.Storage	Storage Description
#1	285.75'	3,829 cf	Ponding (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
285.75	3,581	0	0
286.00	5,050	1,079	1,079
286.50	5,952	2,751	3,829

Device	Routing	Invert	Outlet Devices
#1	Discarded	285.75'	0.250 in/hr Exfiltration over Surface area
#2	Primary	286.20'	17.0" Horiz. Orifice/Grate X 4.00 C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.03 cfs @ 11.92 hrs HW=286.51' (Free Discharge)

↑ **1=Exfiltration** (Exfiltration Controls 0.03 cfs)

Primary OutFlow Max=15.40 cfs @ 11.97 hrs HW=286.61' TW=0.00' (Dynamic Tailwater)

↑ **2=Orifice/Grate** (Weir Controls 15.40 cfs @ 2.10 fps)

Summary for Pond DMH1: Catch Basin

Inflow Area = 11.231 ac, 45.26% Impervious, Inflow Depth = 2.21" for 100-year event
 Inflow = 27.27 cfs @ 12.19 hrs, Volume= 2.071 af
 Outflow = 27.27 cfs @ 12.19 hrs, Volume= 2.071 af, Atten= 0%, Lag= 0.0 min
 Primary = 27.27 cfs @ 12.19 hrs, Volume= 2.071 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 286.65' @ 12.19 hrs
 Flood Elev= 287.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	280.45'	24.0" Round Culvert L= 91.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 280.45' / 280.00' S= 0.0049 ' / ' Cc= 0.900 n= 0.012 Corrugated PE, smooth interior, Flow Area= 3.14 sf

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Type II 24-hr 100-year Rainfall=6.32"

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Primary OutFlow Max=26.62 cfs @ 12.19 hrs HW=286.42' TW=0.00' (Dynamic Tailwater)

1=Culvert (Inlet Controls 26.62 cfs @ 8.47 fps)

Summary for Pond DP1: Westmere Terrace

Inflow Area = 1.018 ac, 19.80% Impervious, Inflow Depth = 1.38" for 100-year event
 Inflow = 2.35 cfs @ 11.99 hrs, Volume= 0.117 af
 Primary = 2.35 cfs @ 11.99 hrs, Volume= 0.117 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Pond DP2: Design Point 2

Inflow Area = 15.191 ac, 42.19% Impervious, Inflow Depth = 2.52" for 100-year event
 Inflow = 42.77 cfs @ 11.99 hrs, Volume= 3.194 af
 Primary = 42.77 cfs @ 11.99 hrs, Volume= 3.194 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Pond INF1: Infiltration Basin

Inflow Area = 4.919 ac, 53.38% Impervious, Inflow Depth = 5.16" for 100-year event
 Inflow = 41.44 cfs @ 11.97 hrs, Volume= 2.114 af
 Outflow = 11.75 cfs @ 12.31 hrs, Volume= 2.114 af, Atten= 72%, Lag= 20.5 min
 Discarded = 0.89 cfs @ 10.11 hrs, Volume= 1.167 af
 Primary = 4.01 cfs @ 12.31 hrs, Volume= 0.837 af
 Secondary = 6.85 cfs @ 12.31 hrs, Volume= 0.111 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 285.76' @ 12.30 hrs Surf.Area= 16,883 sf Storage= 40,488 cf
 Flood Elev= 286.00' Surf.Area= 17,549 sf Storage= 44,625 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 99.9 min (879.6 - 779.7)

Volume	Invert	Avail.Storage	Storage Description
#1	280.00'	0 cf	Pretreatment Forebay (Prismatic) Listed below (Recalc) -Impervious
			11,063 cf Overall x 0.0% Voids
#2	281.00'	44,625 cf	Infiltration Basin (Prismatic) Listed below (Recalc)
		44,625 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
280.00	1,403	0	0
281.00	2,336	1,870	1,870
282.00	3,370	2,853	4,723
283.00	4,504	3,937	8,660
283.50	5,109	2,403	11,063

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Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
281.00	3,192	0	0
282.00	4,070	3,631	3,631
283.00	5,004	4,537	8,168
283.50	5,493	2,624	10,792
284.00	11,852	4,336	15,129
285.00	14,802	13,327	28,456
285.50	16,163	7,741	36,197
286.00	17,549	8,428	44,625

Device	Routing	Invert	Outlet Devices
#1	Discarded	280.00'	0.89 cfs Exfiltration at all elevations
#2	Primary	283.26'	12.0" Round Culvert L= 29.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 283.26' / 282.97' S= 0.0100 '/' Cc= 0.900 n= 0.012 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#3	Secondary	285.50'	20.0' long x 14.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.64 2.67 2.70 2.65 2.64 2.65 2.65 2.63

Discarded OutFlow Max=0.89 cfs @ 10.11 hrs HW=281.00' (Free Discharge)↑ **1=Exfiltration** (Exfiltration Controls 0.89 cfs)**Primary OutFlow** Max=0.00 cfs @ 12.31 hrs HW=285.76' TW=286.06' (Dynamic Tailwater)↑ **2=Culvert** (Controls 0.00 cfs)**Secondary OutFlow** Max=0.00 cfs @ 12.31 hrs HW=285.76' TW=286.06' (Dynamic Tailwater)↑ **3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)**Summary for Pond P1: 24" HDPE Pipe**

Inflow Area = 7.129 ac, 42.08% Impervious, Inflow Depth = 2.60" for 100-year event
 Inflow = 17.10 cfs @ 12.22 hrs, Volume= 1.547 af
 Outflow = 17.10 cfs @ 12.22 hrs, Volume= 1.547 af, Atten= 0%, Lag= 0.0 min
 Primary = 17.10 cfs @ 12.22 hrs, Volume= 1.547 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 287.39' @ 12.19 hrs

Flood Elev= 288.79'

Device	Routing	Invert	Outlet Devices
#1	Primary	282.50'	24.0" Round Culvert L= 599.8' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 282.50' / 280.45' S= 0.0034 '/' Cc= 0.900 n= 0.012 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=8.08 cfs @ 12.22 hrs HW=287.23' TW=286.38' (Dynamic Tailwater)↑ **1=Culvert** (Outlet Controls 8.08 cfs @ 2.57 fps)

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Type II 24-hr 100-year Rainfall=6.32"

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Summary for Pond UG1: Underground Infiltration

Inflow Area = 4.102 ac, 50.80% Impervious, Inflow Depth = 5.05" for 100-year event
 Inflow = 34.10 cfs @ 11.97 hrs, Volume= 1.725 af
 Outflow = 16.63 cfs @ 12.06 hrs, Volume= 1.725 af, Atten= 51%, Lag= 5.5 min
 Discarded = 2.24 cfs @ 11.60 hrs, Volume= 1.202 af
 Primary = 14.39 cfs @ 12.06 hrs, Volume= 0.523 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 287.95' @ 12.06 hrs Surf.Area= 0.222 ac Storage= 0.463 af
 Flood Elev= 288.19' Surf.Area= 0.222 ac Storage= 0.484 af

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 17.7 min (800.9 - 783.2)

Volume	Invert	Avail.Storage	Storage Description
#1A	284.69'	0.196 af	63.25'W x 153.14'L x 3.50'H Field A 0.778 af Overall - 0.288 af Embedded = 0.490 af x 40.0% Voids
#2A	285.19'	0.288 af	ADS StormTech SC-740 +Cap x 273 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 273 Chambers in 13 Rows
		0.484 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	284.69'	10.000 in/hr Exfiltration over Surface area
#2	Primary	285.50'	24.0" Round Culvert L= 123.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 285.50' / 284.27' S= 0.0100 '/' Cc= 0.900 n= 0.012 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Discarded OutFlow Max=2.24 cfs @ 11.60 hrs HW=284.73' (Free Discharge)↑ **1=Exfiltration** (Exfiltration Controls 2.24 cfs)**Primary OutFlow** Max=14.39 cfs @ 12.06 hrs HW=287.95' TW=284.85' (Dynamic Tailwater)↑ **2=Culvert** (Inlet Controls 14.39 cfs @ 4.58 fps)

Appendix K:
Project Evaluation and
Design Calculations

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Table A - Page 1

Stormwater Pollution Prevention Plan
The Apex at Crossgates

Appendix K - Table A
Step 1 - Evaluation of Green Infrastructure Planning Measures

Group	Practice	Description	Applicable	Project Specific Evaluation
Preservation of Natural Resources	Preservation of Undisturbed Areas	Delineate and place into permanent conservation undisturbed forests, native vegetated areas, riparian corridors, wetlands, and natural terrain.	Yes	The proposed site layout has been designed to limit land disturbance to the greatest extent practical. The project proposes no disturbance in the existing 200' DEC forever wild buffer and proposes placing a portion of the western hill into forever wild. No RRV credit is being taken for the new preservation area.
	Preservation of Buffers	Define, delineate and preserve naturally vegetated buffers along perennial streams, rivers, shorelines and wetlands.	Yes	The proposed site layout has been designed to limit land disturbance to the greatest extent practical. The project proposes no disturbance in the existing 200' DEC forever wild buffer and proposes placing a portion of the western hill into forever wild. No RRV credit is being taken for the new preservation area.
	Reduction of Clearing and Grading	Limit clearing and grading to the minimum amount needed for roads, driveways, foundations, utilities and stormwater management facilities.	Yes	Clearing and grading will be limited to the area of disturbance and will be minimized to the greatest extent practical. The limits of all proposed clearing will be demarcated in the field with orange construction fencing, prior to construction, to prevent unnecessary removal of trees.
	Locating Development in Less Sensitive Areas	Avoid sensitive resource areas such as floodplains, steep slopes, erodible soils, wetlands, mature forests and critical habitats by locating development to fit the terrain in areas that will create the least impact.	Yes	The site layout has been designed to avoid sensitive resource areas to the greatest extent practical. The proposed site layout has been designed to limit land disturbance to the greatest extent practical. The project proposes no disturbance in the existing 200' DEC forever wild buffer and proposes placing a portion of the western hill into forever wild. No RRV credit is being taken for the new preservation area.
	Open Space Design	Use clustering, conservation design or open space design to reduce impervious cover, preserve more open space and protect water resources.	No	The site layout has been designed to maximize open space. Impervious surfaces have been minimized to the greatest extent practical.
	Soil Restoration	Restore the original properties and porosity of the soil by deep till and amendment with compost to reduce the generation of runoff and enhance the runoff reduction performance of practices such as downslope disconnections, grass channels, filter strips, and tree clusters.	Yes	Full soil restoration is proposed for all areas of disturbance that will not become hardscape. All areas will be stabilized with seed & mulch, and landscaped areas will be provided.
	Roadway Reduction	Minimize roadway widths and lengths to reduce site impervious area	No	Roadway widths and lengths have been minimized to the greatest extent practical.

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Table A - Page 2

Stormwater Pollution Prevention Plan
The Apex at Crossgates

Reduction of Impervious Cover				
Sidewalk Reduction	Minimize sidewalk lengths and widths to reduce site impervious area	No	Sidewalk widths and lengths have been minimized to the greatest extent practical.	
Driveway Reduction	Minimize driveway lengths and widths to reduce site impervious area	N/A	No new driveways are proposed as part of this project.	
Cul-de-sac Reduction	Minimize the number of cul-de-sacs and incorporate landscaped areas to reduce their impervious cover.	N/A	The Westmere Terrace cul-de-sac has been minimized to the greatest extent practical.	
Building Footprint Reduction	Reduce the impervious footprint of residences and commercial buildings by using alternate or taller buildings while maintaining the same floor to area ratio.	No	All new building area has been allocated to efficiently implement the intended use.	
Parking Reduction	Reduce imperviousness on parking lots by eliminating unneeded spaces, providing compact car spaces and efficient parking lanes, minimizing stall dimensions, using porous pavement surfaces in overflow parking areas, and using multi-storied parking decks where appropriate.	No	On-site parking has been allocated to provide a sufficient number of spaces for the intended use.	

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Appendix K - Table C																							
Practice Specific Sizing Calculation Worksheet																							
BIORETENTION FILTER NO. 1 (BIO1)																							
Determine Required Water Quality Volume																							
WQv = (P/12) * Rv * A where: WQv = Water Quality Volume (acre-feet) P = 1-year 24-hour design storm (inches) Rv = 0.05 + 0.009 (I) I = Impervious Cover (%) within the drainage area contributing to the SWM practice A = Drainage area (square feet) contributing to the SWM practice Required WQv = 3,960 CF *Value taken from Appendix K - Table B																							
Calculate Required Filter Bed Area																							
Af = (WQv) * (df) / [(k) * (hf + df) * (tf)] where: Af = Surface area of filter bed (SF) WQv = Required Water Quality Volume (CF) df = Filter bed depth (ft) k = Coefficient of permeability of filter media (ft/day) hf = Average height of water above filter bed (ft) tf = Design filter bed drain time (days) <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>SMP ID</th> <th>WQv (cubic feet)</th> <th>df (feet)</th> <th>k (ft/day)</th> <th>hf (feet)</th> <th>tf (days)</th> <th>Minimum Af (sq-ft)</th> <th>Provided Af (sq-ft)</th> </tr> </thead> <tbody> <tr> <td>BIO1</td> <td>3960.0</td> <td>2.5</td> <td>0.5</td> <td>0.5</td> <td>2.0</td> <td>3,300</td> <td>3,581</td> </tr> </tbody> </table>								SMP ID	WQv (cubic feet)	df (feet)	k (ft/day)	hf (feet)	tf (days)	Minimum Af (sq-ft)	Provided Af (sq-ft)	BIO1	3960.0	2.5	0.5	0.5	2.0	3,300	3,581
SMP ID	WQv (cubic feet)	df (feet)	k (ft/day)	hf (feet)	tf (days)	Minimum Af (sq-ft)	Provided Af (sq-ft)																
BIO1	3960.0	2.5	0.5	0.5	2.0	3,300	3,581																
Calculate Provided Water Quality Volume																							
Provided WQv = Vf + Vs + Vp where: Vf = Volume of Filter (CF) = Af * df * n-filter Vs = Volume of Stone Drainage Course (CF) = Af * ds * n-stone Vp = Volume of Ponding (CF) Vf = 2686 CF Vs = 1432 CF Vp = 0 CF <i>Not accounted for in volume calculation</i> df = 2.5 ft n-filter = 0.30 ds = 1.00 ft n-stone = 0.40 Provided WQv = 4,118 CF																							
Calculate Provided Runoff Reduction Volume																							
Using Underdrains? No RRv Available = 3,960 CF RRv Applied = 3,960 CF																							

Appendix L:
Boring Logs

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TEST BORING LOG

Page 1 of 50

THE Chazen COMPANIES		547 River Street Troy, New York 12180 Phn: (518) 273-0055 Fax: (518) 273-8391		PROJECT: Rapp Road Residential Development LOCATION: Rapp Road Guilderland, NY CLIENT: Pyramid Management Group, LLC PROJECT NO.: 317AI.00		Test Boring No.: SB1 Total Depth: 27 ft.	
Contractor: Aztech Environmental Drill Rig: 3230DT Driller: Derek Fennell Inspector: Dean Anderson				Start Date: 23-Jan-2018 Finish Date: 23-Jan-2018 El. Datum: NAVD-88 G.S. Elevation: 292.5		Northing: See Figure Easting: Latitude: - Longitude: -	
Borehole Dia.: 3.5 in. Water Depth: 21 ft. Bedrock Depth: n/a ft. Sample Hammer: Automatic							

Depth (Ft)	Elevation (Ft)	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum Descriptions:	Field Notes, Comments:
1	291.5	SS-1	1	14		SP	Poorly Graded Sand (SP): Mostly fine Sand, orange, moist (Glaciofluvial Deposits)	4" Topsoil 3" Frost
2	290.5		2					
3	289.5		2					
4	288.5							
5	287.5	SS-2	4	14		SP	Poorly Graded Sand (SP): Mostly fine Sand, orange, moist	
6	286.5		4					
7	285.5		5					
8	284.5							
9	283.5							
10	282.5	SS-3	5	14		SP	Poorly Graded Sand (SP): Mostly fine Sand, light brown, moist	
11	281.5		7					
12	280.5		7					
13	279.5							
14	278.5							
15	277.5	SS-4	1	12		SP	Poorly Graded Sand (SP): Mostly fine Sand, brown, moist	
16	276.5		3					
17	275.5		4					
18	274.5							
19	273.5							
20	272.5	SS-5	2	16		SP	Poorly Graded Sand (SP): Mostly fine Sand, brown, saturated	

METHODS: HA- Hollow Stem Auger, RW- Rotary Wash, SSA- Solid Stem Auger, DC-Diamond Core, DP-Direct Push SAMPLE TYPES: SS-Split Spoon, RC-Bedrock Core, GS-Geoprobe Sleeve, ST-Shelby Tube STANDARD 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted. NOTES: 2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet. 3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.		DRILLING INFORMATION Method: DP 0 to 25.0 Method:																
ADDITIONAL NOTES:		<table border="1"> <thead> <tr> <th></th> <th>Sample</th> <th>Core</th> </tr> </thead> <tbody> <tr> <td>Type</td> <td>SS</td> <td></td> </tr> <tr> <td>Int Diam.</td> <td>3.25</td> <td></td> </tr> <tr> <td>Weight</td> <td>140 lb</td> <td></td> </tr> <tr> <td>Fall</td> <td>30"</td> <td></td> </tr> </tbody> </table>			Sample	Core	Type	SS		Int Diam.	3.25		Weight	140 lb		Fall	30"	
	Sample	Core																
Type	SS																	
Int Diam.	3.25																	
Weight	140 lb																	
Fall	30"																	

TEST BORING LOG

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THE <i>Chazen</i> COMPANIES		547 River Street Troy, New York 12180 Phn: (518) 273-0055 Fax: (518) 273-8391		PROJECT: Rapp Road Residential Development LOCATION: Rapp Road Guilderland, NY CLIENT: Pyramid Management Group, LLC PROJECT NO.: 317Al.00		Test Boring No.: SB1 Total Depth: 27 ft.		
Depth (Ft)	Elevation (Ft)	Sample No.	SPT Blows	Recovery (in)	Groundwater	Group Symbol	Stratum Descriptions:	Field Notes, Comments:
21	271.5		3	20	▼			
			3					
			5					
22	270.5							
23	269.5							
24	268.5							
25	267.5	SS-6	1	20		SP	Poorly Graded Sand (SP): Mostly fine Sand, grey, saturated	
			6					
26	266.5		9					
			11					
27	265.5						Boring Terminated at 27 feet	
28	264.5							
29	263.5							
30	262.5							
31	261.5							
32	260.5							
33	259.5							
34	258.5							
35	257.5							
36	256.5							
37	255.5							
38	254.5							
39	253.5							
40	252.5							
41	251.5							
42	250.5							
43	249.5							
44	248.5							
45	247.5							
ADDITIONAL NOTES:								

TEST BORING LOG

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THE Chazen COMPANIES		547 River Street Troy, New York 12180 Phn: (518) 273-0055 Fax: (518) 273-8391		PROJECT: Rapp Road Residential Development LOCATION: Rapp Road Guilderland, NY CLIENT: Pyramid Management Group, LLC PROJECT NO.: 317Al.00		Test Boring No.: SB2 Total Depth: 17 ft.	
Contractor: Aztech Environmental Drill Rig: 3230DT Driller: Derek Fennell Inspector: Dean Anderson				Start Date: 25-Jan-2018 Finish Date: 25-Jan-2018 El. Datum: NAVD-88 G.S. Elevation: 289.0		Northing: See Figure Easting: Latitude: - Longitude: -	
Borehole Dia.: 3.5 in. Water Depth: 17 ft. Bedrock Depth: n/a ft. Sample Hammer: Automatic							

Depth (Ft)	Elevation (Ft)	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum Descriptions:	Field Notes, Comments:
1	288	SS-1	2	12		SP	Poorly Graded Sand (SP): Mostly fine Sand, brown, moist (Glaciofluvial Deposits)	4" Topsoil 8" Frost
2	287		2					
3	286							
4	285							
5	284	SS-2	2	18		SP	Poorly Graded Sand (SP): Mostly fine Sand, brown/orange, moist	
6	283		2					
7	282		3					
8	281							
9	280							
10	279	SS-3	3	20		SP	Poorly Graded Sand (SP): Mostly fine Sand, light brown, moist	
11	278		2					
12	277		3					
13	276		4					
14	275							
15	274	SS-4	4	24		SP	Poorly Graded Sand (SP): Mostly fine Sand, light brown, mottled, moist	High water level
16	273		2					
17	272		3					
18	271		4					
19	270							
20	269							
							Boring Terminated at 17 feet	

METHODS: HA- Hollow Stem Auger, RW- Rotary Wash, SSA- Solid Stem Auger, DC-Diamond Core, DP-Direct Push SAMPLE TYPES: SS-Split Spoon, RC-Bedrock Core, GS-Geoprobe Sleeve, ST-Shelby Tube STANDARD 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted. NOTES: 2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet. 3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.				DRILLING INFORMATION Method: DP 0 to 15.0 Method: <table border="1"> <thead> <tr> <th></th> <th>Sample</th> <th>Core</th> </tr> </thead> <tbody> <tr> <td>Type</td> <td>SS</td> <td></td> </tr> <tr> <td>Int Diam.</td> <td>3.25</td> <td></td> </tr> <tr> <td>Weight</td> <td>140 lb</td> <td></td> </tr> <tr> <td>Fall</td> <td>30"</td> <td></td> </tr> </tbody> </table>					Sample	Core	Type	SS		Int Diam.	3.25		Weight	140 lb		Fall	30"	
	Sample	Core																				
Type	SS																					
Int Diam.	3.25																					
Weight	140 lb																					
Fall	30"																					

TEST BORING LOG

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THE Chazen COMPANIES		547 River Street Troy, New York 12180 Phn: (518) 273-0055 Fax: (518) 273-8391		PROJECT: Rapp Road Residential Development LOCATION: Rapp Road Guilderland, NY CLIENT: Pyramid Management Group, LLC PROJECT NO.: 317Al.00		Test Boring No.: SB3 Total Depth: 27 ft.	
Contractor: Aztech Environmental Drill Rig: 3230DT Driller: Derek Fennell Inspector: Dean Anderson				Start Date: 23-Jan-2018 Finish Date: 23-Jan-2018 El. Datum: NAVD-88 G.S. Elevation: 287.0		Northing: See Figure Easting: Latitude: - Longitude: -	
Borehole Dia.: 3.5 in. Water Depth: 11 ft. Bedrock Depth: n/a ft. Sample Hammer: Automatic							

Depth (Ft)	Elevation (Ft)	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum Descriptions:	Field Notes, Comments:
1	286	SS-1	3	18			Poorly Graded Sand (SP): Mostly fine Sand, brown, moist (Glaciofluvial Deposits)	4" Topsoil 3" Frost
2	285		4					
3	284		6					
4	283		7					
5	282	SS-2	3	18			Poorly Graded Sand (SP): Mostly fine Sand, tan, moist	
6	281		4					
7	280		3					
8	279		5					
9	278							
10	277	SS-3	4	16		SP	Poorly Graded Sand (SP): Mostly fine Sand, tan, moist	
11	276		1					Approximate Sub-Stratum Change
12	275		2			SM	Silty Sand (SM): Mostly fine Sand, little Silt, trace Clay, saturated, tan	
13	274		2					
14	273							
15	272	SS-4	10	18		SM	Silty Sand (SM): Mostly fine Sand, little Silt, grey, saturated	
16	271		10					
17	270		14					
18	269							
19	268							Approximate Sub-Stratum Change
20	267	SS-5	1	24		SP	Poorly Graded Sand (SP): Mostly fine Sand, trace Silt, grey, saturated	

METHODS: HA- Hollow Stem Auger, RW- Rotary Wash, SSA- Solid Stem Auger, DC-Diamond Core, DP-Direct Push SAMPLE TYPES: SS-Split Spoon, RC-Bedrock Core, GS-Geoprobe Sleeve, ST-Shelby Tube STANDARD 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted. NOTES: 2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet. 3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.		DRILLING INFORMATION Method: DP 0 to 25.0 Method:																
ADDITIONAL NOTES:		<table border="1"> <thead> <tr> <th></th> <th>Sample</th> <th>Core</th> </tr> </thead> <tbody> <tr> <td>Type</td> <td>SS</td> <td></td> </tr> <tr> <td>Int Diam.</td> <td>3.25</td> <td></td> </tr> <tr> <td>Weight</td> <td>140 lb</td> <td></td> </tr> <tr> <td>Fall</td> <td>30"</td> <td></td> </tr> </tbody> </table>			Sample	Core	Type	SS		Int Diam.	3.25		Weight	140 lb		Fall	30"	
	Sample	Core																
Type	SS																	
Int Diam.	3.25																	
Weight	140 lb																	
Fall	30"																	

TEST BORING LOG

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THE Chazen COMPANIES		547 River Street Troy, New York 12180 Phn: (518) 273-0055 Fax: (518) 273-8391		PROJECT: Rapp Road Residential Development LOCATION: Rapp Road Guilderland, NY CLIENT: Pyramid Management Group, LLC PROJECT NO.: 317Al.00		Test Boring No.: SB3 Total Depth: 27 ft.		
Depth (Ft)	Elevation (Ft)	Sample No.	SPT Blows	Recovery (in)	Groundwater	Group Symbol	Stratum Descriptions:	Field Notes, Comments:
21	266		1					
			1					
22	265		2					
23	264							
24	263							
25	262	SS-6	1	24		SP	Poorly Graded Sand (SP): Mostly fine Sand, dark brown/grey, saturated	
26	261		1					
			1					
27	260		4				Boring Terminated at 27 feet	
28	259							
29	258							
30	257							
31	256							
32	255							
33	254							
34	253							
35	252							
36	251							
37	250							
38	249							
39	248							
40	247							
41	246							
42	245							
43	244							
44	243							
45	242							
ADDITIONAL NOTES:								

TEST BORING LOG

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THE Chazen COMPANIES		547 River Street Troy, New York 12180 Phn: (518) 273-0055 Fax: (518) 273-8391		PROJECT: Rapp Road Residential Development LOCATION: Rapp Road Guilderland, NY CLIENT: Pyramid Management Group, LLC PROJECT NO.: 317Al.00			Test Boring No.: SB4																
Contractor: Aztech Environmental Drill Rig: 3230DT Driller: Derek Fennell Inspector: Dean Anderson				Start Date: 24-Jan-2018 Finish Date: 24-Jan-2018 El. Datum: NAVD-88 G.S. Elevation: 284.0		Northing: See Figure Easting: - Latitude: - Longitude: -		Total Depth: 17 ft. Borehole Dia.: 3.5 in. Water Depth: 13 ft. Bedrock Depth: n/a ft. Sample Hammer: Automatic															
Depth (Ft)	Elevation (Ft)	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum Descriptions:	Field Notes, Comments:															
1	283	SS-1	8	18		SP	Poorly Graded Sand (SP): Mostly fine Sand, brown to orange, moist (Glaciofluvial Deposits)	4" Topsoil 8" Frost															
2	282		1																				
3	281		2																				
4	280																						
5	279	SS-2	3	18		SP	Poorly Graded Sand (SP): Mostly fine Sand, orange to grey, moist																
6	278		3																				
7	277		4																				
8	276		6																				
9	275																						
10	274	SS-3	2	18		SP	Poorly Graded Sand (SP): Mostly fine Sand, brown/orange, moist																
11	273		2																				
12	272		3																				
13	271																						
14	270																						
15	269	SS-4	1	18		SP	Poorly Graded Sand (SP): Mostly fine Sand, brown, saturated																
16	268		1																				
17	267		1																				
18	266						Boring Terminated at 17 feet																
19	265																						
20	264																						
METHODS: HA- Hollow Stem Auger, RWH- Rotary Wash, SSA- Solid Stem Auger, DC-Diamond Core, DP-Direct Push SAMPLE TYPES: SS-Split Spoon, RC-Bedrock Core, GS-Geoprobe Sleeve, ST-Shelby Tube STANDARD 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted. NOTES: 2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet. 3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.							DRILLING INFORMATION Method: DP 0 to 15.0 Method: <table border="1"> <thead> <tr> <th></th> <th>Sample</th> <th>Core</th> </tr> </thead> <tbody> <tr> <td>Type</td> <td>SS</td> <td></td> </tr> <tr> <td>Int Diam.</td> <td>3.25</td> <td></td> </tr> <tr> <td>Weight</td> <td>140 lb</td> <td></td> </tr> <tr> <td>Fall</td> <td>30"</td> <td></td> </tr> </tbody> </table>			Sample	Core	Type	SS		Int Diam.	3.25		Weight	140 lb		Fall	30"	
	Sample	Core																					
Type	SS																						
Int Diam.	3.25																						
Weight	140 lb																						
Fall	30"																						
ADDITIONAL NOTES:																							

TEST BORING LOG

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THE Chazen COMPANIES		547 River Street Troy, New York 12180 Phn: (518) 273-0055 Fax: (518) 273-8391		PROJECT: Rapp Road Residential Development LOCATION: Rapp Road Guilderland, NY CLIENT: Pyramid Management Group, LLC PROJECT NO.: 317Al.00			Test Boring No.: SB5																
Contractor: Aztech Environmental Drill Rig: 3230DT Driller: Derek Fennell Inspector: Dean Anderson				Start Date: 23-Jan-2018 Finish Date: 23-Jan-2018 El. Datum: NAVD-88 G.S. Elevation: 289.0		Northing: See Figure Easting: Latitude: - Longitude: -		Total Depth: 17 ft. Borehole Dia.: 3.5 in. Water Depth: 16.5 ft. Bedrock Depth: n/a ft. Sample Hammer: Automatic															
Depth (Ft)	Elevation (Ft)	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum Descriptions:	Field Notes, Comments:															
1	288	SS-1	1	10		SP	Poorly Graded Sand (SP): Mostly fine Sand, orange, moist (Glaciofluvial Deposits)	4" Topsoil 3" Frost															
2	287		2																				
3	286		1																				
4	285		1																				
5	284	SS-2	10	16		SP	Poorly Graded Sand (SP): Mostly fine Sand, brown, moist																
6	283		3																				
7	282		3																				
8	281		4																				
9	280																						
10	279	SS-3	6	14		SP	Poorly Graded Sand (SP): Mostly fine Sand, brown, moist																
11	278		5																				
12	277		6																				
13	276		7																				
14	275																						
15	274	SS-4	4	16		SP	Poorly Graded Sand (SP): Mostly fine Sand, trace Silt, brown, moist to saturated																
16	273		3																				
17	272		2																				
18	271		2				Boring Terminated at 17 feet																
19	270																						
20	269																						
METHODS: HA- Hollow Stem Auger, RW- Rotary Wash, SSA- Solid Stem Auger, DC-Diamond Core, DP-Direct Push SAMPLE TYPES: SS-Split Spoon, RC-Bedrock Core, GS-Geoprobe Sleeve, ST-Shelby Tube STANDARD 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted. NOTES: 2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet. 3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.							DRILLING INFORMATION Method: DP 0 to 15.0 Method: <table border="1"> <thead> <tr> <th></th> <th>Sample</th> <th>Core</th> </tr> </thead> <tbody> <tr> <td>Type</td> <td>SS</td> <td></td> </tr> <tr> <td>Int Diam.</td> <td>3.25</td> <td></td> </tr> <tr> <td>Weight</td> <td>140 lb</td> <td></td> </tr> <tr> <td>Fall</td> <td>30"</td> <td></td> </tr> </tbody> </table>			Sample	Core	Type	SS		Int Diam.	3.25		Weight	140 lb		Fall	30"	
	Sample	Core																					
Type	SS																						
Int Diam.	3.25																						
Weight	140 lb																						
Fall	30"																						
ADDITIONAL NOTES:																							

TEST BORING LOG

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THE Chazen COMPANIES		547 River Street Troy, New York 12180 Phn: (518) 273-0055 Fax: (518) 273-8391		PROJECT: Rapp Road Residential Development LOCATION: Rapp Road Guilderland, NY CLIENT: Pyramid Management Group, LLC PROJECT NO.: 317Al.00		Test Boring No.: SB6 Total Depth: 27 ft.	
Contractor: Aztech Environmental Drill Rig: 3230DT Driller: Derek Fennell Inspector: Dean Anderson				Start Date: 25-Jan-2018 Finish Date: 25-Jan-2018 El. Datum: NAVD-88 G.S. Elevation: 286.0		Northing: See Figure Easting: - Latitude: - Longitude: -	
Borehole Dia.: 3.5 in. Water Depth: 13 ft. Bedrock Depth: n/a ft. Sample Hammer: Automatic							

Depth (Ft)	Elevation (Ft)	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum Descriptions:	Field Notes, Comments:
1	285	SS-1	27	20		SP-SM	Poorly Graded Sand w/ Gravel & Silt (SP-SM): Mostly fine Sand, little Gravel, few Silt, brown, dry (Glaciofluvial Deposits)	4" Topsoil 16" Frost
2	284		6			SP	Poorly Graded Sand (SP): Mostly fine Sand, trace Silt, orange, moist	
3	283		7					
4	282							
5	281	SS-2	5	16		SP	Poorly Graded Sand (SP): Mostly fine Sand, trace Silt, orange, moist	
6	280		3					
7	279		4					
8	278							
9	277							
10	276	SS-3	1	18		SP	Poorly Graded Sand (SP): Mostly fine Sand, trace Silt, orange, moist	
11	275		1					
12	274		2					
13	273							
14	272							
15	271	SS-4	2	24		SP	Poorly Graded Sand (SP): Mostly fine Sand, trace Silt, grey, saturated	
16	270		4					
17	269		5					
18	268		6					
19	267							
20	266	SS-5	2	24		SP	Poorly Graded Sand (SP): Mostly fine Sand, trace Silt, grey, saturated	

METHODS: HA- Hollow Stem Auger, RW- Rotary Wash, SSA- Solid Stem Auger, DC-Diamond Core, DP-Direct Push		DRILLING INFORMATION	
SAMPLE TYPES: SS-Split Spoon, RC-Bedrock Core, GS-Geoprobe Sleeve, ST-Shelby Tube		Method: DP	0 to 25.0
STANDARD 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.		Method:	
NOTES: 2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet. 3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.			
ADDITIONAL NOTES:		Type	SS
		Int Diam.	3.25
		Weight	140 lb
		Fall	30"

TEST BORING LOG

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THE <i>Chazen</i> COMPANIES		547 River Street Troy, New York 12180 Phn: (518) 273-0055 Fax: (518) 273-8391		PROJECT: Rapp Road Residential Development LOCATION: Rapp Road Guilderland, NY CLIENT: Pyramid Management Group, LLC PROJECT NO.: 317Al.00		Test Boring No.: SB6 Total Depth: 27 ft.		
Depth (Ft)	Elevation (Ft)	Sample No.	SPT Blows	Recovery (in)	Groundwater	Group Symbol	Stratum Descriptions:	Field Notes, Comments:
21	265		3					
			4					
22	264		2					
23	263							
24	262							
25	261	SS-6	2	24		SP	Poorly Graded Sand (SP): Mostly fine Sand, trace Silt, grey, saturated	
26	260		3					
			1					
27	259		1				Boring Terminated at 27 feet	
28	258							
29	257							
30	256							
31	255							
32	254							
33	253							
34	252							
35	251							
36	250							
37	249							
38	248							
39	247							
40	246							
41	245							
42	244							
43	243							
44	242							
45	241							
ADDITIONAL NOTES:								

TEST BORING LOG

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THE Chazen COMPANIES		547 River Street Troy, New York 12180 Phn: (518) 273-0055 Fax: (518) 273-8391		PROJECT: Rapp Road Residential Development LOCATION: Rapp Road Guilderland, NY CLIENT: Pyramid Management Group, LLC PROJECT NO.: 317AI.00		Test Boring No.: SB8 Total Depth: 27 ft.	
Contractor: Aztech Environmental Drill Rig: 3230DT Driller: Derek Fennell Inspector: Dean Anderson				Start Date: 23-Jan-2018 Finish Date: 23-Jan-2018 El. Datum: NAVD-88 G.S. Elevation: 285.0		Northing: See Figure Easting: Latitude: - Longitude: -	
Borehole Dia.: 3.5 in. Water Depth: 13 ft. Bedrock Depth: n/a ft. Sample Hammer: Automatic							

Depth (Ft)	Elevation (Ft)	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum Descriptions:	Field Notes, Comments:
1	284	SS-1	1	10		SP	Poorly Graded Sand (SP): Mostly fine Sand, orange, moist (Fill)	4" Topsoil Few Brick Fragments 6" Frost
2	283		2					
3	282		1					Appximate Strata Change
4	281						(Glaciofluvial Deposits)	
5	280	SS-2	4	20		SP	Poorly Graded Sand (SP): Mostly fine Sand, grey, moist	
6	279		2					
7	278		4					
8	277		2					
9	276							
10	275	SS-3	3	16		SP	Poorly Graded Sand (SP): Mostly fine Sand, grey, moist	
11	274		2					
12	273		3					
13	272		2					
14	271							
15	270	SS-4	2	18		SP	Poorly Graded Sand (SP): Mostly fine Sand, brown, saturated	
16	269		3					
17	268		1					
18	267		4					
19	266							
20	265	SS-5	1	20		SP	Poorly Graded Sand (SP): Mostly fine Sand, grey, saturated	Running Sands

METHODS: HA- Hollow Stem Auger, RW- Rotary Wash, SSA- Solid Stem Auger, DC-Diamond Core, DP-Direct Push SAMPLE TYPES: SS-Split Spoon, RC-Bedrock Core, GS-Geoprobe Sleeve, ST-Shelby Tube STANDARD 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted. NOTES: 2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet. 3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.		DRILLING INFORMATION Method: DP 0 to 25.0 Method:																
ADDITIONAL NOTES:		<table border="1"> <thead> <tr> <th></th> <th>Sample</th> <th>Core</th> </tr> </thead> <tbody> <tr> <td>Type</td> <td>SS</td> <td></td> </tr> <tr> <td>Int Diam.</td> <td>3.25</td> <td></td> </tr> <tr> <td>Weight</td> <td>140 lb</td> <td></td> </tr> <tr> <td>Fall</td> <td>30"</td> <td></td> </tr> </tbody> </table>			Sample	Core	Type	SS		Int Diam.	3.25		Weight	140 lb		Fall	30"	
	Sample	Core																
Type	SS																	
Int Diam.	3.25																	
Weight	140 lb																	
Fall	30"																	

TEST BORING LOG

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THE <i>Chazen</i> COMPANIES		547 River Street Troy, New York 12180 Phn: (518) 273-0055 Fax: (518) 273-8391		PROJECT: Rapp Road Residential Development LOCATION: Rapp Road Guilderland, NY CLIENT: Pyramid Management Group, LLC PROJECT NO.: 317Al.00		Test Boring No.: SB8 Total Depth: 27 ft.		
Depth (Ft)	Elevation (Ft)	Sample No.	SPT Blows	Recovery (in)	Groundwater	Group Symbol	Stratum Descriptions:	Field Notes, Comments:
21	264		4					
			2					
22	263		3					
23	262							
24	261							
25	260	SS-6	2	24		SP	Poorly Graded Sand (SP): Mostly fine Sand, grey, saturated	
			2					
26	259		4					
27	258		1				Boring Terminated at 27 feet	
28	257							
29	256							
30	255							
31	254							
32	253							
33	252							
34	251							
35	250							
36	249							
37	248							
38	247							
39	246							
40	245							
41	244							
42	243							
43	242							
44	241							
45	240							
ADDITIONAL NOTES:								

TEST BORING LOG

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THE Chazen COMPANIES 547 River Street Troy, New York 12180 Phn: (518) 273-0055 Fax: (518) 273-8391		PROJECT: Rapp Road Residential Development LOCATION: Rapp Road Guilderland, NY CLIENT: Pyramid Management Group, LLC PROJECT NO.: 317AI.00		Test Boring No.: SB7 Total Depth: 27 ft.	
Contractor: Aztech Environmental Drill Rig: 3230DT Driller: Derek Fennell Inspector: Dean Anderson		Start Date: 22-Jan-2018 Finish Date: 22-Jan-2018 El. Datum: NAVD-88 G.S. Elevation: 289.0		Northing: See Figure Easting: Latitude: - Longitude: -	
Borehole Dia.: 3.5 in. Water Depth: 16 ft. Bedrock Depth: n/a ft. Sample Hammer: Automatic					

Depth (Ft)	Elevation (Ft)	Sample No.	SPT Blows	Recovery (in)	Groundwater	Group Symbol	Stratum Descriptions:	Field Notes, Comments:
1	288	SS-1	4	16		SP	Poorly Graded Sand (SP): Mostly fine Sand, brown/orange, moist (Glaciofluvial Deposits)	3" Topsoil 6" Frost
2	287		3					
3	286		3					
4	285							
5	284	SS-2	8	16		SP	Poorly Graded Sand (SP): Mostly fine Sand, orange, moist	
6	283		6					
7	282		6					
8	281		7					
9	280							
10	279	SS-3	4	18		SP-SM	Poorly Graded Sand w/ Silt (SP-SM): Mostly fine Sand, few Silt, orange to brown, moist	
11	278		6					
12	277		6					
13	276		7					
14	275							
15	274	SS-4	3	20		SP	Poorly Graded Sand (SP): Mostly fine Sand, trace Silt, grey, moist to saturated	
16	273		1					
17	272		2					
18	271		2					
19	270							
20	269	SS-5	3	18		SP	Poorly Graded Sand (SP): Mostly fine Sand, trace Silt, grey, saturated	

METHODS: HA- Hollow Stem Auger, RW- Rotary Wash, SSA- Solid Stem Auger, DC- Diamond Core, DP- Direct Push SAMPLE TYPES: SS- Split Spoon, RC- Bedrock Core, GS- Geoprobe Sleeve, ST- Shelby Tube STANDARD 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted. NOTES: 2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet. 3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.		DRILLING INFORMATION Method: DP 0 to 25.0 Method: Sample Core Type SS Int Diam. 3.25 Weight 140 lb Fall 30"	
ADDITIONAL NOTES:			

TEST BORING LOG

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THE Chazen COMPANIES		547 River Street Troy, New York 12180 Phn: (518) 273-0055 Fax: (518) 273-8391		PROJECT: Rapp Road Residential Development LOCATION: Rapp Road Guilderland, NY CLIENT: Pyramid Management Group, LLC PROJECT NO.: 317Al.00		Test Boring No.: SB7 Total Depth: 27 ft.		
Depth (Ft)	Elevation (Ft)	Sample No.	SPT Blows	Recovery (in)	Groundwater	Group Symbol	Stratum Descriptions:	Field Notes, Comments:
21	268		3					
			3					
22	267		6					
23	266							
24	265							
25	264	SS-6	2	18		SP	Poorly Graded Sand (SP): Mostly fine Sand, trace Silt, grey, saturated	
26	263		2					
			5					
27	262		12				Boring Terminated at 27 feet	
28	261							
29	260							
30	259							
31	258							
32	257							
33	256							
34	255							
35	254							
36	253							
37	252							
38	251							
39	250							
40	249							
41	248							
42	247							
43	246							
44	245							
45	244							
ADDITIONAL NOTES:								

TEST BORING LOG

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		547 River Street Troy, New York 12180 Phn: (518) 273-0055 Fax: (518) 273-8391		PROJECT: Rapp Road Residential Development LOCATION: Rapp Road Guilderland, NY CLIENT: Pyramid Management Group, LLC PROJECT NO.: 317AI.00				Test Boring No.: SB9	
Contractor: Aztech Environmental Drill Rig: 3230DT Driller: Derek Fennell Inspector: Dean Anderson				Start Date: 23-Jan-2018 Finish Date: 23-Jan-2018 El. Datum: NAVD-88 G.S. Elevation: 283.5		Northing: See Figure Easting: Latitude: - Longitude: -		Total Depth: 22 ft. Borehole Dia.: 3.5 in. Water Depth: 11.5 ft. Bedrock Depth: n/a ft. Sample Hammer: Automatic	
Depth (Ft)	Elevation (Ft)	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum Descriptions:	Field Notes, Comments:	
1	282.5	SS-1	2	12		SP	Poorly Graded Sand (SP): Mostly fine Sand, black to orange, moist (Glaciofluvial Deposits)	6" Topsoil 8" Frost	
2	281.5		4						
3	280.5		2						
4	279.5								
5	278.5	SS-2	4	14		SP	Poorly Graded Sand (SP): Mostly fine Sand, grey, moist		
6	277.5		3						
7	276.5		3						
8	275.5		4						
9	274.5								
10	273.5	SS-3	2	12		SP	Poorly Graded Sand (SP): Mostly fine Sand, brown, moist to saturated		
11	272.5		1						
12	271.5		2						
13	270.5		1						
14	269.5								
15	268.5	SS-4	2	16		SP	Poorly Graded Sand (SP): Mostly fine Sand, brown/grey, saturated		
16	267.5		1						
17	266.5		1						
18	265.5		2						
19	264.5								
20	263.5	SS-5	2	24		SP	Poorly Graded Sand (SP): Mostly fine Sand, grey, saturated		
METHODS: HA- Hollow Stem Auger, RW- Rotary Wash, SSA- Solid Stem Auger, DC-Diamond Core, DP-Direct Push SAMPLE TYPES: SS-Split Spoon, RC-Bedrock Core, GS-Geoprobe Sleeve, ST-Shelby Tube STANDARD 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted. NOTES: 2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet. 3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.								DRILLING INFORMATION Method: DP 0 to 20.0 Method: Sample Core Type SS Int Diam. 3.25 Weight 140 lb Fall 30"	
ADDITIONAL NOTES:									

TEST BORING LOG

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		547 River Street Troy, New York 12180 Phn: (518) 273-0055 Fax: (518) 273-8391		PROJECT: Rapp Road Residential Development LOCATION: Rapp Road Guilderland, NY CLIENT: Pyramid Management Group, LLC PROJECT NO.: 317Al.00		Test Boring No.: SB9 Total Depth: 22 ft.		
Depth (Ft)	Elevation (Ft)	Sample No.	SPT Blows	Recovery (in)	Groundwater	Group Symbol	Stratum Descriptions:	Field Notes, Comments:
21	263		1					
			3					
22	262		1				Boring Terminated at 22 feet	
23	261							
24	260							
25	259							
26	258							
27	257							
28	256							
29	255							
30	254							
31	253							
32	252							
33	251							
34	250							
35	249							
36	248							
37	247							
38	246							
39	245							
40	244							
41	243							
42	242							
43	241							
44	240							
45	239							
ADDITIONAL NOTES:								

TEST BORING LOG

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THE Chazen COMPANIES		547 River Street Troy, New York 12180 Phn: (518) 273-0055 Fax: (518) 273-8391		PROJECT: Rapp Road Residential Development LOCATION: Rapp Road Guilderland, NY CLIENT: Pyramid Management Group, LLC PROJECT NO.: 317AI.00			Test Boring No.: SB10	
Contractor: Aztech Environmental Drill Rig: 3230DT Driller: Derek Fennell Inspector: Dean Anderson				Start Date: 25-Jan-2018 Finish Date: 25-Jan-2018 El. Datum: NAVD-88 G.S. Elevation: 283.0		Northing: See Figure Easting: Latitude: - Longitude: -		Total Depth: 27 ft. Borehole Dia.: 3.5 in. Water Depth: 9 ft. Bedrock Depth: n/a ft. Sample Hammer: Automatic
Depth (Ft)	Elevation (Ft)	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum Descriptions:	Field Notes, Comments:
1	282	SS-1	3	20		SP	Poorly Graded Sand (SP): Mostly fine Sand, brown/orange to light brown, moist (Glaciofluvial Deposits)	6" Topsoil 8" Frost
2	281		1					
3	280		2					
4	279							
5	278	SS-2	6	18		SP	Poorly Graded Sand (SP): Mostly fine Sand, grey, moist	
6	277		4					
7	276		4					
8	275							
9	274							
10	273	SS-3	2	18		SP	Poorly Graded Sand (SP): Mostly fine Sand, brown, saturated	
11	272		1					
12	271							
13	270							
14	269							
15	268	SS-4	4	24		SP	Poorly Graded Sand (SP): Mostly fine Sand, brown, saturated	
16	267		5					
17	266		6					
18	265		7					
19	264							
20	263	SS-5	1	20		SP	Poorly Graded Sand (SP): Mostly fine Sand, brown, saturated	Running Sands @ 20 feet
METHODS: HA- Hollow Stem Auger, RW- Rotary Wash, SSA- Solid Stem Auger, DC-Diamond Core, DP-Direct Push							DRILLING INFORMATION	
SAMPLE TYPES: SS-Split Spoon, RC-Bedrock Core, GS-Geoprobe Sleeve, ST-Shelby Tube							Method: DP 0 to 25.0	
STANDARD 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.							Method:	
NOTES: 2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet.							Sample Core	
3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.							Type SS	
ADDITIONAL NOTES:							Int Diam. 3.25	
							Weight 140 lb	
							Fall 30"	

TEST BORING LOG

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THE Chazen COMPANIES		547 River Street Troy, New York 12180 Phn: (518) 273-0055 Fax: (518) 273-8391		PROJECT: Rapp Road Residential Development LOCATION: Rapp Road Guilderland, NY CLIENT: Pyramid Management Group, LLC PROJECT NO.: 317Al.00		Test Boring No.: SB10 Total Depth: 27 ft.		
Depth (Ft)	Elevation (Ft)	Sample No.	SPT Blows	Recovery (in)	Groundwater	Group Symbol	Stratum Descriptions:	Field Notes, Comments:
21	262		1					
			1					
22	261							
23	260							
24	259							Approximate Sub-Stratum Change
25	258	SS-6	3	20		SM	Silty Sand (SM): Mostly fine Sand, little Silt, grey, saturated	
26	257		9					
			7					
27	256		9				Boring Terminated at 27 feet	
28	255							
29	254							
30	253							
31	252							
32	251							
33	250							
34	249							
35	248							
36	247							
37	246							
38	245							
39	244							
40	243							
41	242							
42	241							
43	240							
44	239							
45	238							
ADDITIONAL NOTES:								

TEST BORING LOG

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THE Chazen COMPANIES		547 River Street Troy, New York 12180 Phn: (518) 273-0055 Fax: (518) 273-8391		PROJECT: Rapp Road Residential Development LOCATION: Rapp Road Guilderland, NY CLIENT: Pyramid Management Group, LLC PROJECT NO.: 317Al.00			Test Boring No.: SB11	
Contractor: Aztech Environmental Drill Rig: 3230DT Driller: Derek Fennell Inspector: Dean Anderson				Start Date: 24-Jan-2018 Finish Date: 24-Jan-2018 El. Datum: NAVD-88 G.S. Elevation: 286.0		Northing: See Figure Easting: Latitude: - Longitude: -		Total Depth: 52 ft. Borehole Dia.: 3.5 in. Water Depth: 11.5 ft. Bedrock Depth: n/a ft. Sample Hammer: Automatic
Depth (Ft)	Elevation (Ft)	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum Descriptions:	Field Notes, Comments:
1	285	SS-1	1	18		SP	Poorly Graded Sand (SP): Mostly fine Sand, orange to brown, moist (Glaciofluvial Deposits)	4" Topsoil 6" Frost
2	284		2					
3	283		2					
4	282							
5	281	SS-2	6	18		SP	Poorly Graded Sand (SP): Mostly fine Sand, trace Silt, orange/brown, moist	
6	280		5					
7	279		6					
8	278							
9	277							
10	276	SS-3	5	18		SP	Poorly Graded Sand (SP): Mostly fine Sand, trace Silt, orange/brown, moist to saturated	
11	275		3					
12	274		4					
13	273							
14	272							
15	271	SS-4	2	20		SP	Poorly Graded Sand (SP): Mostly fine Sand, brown, saturated	
16	270		2					
17	269		2					
18	268							
19	267							
20	266	SS-5	2	24		SP	Poorly Graded Sand (SP): Mostly fine Sand, brown, saturated	Running Sands @ 20 feet
METHODS: HA- Hollow Stem Auger, RW- Rotary Wash, SSA- Solid Stem Auger, DC-Diamond Core, DP-Direct Push							DRILLING INFORMATION	
SAMPLE TYPES: SS-Split Spoon, RC-Bedrock Core, GS-Geoprobe Sleeve, ST-Shelby Tube							Method: DP 0 to 50.0	
STANDARD 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.							Method:	
NOTES: 2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet.							Sample Core	
3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.							Type SS	
ADDITIONAL NOTES:							Int Diam. 3.25	
							Weight 140 lb	
							Fall 30"	

TEST BORING LOG

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THE <i>Chazen</i> COMPANIES		547 River Street Troy, New York 12180 Phn: (518) 273-0055 Fax: (518) 273-8391		PROJECT: Rapp Road Residential Development LOCATION: Rapp Road Guilderland, NY CLIENT: Pyramid Management Group, LLC PROJECT NO.: 317Al.00		Test Boring No.: SB11 Total Depth: 52 ft.		
Depth (Ft)	Elevation (Ft)	Sample No.	SPT Blows	Recovery (in)	Groundwater	Group Symbol	Stratum Descriptions:	Field Notes, Comments:
21	265		1					
			1					
			4					
22	264							
23	263							
24	262							
25	261	SS-6	2	12		SP	Poorly Graded Sand (SP): Mostly fine Sand, brown, saturated	
			2					
26	260		6					
			4					
27	259							
28	258							
29	257							
30	256	SS-7	3	18		SP	Poorly Graded Sand (SP): Mostly fine Sand, brown, saturated	
			3					
31	255		4					
			5					
32	254							
33	253							
34	252							
35	251	SS-8	3	14		SP	Poorly Graded Sand (SP): Mostly fine Sand, trace Silt, brown, saturated	
			5					
36	250		8					
			10					
37	249							
38	248							
39	247							
40	246	SS-9	2	14		SP	Poorly Graded Sand (SP): Mostly fine Sand, grey, saturated	
			2					
41	245		2					
			2					
42	244							
43	243							
44	242							
45	241	SS-10	6	24		SP	Poorly Graded Sand (SP): Mostly fine Sand, grey, saturated	
ADDITIONAL NOTES:								

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THE Chazen COMPANIES		547 River Street Troy, New York 12180 Phn: (518) 273-0055 Fax: (518) 273-8391		PROJECT: Rapp Road Residential Development LOCATION: Rapp Road Guilderland, NY CLIENT: Pyramid Management Group, LLC PROJECT NO.: 317Al.00		Test Boring No.: SB11 Total Depth: 52 ft.		
Depth (Ft)	Elevation (Ft)	Sample No.	SPT Blows	Recovery (in)	Groundwater	Group Symbol	Stratum Descriptions:	Field Notes, Comments:
46	240		7					
			5					
47	239		3					
48	238							
49	237							
50	236	SS-11	6	24		SP	Poorly Graded Sand (SP): Mostly fine Sand, grey, saturated	
51	235		5					
			7					
52	234		4				Boring Terminated at 52 feet	
53	233							
54	232							
55	231							
56	230							
57	229							
58	228							
59	227							
60	226							
61	225							
62	224							
63	223							
64	222							
65	221							
66	220							
67	219							
68	218							
69	217							
70	216							
ADDITIONAL NOTES:								

TEST BORING LOG

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THE Chazen COMPANIES 547 River Street Troy, New York 12180 Phn: (518) 273-0055 Fax: (518) 273-8391		PROJECT: Rapp Road Residential Development LOCATION: Rapp Road Guilderland, NY CLIENT: Pyramid Management Group, LLC PROJECT NO.: 317AI.00		Test Boring No.: SB12 Total Depth: 17 ft.					
Contractor: Aztech Environmental Drill Rig: 3230DT Driller: Derek Fennell Inspector: Dean Anderson		Start Date: 29-Jan-2018 Finish Date: 29-Jan-2018 El. Datum: NAVD-88 G.S. Elevation: 285.0	Northing: See Figure Easting: See Figure Latitude: - Longitude: -	Borehole Dia.: 3.5 in. Water Depth: 13 ft. Bedrock Depth: n/a ft. Sample Hammer: Automatic					
Depth (Ft)	Elevation (Ft)	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum Descriptions:	Field Notes, Comments:	
1	284	SS-1	1	12		SP	Poorly Graded Sand (SP): Mostly fine Sand, orange, moist (Glaciofluvial Deposits)	4" Topsoil 3" Frost	
2	283		1						
			4						
3	282								
4	281								
5	280	SS-2	6	20		SP	Poorly Graded Sand (SP): Mostly fine Sand, orange, moist		
6	279		6						
			7						
7	278		8						
8	277								
9	276								
10	275	SS-3	3	20		SP	Poorly Graded Sand (SP): Mostly fine Sand, orange/grey, moist		
11	274		3						
12	273		5						
13	272								
14	271								
15	270	SS-4	5	20		SP	Poorly Graded Sand (SP): Mostly fine Sand, grey, saturated		
16	269		4						
			6						
17	268		7						
18	267						Boring Termination at 17 feet		
19	266								
20	265								
METHODS: HA- Hollow Stem Auger, RW- Rotary Wash, SSA- Solid Stem Auger, DC-Diamond Core, DP-Direct Push SAMPLE TYPES: SS-Split Spoon, RC-Bedrock Core, GS-Geoprobe Sleeve, ST-Shelby Tube STANDARD 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted. NOTES: 2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet. 3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.								DRILLING INFORMATION Method: DP 0 to 15.0 Method: Sample Core Type SS Int Diam. 3.25 Weight 140 lb Fall 30"	
ADDITIONAL NOTES:									

TEST BORING LOG

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THE Chazen COMPANIES		547 River Street Troy, New York 12180 Phn: (518) 273-0055 Fax: (518) 273-8391		PROJECT: Rapp Road Residential Development LOCATION: Rapp Road Guilderland, NY CLIENT: Pyramid Management Group, LLC PROJECT NO.: 317AI.00			Test Boring No.: SB13	
Contractor: Aztech Environmental Drill Rig: 3230DT Driller: Derek Fennell Inspector: Dean Anderson				Start Date: 22-Jan-2018 Finish Date: 22-Jan-2018 El. Datum: NAVD-88 G.S. Elevation: 285.0		Northing: See Figure Easting: - Latitude: - Longitude: -		Total Depth: 27 ft. Borehole Dia.: 3.5 in. Water Depth: 13 ft. Bedrock Depth: n/a ft. Sample Hammer: Automatic
Depth (Ft)	Elevation (Ft)	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum Descriptions:	Field Notes, Comments:
1	284	SS-1	13	14		SP	Poorly Graded Sand w/ Gravel (SP): Mostly fine Sand, little Gravel, trace Silt, brown, moist (Glaciofluvial Deposits)	6" Topsoil 8" Frost
2	283		12					
			14					
			17					
3	282							
4	281							
5	280	SS-2	7	24		SP	Poorly Graded Sand (SP): Mostly fine Sand, mottling, tan, moist	
6	279		5					
			6					
7	278		7					
8	277							
9	276							
10	275	SS-3	4	24		SP	Poorly Graded Sand (SP): Mostly fine Sand, grey, moist	
11	274		4					
			5					
12	273		6					
13	272							
14	271							
15	270	SS-4	4	12		SP	Poorly Graded Sand (SP): Mostly fine Sand, grey, saturated	
16	269		5					
			6					
17	268		5					
18	267							
19	266							
20	265	SS-5	2	24		SP	Poorly Graded Sand (SP): Mostly fine Sand, grey, saturated	
METHODS: HA- Hollow Stem Auger, RW- Rotary Wash, SSA- Solid Stem Auger, DC-Diamond Core, DP-Direct Push							DRILLING INFORMATION	
SAMPLE TYPES: SS-Split Spoon, RC-Bedrock Core, GS-Geoprobe Sleeve, ST-Shelby Tube							Method:	DP
STANDARD 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.							Method:	0 to 25.0
NOTES: 2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet.								Sample
3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.								Core
ADDITIONAL NOTES:							Type	SS
							Int Diam.	3.25
							Weight	140 lb
							Fall	30"

TEST BORING LOG

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THE <i>Chazen</i> COMPANIES		547 River Street Troy, New York 12180 Phn: (518) 273-0055 Fax: (518) 273-8391		PROJECT: Rapp Road Residential Development LOCATION: Rapp Road Guilderland, NY CLIENT: Pyramid Management Group, LLC PROJECT NO.: 317Al.00		Test Boring No.: SB13		
						Total Depth: 27 ft.		
Depth (Ft)	Elevation (Ft)	Sample No.	SPT Blows	Recovery (in)	Groundwater	Group Symbol	Stratum Descriptions:	Field Notes, Comments:
21	264		4					
			6					
22	263		7					
23	262							
24	261							
25	260	SS-6	1	20		SP	Poorly Graded Sand (SP): Mostly fine Sand, grey, saturated	
26	259		1					
			2					
27	258		1					
							Boring Terminated at 27 feet	
28	257							
29	256							
30	255							
31	254							
32	253							
33	252							
34	251							
35	250							
36	249							
37	248							
38	247							
39	246							
40	245							
41	244							
42	243							
43	242							
44	241							
45	240							
ADDITIONAL NOTES:								

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THE Chazen COMPANIES		547 River Street Troy, New York 12180 Phn: (518) 273-0055 Fax: (518) 273-8391		PROJECT: Rapp Road Residential Development LOCATION: Rapp Road Guilderland, NY CLIENT: Pyramid Management Group, LLC PROJECT NO.: 317Al.00		Test Boring No.: SB14 Total Depth: 27 ft.		
Depth (Ft)	Elevation (Ft)	Sample No.	SPT Blows	Recovery (in)	Groundwater	Group Symbol	Stratum Descriptions:	Field Notes, Comments:
21	269.5		9					
			10					
22	268.5		11					
23	267.5							
24	266.5							
25	265.5	SS-8	7	20		SM	Silty Sand (SM): Mostly fine Sand, little Silt, grey, saturated	
			7					
26	264.5		8					
			8					
27	263.5						Boring Terminated at 27 feet	
28	262.5							
29	261.5							
30	260.5							
31	259.5							
32	258.5							
33	257.5							
34	256.5							
35	255.5							
36	254.5							
37	253.5							
38	252.5							
39	251.5							
40	250.5							
41	249.5							
42	248.5							
43	247.5							
44	246.5							
45	245.5							
ADDITIONAL NOTES:								

TEST BORING LOG

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THE Chazen COMPANIES 547 River Street Troy, New York 12180 Phn: (518) 273-0055 Fax: (518) 273-8391		PROJECT: Rapp Road Residential Development LOCATION: Rapp Road Guilderland, NY CLIENT: Pyramid Management Group, LLC PROJECT NO.: 317AI.00		Test Boring No.: SB15 Total Depth: 17 ft.				
Contractor: Aztech Environmental Drill Rig: 3230DT Driller: Derek Fennell Inspector: Dean Anderson		Start Date: 25-Jan-2018 Finish Date: 25-Jan-2018 El. Datum: NAVD-88 G.S. Elevation: 288.0	Northing: See Figure Easting: Latitude: - Longitude: -	Borehole Dia.: 3.5 in. Water Depth: 13 ft. Bedrock Depth: n/a ft. Sample Hammer: Automatic				
Depth (Ft)	Elevation (Ft)	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum Descriptions:	Field Notes, Comments:
1	287	SS-1	4	16		SP	Poorly Graded Sand (SP): Mostly fine Sand, brown, wet (Glaciofluvial Deposits)	No Topsoil 6" Frost
2	286		5					
3	285		6					
4	284							
5	283	SS-2	5	18		SP	Poorly Graded Sand (SP): Mostly fine Sand, light brown, moist	
6	282		5					
7	281		6					
8	280							
9	279							
10	278	SS-3	5	18		SP	Poorly Graded Sand (SP): Mostly fine Sand, grey, moist	
11	277		3					
12	276		3					
13	275		5					
14	274							
15	273	SS-4		22		SP	Poorly Graded Sand (SP): Mostly fine Sand, brown, saturated	
16	272		1					
17	271						Boring Terminated at 17 feet	
18	270							
19	269							
20	268							
METHODS: HA- Hollow Stem Auger, RW- Rotary Wash, SSA- Solid Stem Auger, DC- Diamond Core, DP- Direct Push SAMPLE TYPES: SS- Split Spoon, RC- Bedrock Core, GS- Geoprobe Sleeve, ST- Shelby Tube STANDARD 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted. NOTES: 2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet. 3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.							DRILLING INFORMATION Method: DP 0 to 15.0 Method: Sample Core Type SS Int Diam. 3.25 Weight 140 lb Fall 30"	
ADDITIONAL NOTES:								

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TEST BORING LOG

		547 River Street Troy, New York 12180 Phn: (518) 273-0055 Fax: (518) 273-8391		PROJECT: Rapp Road Residential Development LOCATION: Rapp Road Guilderland, NY CLIENT: Pyramid Management Group, LLC PROJECT NO.: 317A1.00			Test Boring No.: SB16	
				Start Date: 22-Jan-2018 Northing: See Figure Finish Date: 22-Jan-2018 Easting: EL. Datum: NAVD-88 Latitude: - G.S. Elevation: 286.0 Longitude: -			Total Depth: 27 ft. Borehole Dia.: 3.5 in. Water Depth: 13 ft. Bedrock Depth: n/a ft. Sample Hammer: Automatic	
Contractor: Aztech Environmental Drill Rig: 3230DT Driller: Derek Fennell Inspector: Dean Anderson								

Depth (ft)	Elevation (ft)	Sample No.	SPT Blows	Recovery (in)	Groundwater	Group Symbol	Stratum Descriptions:	Field Notes, Comments:
1	285	SS-1	2	20		SP	Poorly Graded Sand (SP): Mostly fine Sand, trace Gravel, brown to grey, moist (Glaciofluvial Deposits)	3" Topsoil 6" Frost
2	284	SS-2	6	12		SP	Poorly Graded Sand (SP): Mostly fine Sand, tan/grey, moist	
3	283		7					
4	282	SS-3	8	18		SP	Poorly Graded Sand (SP): Mostly fine Sand, grey, moist	
5	281		8					
6	280	SS-4	8	18		SP	Poorly Graded Sand (SP): Mostly fine Sand, grey, moist	
7	279		6					
8	278	SS-5	4	16		SP	Poorly Graded Sand (SP): Mostly fine Sand, grey, moist	
9	277		3					
10	276		3					
11	275		4					
12	274							
13	273							
14	272							Approximate Sub-Stratum Change
15	271	SS-6	3	18		SM	Silty Sand (SM): Mostly fine Sand, little Silt, grey, saturated	
16	270		3					
17	269		3					
18	268							
19	267							
20	266	SS-7	2	24		SM	Silty Sand (SM): Mostly fine Sand, little Silt, grey, saturated	

METHODS: HA- Hollow Stem Auger, RWH- Rotary Wash, SSA- Solid Stem Auger, DC-Diamond Core, DP-Direct Push

SAMPLE TYPES: SS-Split Spoon, RC-Bedrock Core, GS-Geoprobe Sleeve, ST-Shelby Tube

STANDARD 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.

NOTES: 2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet.

3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.

ADDITIONAL

NOTES:

DRILLING INFORMATION		
Method: DP	0 to	25.0
Method:		
Type	SS	
Int Diam.	3.25	
Weight	140 lb	
Fall	30"	

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THE Chazen COMPANIES		547 River Street Troy, New York 12180 Phn: (518) 273-0055 Fax: (518) 273-8391		PROJECT: Rapp Road Residential Development LOCATION: Rapp Road Guilderland, NY CLIENT: Pyramid Management Group, LLC PROJECT NO.: 317Al.00		Test Boring No.: SB16 Total Depth: 27 ft.		
Depth (Ft)	Elevation (Ft)	Sample No.	SPT Blows	Recovery (in)	Groundwater	Group Symbol	Stratum Descriptions:	Field Notes, Comments:
21	265		3					
			3					
			4					
22	264							
23	263							
24	262							
25	261	SS-8	6	20		SM	Silty Sand (SM): Mostly fine Sand, little Silt, grey, saturated	
			7					
26	260		6					
			10					
27	259						Boring Terminated at 27 feet	
28	258							
29	257							
30	256							
31	255							
32	254							
33	253							
34	252							
35	251							
36	250							
37	249							
38	248							
39	247							
40	246							
41	245							
42	244							
43	243							
44	242							
45	241							
ADDITIONAL NOTES:								

TEST BORING LOG

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THE Chazen COMPANIES 547 River Street Troy, New York 12180 Phn: (518) 273-0055 Fax: (518) 273-8391		PROJECT: Rapp Road Residential Development LOCATION: Rapp Road Guilderland, NY CLIENT: Pyramid Management Group, LLC PROJECT NO.: 317Al.00		Test Boring No.: SB17 Total Depth: 17 ft.																				
Contractor: Aztech Environmental Drill Rig: 3230DT Driller: Derek Fennell Inspector: Dean Anderson		Start Date: 25-Jan-2018 Finish Date: 25-Jan-2018 El. Datum: NAVD-88 G.S. Elevation: 285.0	Northing: See Figure Easting: - Latitude: - Longitude: -	Borehole Dia.: 3.5 in. Water Depth: 11 ft. Bedrock Depth: n/a ft. Sample Hammer: Automatic																				
Depth (Ft)	Elevation (Ft)	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum Descriptions:	Field Notes, Comments:																
1	284	SS-1	2	18		SP	Poorly Graded Sand (SP): Mostly fine Sand, light brown, moist (Glaciofluvial Deposits)	6" Topsoil 8" Frost																
2	283		2																					
3	282																							
4	281																							
5	280	SS-2	4	24		SP	Poorly Graded Sand (SP): Mostly fine Sand, grey, moist																	
6	279		2																					
7	278		2																					
8	277		3																					
9	276							Approximate Sub-Stratum Change																
10	275	SS-3	2	20		SM	Poorly Graded Sand (SP): Mostly fine Sand, brown, moist to saturated																	
11	274		2																					
12	273		1																					
13	272																							
14	271																							
15	270	SS-4	2	24		SP-SM	Poorly Graded Sand w/ Silt (SP-SM): Mostly fine Sand, few Silt, brown, saturated																	
16	269		4																					
17	268		11																					
18	267		9																					
19	266						Boring Terminated at 17 feet																	
20	265																							
METHODS: HA- Hollow Stem Auger, RW- Rotary Wash, SSA- Solid Stem Auger, DC-Diamond Core, DP-Direct Push SAMPLE TYPES: SS-Split Spoon, RC-Bedrock Core, GS-Geoprobe Sleeve, ST-Shelby Tube STANDARD 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted. NOTES: 2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet. 3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.								DRILLING INFORMATION Method: DP 0 to 15.0 Method: <table border="1"> <thead> <tr> <th></th> <th>Sample</th> <th>Core</th> </tr> </thead> <tbody> <tr> <td>Type</td> <td>SS</td> <td></td> </tr> <tr> <td>Int Diam.</td> <td>3.25</td> <td></td> </tr> <tr> <td>Weight</td> <td>140 lb</td> <td></td> </tr> <tr> <td>Fall</td> <td>30"</td> <td></td> </tr> </tbody> </table>			Sample	Core	Type	SS		Int Diam.	3.25		Weight	140 lb		Fall	30"	
	Sample	Core																						
Type	SS																							
Int Diam.	3.25																							
Weight	140 lb																							
Fall	30"																							
ADDITIONAL NOTES:																								

TEST BORING LOG

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THE Chazen COMPANIES		547 River Street Troy, New York 12180 Phn: (518) 273-0055 Fax: (518) 273-8391		PROJECT: Rapp Road Residential Development LOCATION: Rapp Road Guilderland, NY CLIENT: Pyramid Management Group, LLC PROJECT NO.: 317Al.00		Test Boring No.: SB18 Total Depth: 27 ft.	
Contractor: Aztech Environmental Drill Rig: 3230DT Driller: Derek Fennell Inspector: Dean Anderson				Start Date: 25-Jan-2018 Finish Date: 25-Jan-2018 El. Datum: NAVD-88 G.S. Elevation: 287.0		Northing: See Figure Easting: Latitude: - Longitude: -	
Borehole Dia.: 3.5 in. Water Depth: 12 ft. Bedrock Depth: n/a ft. Sample Hammer: Automatic							

Depth (Ft)	Elevation (Ft)	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum Descriptions:	Field Notes, Comments:
1	286	SS-1	2	12		SP	Poorly Graded Sand (SP): Mostly fine Sand, brown, moist	2" Topsoil 3" Frost
2	285		2					
3	284		2					
4	283		3					
5	282	SS-2	6	18		SP	Poorly Graded Sand (SP): Mostly fine Sand, light brown/orange, moist	
6	281		6					
7	280		7					
8	279		8					
9	278							
10	277	SS-3	5	20		SP	Poorly Graded Sand (SP): Mostly fine Sand, light brown, moist to saturated	
11	276		4					
12	275		4					
13	274		3					
14	273							
15	272	SS-4	1	14		SP	Poorly Graded Sand (SP): Mostly fine Sand, brown/grey, saturated	
16	271		1					
17	270		2					
18	269		3					
19	268							Approximate Sub-Stratum Change
20	267	SS-5	7	18		SM	Silty Sand (SM): Mostly fine Sand, little Silt, brown, saturated	

METHODS: HA- Hollow Stem Auger, RW- Rotary Wash, SSA- Solid Stem Auger, DC-Diamond Core, DP-Direct Push		DRILLING INFORMATION	
SAMPLE TYPES: SS-Split Spoon, RC-Bedrock Core, GS-Geoprobe Sleeve, ST-Shelby Tube		Method: DP	0 to 25.0
STANDARD 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.		Method:	
NOTES: 2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet. 3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.		Sample	Core
ADDITIONAL NOTES:		Type	SS
		Int Diam.	3.25
		Weight	140 lb
		Fall	30"

TEST BORING LOG

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THE Chazen COMPANIES		547 River Street Troy, New York 12180 Phn: (518) 273-0055 Fax: (518) 273-8391		PROJECT: Rapp Road Residential Development LOCATION: Rapp Road Guilderland, NY CLIENT: Pyramid Management Group, LLC PROJECT NO.: 317Al.00		Test Boring No.: SB18 Total Depth: 27 ft.		
Depth (Ft)	Elevation (Ft)	Sample No.	SPT Blows	Recovery (in)	Groundwater	Group Symbol	Stratum Descriptions:	Field Notes, Comments:
21	266		7					
			7					
22	265		7					
23	264							
24	263							
25	262	SS-6	3	20		SM	Silty Sand (SM): Mostly fine Sand, little Silt, brown, saturated	
			3					
26	261		6					
			8					
27	260						Boring Terminated at 27 feet	
28	259							
29	258							
30	257							
31	256							
32	255							
33	254							
34	253							
35	252							
36	251							
37	250							
38	249							
39	248							
40	247							
41	246							
42	245							
43	244							
44	243							
45	242							
ADDITIONAL NOTES:								

TEST BORING LOG

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THE Chazen COMPANIES		547 River Street Troy, New York 12180 Phn: (518) 273-0055 Fax: (518) 273-8391		PROJECT: Rapp Road Residential Development LOCATION: Rapp Road Guilderland, NY CLIENT: Pyramid Management Group, LLC PROJECT NO.: 317Al.00		Test Boring No.: SB19 Total Depth: 27 ft.	
Contractor: Aztech Environmental Drill Rig: 3230DT Driller: Derek Fennell Inspector: Dean Anderson				Start Date: 25-Jan-2018 Finish Date: 25-Jan-2018 El. Datum: NAVD-88 G.S. Elevation: 287.0		Northing: See Figure Easting: Latitude: - Longitude: -	
Borehole Dia.: 3.5 in. Water Depth: 13 ft. Bedrock Depth: n/a ft. Sample Hammer: Automatic							

Depth (Ft)	Elevation (Ft)	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum Descriptions:	Field Notes, Comments:
1	286	SS-1	1	20		SP	Poorly Graded Sand (SP): Mostly fine Sand, brown, moist	2" Topsoil 3" Frost
2	285		1					
3	284							
4	283							
5	282	SS-2	8	16		SP	Poorly Graded Sand (SP): Mostly fine Sand, brown, moist	
6	281		5					
7	280		6					
8	279		7					
9	278							
10	277	SS-3	2	16		SP	Poorly Graded Sand (SP): Mostly fine Sand, brown/orange, moist	
11	276		2					
12	275		3					
13	274		3					
14	273							
15	272	SS-4	3	20		SP	Poorly Graded Sand (SP): Mostly fine Sand, brown, saturated	
16	271		3					
17	270		4					
18	269		3					
19	268							
20	267	SS-5	2	24		SP	Poorly Graded Sand (SP): Mostly fine Sand, brown, saturated	

METHODS: HA- Hollow Stem Auger, RW- Rotary Wash, SSA- Solid Stem Auger, DC-Diamond Core, DP-Direct Push SAMPLE TYPES: SS-Split Spoon, RC-Bedrock Core, GS-Geoprobe Sleeve, ST-Shelby Tube STANDARD 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted. NOTES: 2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet. 3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.		DRILLING INFORMATION Method: DP 0 to 25.0 Method:																
ADDITIONAL NOTES:		<table border="1"> <thead> <tr> <th></th> <th>Sample</th> <th>Core</th> </tr> </thead> <tbody> <tr> <td>Type</td> <td>SS</td> <td></td> </tr> <tr> <td>Int Diam.</td> <td>3.25</td> <td></td> </tr> <tr> <td>Weight</td> <td>140 lb</td> <td></td> </tr> <tr> <td>Fall</td> <td>30"</td> <td></td> </tr> </tbody> </table>			Sample	Core	Type	SS		Int Diam.	3.25		Weight	140 lb		Fall	30"	
	Sample	Core																
Type	SS																	
Int Diam.	3.25																	
Weight	140 lb																	
Fall	30"																	

TEST BORING LOG

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THE Chazen COMPANIES		547 River Street Troy, New York 12180 Phn: (518) 273-0055 Fax: (518) 273-8391		PROJECT: Rapp Road Residential Development LOCATION: Rapp Road Guilderland, NY CLIENT: Pyramid Management Group, LLC PROJECT NO.: 317Al.00		Test Boring No.: SB19 Total Depth: 27 ft.		
Depth (Ft)	Elevation (Ft)	Sample No.	SPT Blows	Recovery (in)	Groundwater	Group Symbol	Stratum Descriptions:	Field Notes, Comments:
21	266		2					
			2					
			4					
22	265							
23	264							
24	263							
25	262	SS-6	2	24		SP	Poorly Graded Sand (SP): Mostly fine Sand, grey/brown, saturated	
			2					
26	261		2					
			4					
27	260						Boring Terminated at 27 feet	
28	259							
29	258							
30	257							
31	256							
32	255							
33	254							
34	253							
35	252							
36	251							
37	250							
38	249							
39	248							
40	247							
41	246							
42	245							
43	244							
44	243							
45	242							
ADDITIONAL NOTES:								

TEST BORING LOG

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THE Chazen COMPANIES		547 River Street Troy, New York 12180 Phn: (518) 273-0055 Fax: (518) 273-8391		PROJECT: Rapp Road Residential Development LOCATION: Rapp Road Guilderland, NY CLIENT: Pyramid Management Group, LLC PROJECT NO.: 317AI.00		Test Boring No.: SB20 Total Depth: 17 ft.	
Contractor: Aztech Environmental Drill Rig: 3230DT Driller: Derek Fennell Inspector: Dean Anderson				Start Date: 26-Jan-2018 Finish Date: 26-Jan-2018 El. Datum: NAVD-88 G.S. Elevation: 290.5		Northing: See Figure Easting: Latitude: - Longitude: -	
Borehole Dia.: 3.5 in. Water Depth: 13 ft. Bedrock Depth: n/a ft. Sample Hammer: Automatic							

Depth (Ft)	Elevation (Ft)	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum Descriptions:	Field Notes, Comments:
1	289.5	SS-1	2	16		SP	Poorly Graded Sand (SP): Mostly fine Sand, brown to orange, moist (Glaciofluvial Deposits)	6" Topsoil 6" Frost
2	288.5		1					
3	287.5		2					
4	286.5							
5	285.5	SS-2	4	18		SP	Poorly Graded Sand (SP): Mostly fine Sand, grey/orange, moist	
6	284.5		5					
7	283.5		5					
8	282.5		6					
9	281.5							
10	280.5	SS-3	4			SP	Poorly Graded Sand (SP): Mostly fine Sand, grey/brown, moist	
11	279.5		3					
12	278.5		3					
13	277.5		4					
14	276.5							
15	275.5	SS-4	1			SP	Poorly Graded Sand (SP): Mostly fine Sand, brown, saturated	
16	274.5		1					
17	273.5		1					
18	272.5						Boring Terminated at 15 feet	
19	271.5							
20	270.5							

METHODS: HA- Hollow Stem Auger, RWH- Rotary Wash, SSA- Solid Stem Auger, DC-Diamond Core, DP-Direct Push SAMPLE TYPES: SS-Split Spoon, RC-Bedrock Core, GS-Geoprobe Sleeve, ST-Shelby Tube STANDARD 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted. NOTES: 2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet. 3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.		DRILLING INFORMATION Method: DP 0 to 15.0 Method: <table border="1"> <thead> <tr> <th></th> <th>Sample</th> <th>Core</th> </tr> </thead> <tbody> <tr> <td>Type</td> <td>SS</td> <td></td> </tr> <tr> <td>Int Diam.</td> <td>3.25</td> <td></td> </tr> <tr> <td>Weight</td> <td>140 lb</td> <td></td> </tr> <tr> <td>Fall</td> <td>30"</td> <td></td> </tr> </tbody> </table>			Sample	Core	Type	SS		Int Diam.	3.25		Weight	140 lb		Fall	30"	
	Sample	Core																
Type	SS																	
Int Diam.	3.25																	
Weight	140 lb																	
Fall	30"																	

TEST BORING LOG

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THE Chazen COMPANIES		547 River Street Troy, New York 12180 Phn: (518) 273-0055 Fax: (518) 273-8391		PROJECT: Rapp Road Residential Development LOCATION: Rapp Road Guilderland, NY CLIENT: Pyramid Management Group, LLC PROJECT NO.: 317Al.00		Test Boring No.: SB21 Total Depth: 17 ft.	
Contractor: Aztech Environmental Drill Rig: 3230DT Driller: Derek Fennell Inspector: Dean Anderson				Start Date: 26-Jan-2018 Finish Date: 26-Jan-2018 El. Datum: NAVD-88 G.S. Elevation: 293.0		Northing: See Figure Easting: Latitude: - Longitude: -	
Borehole Dia.: 3.5 in. Water Depth: 16 ft. Bedrock Depth: n/a ft. Sample Hammer: Automatic							

Depth (Ft)	Elevation (Ft)	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum Descriptions:	Field Notes, Comments:
1	292	SS-1	9	18		SP	Poorly Graded Sand (SP): Mostly fine Sand, orange, moist (Glaciofluvial Deposits)	6" Topsoil 8" Frost
2	291		5					
3	290		6					
4	289		5					
5	288	SS-2	5	18		SP	Poorly Graded Sand (SP): Mostly fine Sand, orange, moist	
6	287		5					
7	286		4					
8	285		4					
9	284							
10	283	SS-3	6	18		SP	Poorly Graded Sand (SP): Mostly fine Sand, brown/grey, moist	
11	282		5					
12	281		5					
13	280							
14	279							
15	278	SS-4	3	18		SP	Poorly Graded Sand (SP): Mostly fine Sand, brown/orange, moist to saturated	
16	277		2					
17	276		4					
18	275		2					
19	274						Boring Terminated at 17 feet	
20	273							

METHODS: HA- Hollow Stem Auger, RW- Rotary Wash, SSA- Solid Stem Auger, DC-Diamond Core, DP-Direct Push SAMPLE TYPES: SS-Split Spoon, RC-Bedrock Core, GS-Geoprobe Sleeve, ST-Shelby Tube STANDARD 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted. NOTES: 2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet. 3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.		DRILLING INFORMATION Method: DP 0 to 15.0 Method:	
ADDITIONAL NOTES:		Sample Type SS Int Diam. 3.25 Weight 140 lb Fall 30"	Core

TEST BORING LOG

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THE Chazen COMPANIES		547 River Street Troy, New York 12180 Phn: (518) 273-0055 Fax: (518) 273-8391		PROJECT: Rapp Road Residential Development LOCATION: Rapp Road Guilderland, NY CLIENT: Pyramid Management Group, LLC PROJECT NO.: 317Al.00		Test Boring No.: SB22 Total Depth: 17 ft.	
Contractor: Aztech Environmental Drill Rig: 3230DT Driller: Derek Fennell Inspector: Dean Anderson				Start Date: 26-Jan-2018 Finish Date: 26-Jan-2018 El. Datum: NAVD-88 G.S. Elevation: 291.0		Northing: See Figure Easting: Latitude: - Longitude: -	
Borehole Dia.: 3.5 in. Water Depth: 13 ft. Bedrock Depth: n/a ft. Sample Hammer: Automatic							

Depth (Ft)	Elevation (Ft)	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum Descriptions:	Field Notes, Comments:
1	290	SS-1	2	18		SP	Poorly Graded Sand (SP): Mostly fine Sand, brown/orange, moist (Glaciofluvial Deposits)	6" Topsoil 6" Frost
2	289		3					
3	288		3					
4	287							
5	286	SS-2	5	18		SP	Poorly Graded Sand (SP): Mostly fine Sand, brown/orange, moist	
6	285		5					
7	284		7					
8	283							
9	282							
10	281	SS-3	6	20		SP	Poorly Graded Sand (SP): Mostly fine Sand, brown/orange, moist	
11	280		4					
12	279		5					
13	278		6					
14	277							
15	276	SS-4	2	20		SP	Poorly Graded Sand (SP): Mostly fine Sand, brown/orange, moist	
16	275		1					
17	274		2					
18	273		1					
19	272						Boring Terminated at 17 feet	
20	271							

METHODS: HA- Hollow Stem Auger, RW- Rotary Wash, SSA- Solid Stem Auger, DC-Diamond Core, DP-Direct Push SAMPLE TYPES: SS-Split Spoon, RC-Bedrock Core, GS-Geoprobe Sleeve, ST-Shelby Tube STANDARD 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted. NOTES: 2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet. 3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.		DRILLING INFORMATION Method: DP 0 to 15.0 Method: Sample Core Type SS Int Diam. 3.25 Weight 140 lb Fall 30"	
ADDITIONAL NOTES:			

TEST BORING LOG

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THE Chazen COMPANIES 547 River Street Troy, New York 12180 Phn: (518) 273-0055 Fax: (518) 273-8391		PROJECT: Rapp Road Residential Development LOCATION: Rapp Road Guilderland, NY CLIENT: Pyramid Management Group, LLC PROJECT NO.: 317Al.00		Test Boring No.: SB23 Total Depth: 17 ft.					
Contractor: Aztech Environmental Drill Rig: 3230DT Driller: Derek Fennell Inspector: Dean Anderson		Start Date: 26-Jan-2018 Finish Date: 26-Jan-2018 El. Datum: NAVD-88 G.S. Elevation: 289.5	Northing: See Figure Easting: - Latitude: - Longitude: -	Borehole Dia.: 3.5 in. Water Depth: 13 ft. Bedrock Depth: n/a ft. Sample Hammer: Automatic					
Depth (Ft)	Elevation (Ft)	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum Descriptions:	Field Notes, Comments:	
1	288.5	SS-1	2	14		SP	Poorly Graded Sand (SP): Mostly fine Sand, orange, moist (Glaciofluvial Deposits)	4" Topsoil 8" Frost	
2	287.5		2						
3	286.5		1						
4	285.5								
5	284.5	SS-2	7	14		SP	Poorly Graded Sand (SP): Mostly fine Sand, grey, moist		
6	283.5		11						
7	282.5		7						
8	281.5		9						
9	280.5								
10	279.5	SS-3	3	24		SP	Poorly Graded Sand (SP): Mostly fine Sand, brown/orange, wet		
11	278.5		1						
12	277.5		2						
13	276.5								
14	275.5								
15	274.5	SS-4	1	20		SP	Poorly Graded Sand (SP): Mostly fine Sand, brown, saturated		
16	273.5		3						
17	272.5		3						
18	271.5		4						
19	270.5						Boring Terminated at 17 feet		
20	269.5								
METHODS: HA- Hollow Stem Auger, RW- Rotary Wash, SSA- Solid Stem Auger, DC-Diamond Core, DP-Direct Push SAMPLE TYPES: SS-Split Spoon, RC-Bedrock Core, GS-Geoprobe Sleeve, ST-Shelby Tube STANDARD 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted. NOTES: 2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet. 3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.								DRILLING INFORMATION Method: DP 0 to 15.0 Method: Sample Core Type SS Int Diam. 3.25 Weight 140 lb Fall 30"	
ADDITIONAL NOTES:									

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		547 River Street Troy, New York 12180 Phn: (518) 273-0055 Fax: (518) 273-8391		PROJECT: Rapp Road Residential Development LOCATION: Rapp Road Guilderland, NY CLIENT: Pyramid Management Group, LLC PROJECT NO.: 317AI.00		Test Boring No.: SB24																		
Contractor: Aztech Environmental Drill Rig: 3230DT Driller: Derek Fennell Inspector: Dean Anderson		Start Date: 26-Jan-2018 Finish Date: 26-Jan-2018 El. Datum: NAVD-88 G.S. Elevation: 304.5		Northing: See Figure Easting: - Latitude: - Longitude: -		Total Depth: 27 ft. Borehole Dia.: 3.5 in. Water Depth: n/a ft. Bedrock Depth: n/a ft. Sample Hammer: Automatic																		
Depth (Ft)	Elevation (Ft)	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum Descriptions:	Field Notes, Comments:																
1	303.5	SS-1	6	18		SP	Poorly Graded Sand w/ Gravel (SP): Mostly Sand, little Gravel, trace Silt, brown, moist (Fill)	4" Topsoil 4" Frost 3" Asphalt seam at 12" 3" Asphalt seam at 20"																
2	302.5		7																					
3	301.5		6																					
4	300.5							Approximate Strata Change																
5	299.5	SS-2	5	18		SP	Poorly Graded Sand (SP): Mostly fine Sand, orange/brown, moist	Location on a large mound																
6	298.5		4																					
7	297.5		4																					
8	296.5		3																					
9	295.5																							
10	294.5	SS-3	1	18		SP	Poorly Graded Sand (SP): Mostly fine Sand, orange/brown, moist																	
11	293.5		1																					
12	292.5		5																					
13	291.5		2																					
14	290.5																							
15	289.5	SS-4	4	18		SP	Poorly Graded Sand (SP): Mostly fine Sand, orange/brown, moist																	
16	288.5		6																					
17	287.5		9																					
18	286.5		11																					
19	285.5																							
20	284.5	SS-5	3	20		SP	Poorly Graded Sand (SP): Mostly fine Sand, brown/grey, moist																	
METHODS: HA- Hollow Stem Auger, RWH- Rotary Wash, SSA- Solid Stem Auger, DC- Diamond Core, DP- Direct Push SAMPLE TYPES: SS-Split Spoon, RC-Bedrock Core, GS-Geoprobe Sleeve, ST-Shelby Tube STANDARD 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted. NOTES: 2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet. 3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.								DRILLING INFORMATION Method: DP 0 to 25.0 Method: <table border="1"> <thead> <tr> <th></th> <th>Sample</th> <th>Core</th> </tr> </thead> <tbody> <tr> <td>Type</td> <td>SS</td> <td></td> </tr> <tr> <td>Int Diam.</td> <td>3.25</td> <td></td> </tr> <tr> <td>Weight</td> <td>140 lb</td> <td></td> </tr> <tr> <td>Fall</td> <td>30"</td> <td></td> </tr> </tbody> </table>			Sample	Core	Type	SS		Int Diam.	3.25		Weight	140 lb		Fall	30"	
	Sample	Core																						
Type	SS																							
Int Diam.	3.25																							
Weight	140 lb																							
Fall	30"																							
ADDITIONAL NOTES:																								

TEST BORING LOG

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THE <i>Chazen</i> COMPANIES		547 River Street Troy, New York 12180 Phn: (518) 273-0055 Fax: (518) 273-8391		PROJECT: Rapp Road Residential Development LOCATION: Rapp Road Guilderland, NY CLIENT: Pyramid Management Group, LLC PROJECT NO.: 317Al.00		Test Boring No.: SB24 Total Depth: 27 ft.		
Depth (Ft)	Elevation (Ft)	Sample No.	SPT Blows	Recovery (in)	Groundwater	Group Symbol	Stratum Descriptions:	Field Notes, Comments:
21	283.5		3					
			5					
22	282.5		6					
23	281.5							
24	280.5							
25	279.5	SS-6	3	24		SP	Poorly Graded Sand (SP): Mostly fine Sand, brown, moist	
26	278.5		4					
			4					
27	277.5		5					
							Boring Terminated at 27 feet	
28	276.5							
29	275.5							
30	274.5							
31	273.5							
32	272.5							
33	271.5							
34	270.5							
35	269.5							
36	268.5							
37	267.5							
38	266.5							
39	265.5							
40	264.5							
41	263.5							
42	262.5							
43	261.5							
44	260.5							
45	259.5							
ADDITIONAL NOTES:								

TEST BORING LOG

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THE Chazen COMPANIES		547 River Street Troy, New York 12180 Phn: (518) 273-0055 Fax: (518) 273-8391		PROJECT: Rapp Road Residential Development LOCATION: Rapp Road Guilderland, NY CLIENT: Pyramid Management Group, LLC PROJECT NO.: 317Al.00			Test Boring No.: SB25	
Contractor: Aztech Environmental Drill Rig: 3230DT Driller: Derek Fennell Inspector: Dean Anderson				Start Date: 26-Jan-2018 Finish Date: 26-Jan-2018 El. Datum: NAVD-88 G.S. Elevation: 288.0		Northing: See Figure Easting: Latitude: - Longitude: -		Total Depth: 17 ft. Borehole Dia.: 3.5 in. Water Depth: 11 ft. Bedrock Depth: n/a ft. Sample Hammer: Automatic
Depth (Ft)	Elevation (Ft)	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum Descriptions:	Field Notes, Comments:
1	287	SS-1	2	14		SP	Poorly Graded Sand (SP): Mostly fine Sand, brown, moist (Glaciofluvial Deposits)	4" Topsoil 4" Frost
2	286		3					
3	285		2					
4	284							
5	283	SS-2	15	16		SP	Poorly Graded Sand (SP): Mostly fine Sand, orange/grey, moist	
6	282		11					
7	281		13					
8	280		15					
9	279							
10	278	SS-3	6	16		SP	Poorly Graded Sand (SP): Mostly fine Sand, brown, saturated	
11	277		6					
12	276		7					
13	275		8					
14	274							Approximate Sub-Stratum Change
15	273	SS-4	12	20		SM	Silty Sand (SM): Mostly fine Sand, little Silt, brown, saturated	
16	272		12					
17	271		11					
18	270						Boring Terminated at 17 feet	
19	269							
20	268							
METHODS: HA- Hollow Stem Auger, RW- Rotary Wash, SSA- Solid Stem Auger, DC-Diamond Core, DP-Direct Push SAMPLE TYPES: SS-Split Spoon, RC-Bedrock Core, GS-Geoprobe Sleeve, ST-Shelby Tube STANDARD 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted. NOTES: 2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet. 3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.							DRILLING INFORMATION Method: DP 0 to 15.0 Method: Sample Core Type SS Int Diam. 3.25 Weight 140 lb Fall 30"	
ADDITIONAL NOTES:								

TEST BORING LOG

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THE Chazen COMPANIES		547 River Street Troy, New York 12180 Phn: (518) 273-0055 Fax: (518) 273-8391		PROJECT: Rapp Road Residential Development LOCATION: Rapp Road Guilderland, NY CLIENT: Pyramid Management Group, LLC PROJECT NO.: 317AI.00		Test Boring No.: SB26 Total Depth: 27 ft.	
Contractor: Aztech Environmental Drill Rig: 3230DT Driller: Derek Fennell Inspector: Dean Anderson				Start Date: 26-Jan-2018 Finish Date: 26-Jan-2018 El. Datum: NAVD-88 G.S. Elevation: 293.0		Northing: See Figure Easting: Latitude: - Longitude: -	
Borehole Dia.: 3.5 in. Water Depth: 14 ft. Bedrock Depth: n/a ft. Sample Hammer: Automatic							

Depth (Ft)	Elevation (Ft)	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum Descriptions:	Field Notes, Comments:
1	292	SS-1	8	16		SP	Poorly Graded Sand (SP): Mostly fine Sand, brown, moist (Fill)	4" Topsoil 8" Frost
2	291		2					
			1					
3	290						(Glaciofluvial Deposits)	Approximate Strata Change
4	289							
5	288	SS-2	4	24		SP	Poorly Graded Sand (SP): Mostly Sand, brown to orange, moist	
6	287		2					
			3					
7	286		4					
8	285							
9	284							
10	283	SS-3	5	24		SP	Poorly Graded Sand (SP): Mostly Sand, brown/grey, moist	
11	282		4					
12	281		5					
			6					
13	280							
14	279							
15	278	SS-4	8	24		SP	Poorly Graded Sand (SP): Mostly Sand, little Silt, brown/grey, saturated	
16	277		10					
			12					
17	276		10					
18	275							
19	274							Approximate Sub-Stratum Change
20	273	SS-5	15	24		SM	Silty Sand (SM): Mostly Sand, little Silt, brown/grey, saturated	

METHODS: HA- Hollow Stem Auger, RW- Rotary Wash, SSA- Solid Stem Auger, DC-Diamond Core, DP-Direct Push		DRILLING INFORMATION	
SAMPLE TYPES: SS-Split Spoon, RC-Bedrock Core, GS-Geoprobe Sleeve, ST-Shelby Tube		Method: DP	0 to 25.0
STANDARD 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.		Method:	
NOTES: 2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet. 3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.			
ADDITIONAL NOTES:		Type	SS
		Int Diam.	3.25
		Weight	140 lb
		Fall	30"

TEST BORING LOG

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		547 River Street Troy, New York 12180 Phn: (518) 273-0055 Fax: (518) 273-8391		PROJECT: Rapp Road Residential Development LOCATION: Rapp Road Guilderland, NY CLIENT: Pyramid Management Group, LLC PROJECT NO.: 317Al.00		Test Boring No.: SB26 Total Depth: 27 ft.		
Depth (Ft)	Elevation (Ft)	Sample No.	SPT Blows	Recovery (in)	Groundwater	Group Symbol	Stratum Descriptions:	Field Notes, Comments:
21	272		17					
			18					
22	271	SS-6	32	22		SM	Silty Sand (SM): Mostly Sand, little Silt, brown/grey, saturated	Casing refusal at 22 feet
23	270		34					
			22					
24	269		23				Boring Terminated at 24 feet	
25	268							
26	267							
27	266							
28	265							
29	264							
30	263							
31	262							
32	261							
33	260							
34	259							
35	258							
36	257							
37	256							
38	255							
39	254							
40	253							
41	252							
42	251							
43	250							
44	249							
45	248							
ADDITIONAL NOTES:								

TEST BORING LOG

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THE Chazen COMPANIES		547 River Street Troy, New York 12180 Phn: (518) 273-0055 Fax: (518) 273-8391		PROJECT: Rapp Road Residential Development LOCATION: Rapp Road Guilderland, NY CLIENT: Pyramid Management Group, LLC PROJECT NO.: 317AI.00		Test Boring No.: SB27 Total Depth: 27 ft.			
Contractor: Aztech Environmental Drill Rig: 3230DT Driller: Derek Fennell Inspector: Dean Anderson				Start Date: 29-Jan-2018 Finish Date: 29-Jan-2018 El. Datum: NAVD-88 G.S. Elevation: 292.5		Northing: See Figure Easting: Latitude: - Longitude: -			
Borehole Dia.: 3.5 in. Water Depth: 15 ft. Bedrock Depth: n/a ft. Sample Hammer: Automatic									
Depth (Ft)	Elevation (Ft)	Sample No.	SPT Blows	Recovery (in)	Groundwater	Group Symbol	Stratum Descriptions:	Field Notes, Comments:	
1	291.5	SS-1	2	20		SP	Poorly Graded Sand w/ Gravel (SP): Mostly fine Sand, little Gravel, brown, moist (Fill)	3" Topsoil 6" Frost 3" Asphalt seam at 18"	
2	290.5		3						
			10						
3	289.5		12					Approximate Strata Change	
4	288.5						(Glaciofluvial Deposits)		
5	287.5								
6	286.5	SS-2	6	18		SP	Poorly Graded Sand (SP): Mostly fine Sand, yellow, moist-dry		
7	285.5		6						
			8						
			10						
8	284.5							Approximate Sub-Stratum Change	
9	283.5								
10	282.5	SS-3	5	24		SM	Silty Sand (SM): Mostly fine Sand, little Silt, brown/grey to yellow, moist		
11	281.5		2						
			3						
12	280.5		4						
13	279.5								
14	278.5								
15	277.5	SS-4	12	18		SM	Silty Sand (SM): Mostly fine Sand, little Silt, brown, saturated		
16	276.5		9						
			7						
			8						
17	275.5								
18	274.5							Approximate Sub-Stratum Change	
19	273.5								
20	272.5	SS-5	7	24		SP	Poorly Graded Sand (SP): Mostly fine Sand, brown, saturated		
METHODS: HA- Hollow Stem Auger, RW- Rotary Wash, SSA- Solid Stem Auger, DC-Diamond Core, DP-Direct Push SAMPLE TYPES: SS-Split Spoon, RC-Bedrock Core, GS-Geoprobe Sleeve, ST-Shelby Tube STANDARD: 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted. NOTES: 2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet. 3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.								DRILLING INFORMATION Method: DP 0 to 25.0 Method: Sample Core Type SS Int Diam. 3.25 Weight 140 lb Fall 30"	
ADDITIONAL NOTES:									

TEST BORING LOG

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THE <i>Chazen</i> COMPANIES		547 River Street Troy, New York 12180 Phn: (518) 273-0055 Fax: (518) 273-8391		PROJECT: Rapp Road Residential Development LOCATION: Rapp Road Guilderland, NY CLIENT: Pyramid Management Group, LLC PROJECT NO.: 317Al.00		Test Boring No.: SB27 Total Depth: 27 ft.		
Depth (Ft)	Elevation (Ft)	Sample No.	SPT Blows	Recovery (in)	Groundwater	Group Symbol	Stratum Descriptions:	Field Notes, Comments:
21	271.5		3					
			4					
22	270.5		5					
23	269.5							
24	268.5							
25	267.5	SS-6	3	24		SP-SM	Poorly Graded Sand w/ Silt (SP-SM): Mostly fine Sand, few Silt, brown, saturated	
26	266.5		4					
			6					
27	265.5		8				Boring Terminated at 27 feet	
28	264.5							
29	263.5							
30	262.5							
31	261.5							
32	260.5							
33	259.5							
34	258.5							
35	257.5							
36	256.5							
37	255.5							
38	254.5							
39	253.5							
40	252.5							
41	251.5							
42	250.5							
43	249.5							
44	248.5							
45	247.5							
ADDITIONAL NOTES:								

TEST BORING LOG

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THE Chazen COMPANIES 547 River Street Troy, New York 12180 Phn: (518) 273-0055 Fax: (518) 273-8391		PROJECT: Rapp Road Residential Development LOCATION: Rapp Road Guilderland, NY CLIENT: Pyramid Management Group, LLC PROJECT NO.: 317AI.00		Test Boring No.: SB28 Total Depth: 17 ft.				
Contractor: Aztech Environmental Drill Rig: 3230DT Driller: Derek Fennell Inspector: Dean Anderson		Start Date: 29-Jan-2018 Finish Date: 29-Jan-2018 El. Datum: NAVD-88 G.S. Elevation: 287.0	Northing: See Figure Easting: - Latitude: - Longitude: -	Borehole Dia.: 3.5 in. Water Depth: 11.5 ft. Bedrock Depth: n/a ft. Sample Hammer: Automatic				
Depth (Ft)	Elevation (Ft)	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum Descriptions:	Field Notes, Comments:
1	286	SS-1	10	24		SP	Poorly Graded Sand w/ Gravel (SP): Mostly fine Sand, little Gravel, occasional cobble, brown, moist (Fill)	6" Topsoil 6" Frost
			20					
			21			GP	(14" to 18") Poorly Graded Gravel w/ Sand (GW): Mostly Gravel, some Sand, occasional cobble, brown, moist (Fill)	
2	285		16				(18" to 20") 3" Asphalt seam	
							(20" to 24") Poorly Graded Sand w/ Gravel (SP): Mostly Sand, little Gravel, trace Silt, brown, moist (Fill)	Approximate Strata Change
3	284					SP		
4	283							
5	282	SS-2	4	24		SP	Poorly Graded Sand (SP): Mostly fine Sand, yellow to grey, moist (Glaciofluvial Deposits)	
6	281		4					
			4					
7	280		6					
8	279							
9	278							
10	277	SS-3	2	18		SP	Poorly Graded Sand (SP): Mostly fine Sand, brown, saturated	
			1					
11	276		1					
			1					
12	275							
13	274							
14	273							Approximate Sub-Stratum Change
15	272	SS-4	4	18		SM	Silty Sand (SM): Mostly fine Sand, little Silt, brown, saturated	
16	271		4					
			6					
17	270		6					
							Boring Terminated at 17 feet	
18	269							
19	268							
20	267							
METHODS: HA- Hollow Stem Auger, RWH- Rotary Wash, SSA- Solid Stem Auger, DC-Diamond Core, DP-Direct Push SAMPLE TYPES: SS-Split Spoon, RC-Bedrock Core, GS-Geoprobe Sleeve, ST-Shelby Tube STANDARD 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted. NOTES: 2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet. 3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.							DRILLING INFORMATION Method: DP 0 to 15.0 Method: Sample Core Type SS Int Diam. 3.25 Weight 140 lb Fall 30"	
ADDITIONAL NOTES:								

TEST BORING LOG

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THE Chazen COMPANIES		547 River Street Troy, New York 12180 Phn: (518) 273-0055 Fax: (518) 273-8391		PROJECT: Rapp Road Residential Development LOCATION: Rapp Road Guilderland, NY CLIENT: Pyramid Management Group, LLC PROJECT NO.: 317Al.00		Test Boring No.: SB29 Total Depth: 17 ft.	
Contractor: Aztech Environmental Drill Rig: 3230DT Driller: Derek Fennell Inspector: Dean Anderson				Start Date: 29-Jan-2018 Finish Date: 29-Jan-2018 El. Datum: NAVD-88 G.S. Elevation: 286.0		Northing: See Figure Easting: Latitude: - Longitude: -	
Borehole Dia.: 3.5 in. Water Depth: 10 ft. Bedrock Depth: n/a ft. Sample Hammer: Automatic							

Depth (Ft)	Elevation (Ft)	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum Descriptions:	Field Notes, Comments:
1	285	SS-1	1	18		SP	Poorly Graded Sand (SP): Mostly fine Sand, trace plastic, light brown, moist (Fill)	6" Topsoil 3" frost
2	284		1					
3	283							Approximate Strata Change
4	282							
5	281	SS-2	8	24		SP	Poorly Graded Sand (SP): Mostly fine Sand, light brown to grey, moist	
6	280		9					
7	279		10					
8	278							
9	277							
10	276	SS-3	2	24		SP	Poorly Graded Sand (SP): Mostly fine Sand, light brown, saturated (Glaciofluvial Deposits)	
11	275		1					
12	274							
13	273							
14	272							
15	271	SS-4	4	20		SP	Poorly Graded Sand (SP): Mostly fine Sand, light brown, saturated	
16	270		3					
17	269		2					
18	268		4					
19	267						Boring Terminated at 17 feet	
20	266							

METHODS: HA- Hollow Stem Auger, RW- Rotary Wash, SSA- Solid Stem Auger, DC-Diamond Core, DP-Direct Push SAMPLE TYPES: SS-Split Spoon, RC-Bedrock Core, GS-Geoprobe Sleeve, ST-Shelby Tube STANDARD 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted. NOTES: 2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet. 3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.		DRILLING INFORMATION Method: DP 0 to 15.0 Method: Sample Core Type SS Int Diam. 3.25 Weight 140 lb Fall 30"	
ADDITIONAL NOTES:			

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THE Chazen COMPANIES 547 River Street Troy, New York 12180 Phn: (518) 273-0055 Fax: (518) 273-8391		PROJECT: Rapp Road Residential Development LOCATION: Rapp Road Guilderland, NY CLIENT: Pyramid Management Group, LLC PROJECT NO.: 317AI.00		Test Boring No.: SB30 Total Depth: 17 ft.					
Contractor: Aztech Environmental Drill Rig: 3230DT Driller: Derek Fennell Inspector: Dean Anderson		Start Date: 29-Jan-2018 Finish Date: 29-Jan-2018 El. Datum: NAVD-88 G.S. Elevation: 283.5	Northing: See Figure Easting: Latitude: - Longitude: -	Borehole Dia.: 3.5 in. Water Depth: 9 ft. Bedrock Depth: n/a ft. Sample Hammer: Automatic					
Depth (Ft)	Elevation (Ft)	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum Descriptions:	Field Notes, Comments:	
1	282.5	SS-1	1	18		SP	Poorly Graded Sand (SP): Mostly fine Sand, brown to yellow, moist (Glaciofluvial Deposits)	6" Topsoil 3" frost	
2	281.5		3						
3	280.5								
4	279.5								
5	278.5	SS-2	2	24		SP	Poorly Graded Sand (SP): Mostly fine Sand, grey, moist		
6	277.5		2						
7	276.5		1						
8	275.5		2						
9	274.5								
10	273.5	SS-3	1	24		SP	Poorly Graded Sand (SP): Mostly fine Sand, brown, saurated		
11	272.5		1						
12	271.5		4						
13	270.5								
14	269.5								
15	268.5	SS-4	5	24		SP	Poorly Graded Sand (SP): Mostly fine Sand, brown, saurated		
16	267.5		4						
17	266.5		3						
18	265.5		5						
19	264.5						Boring Terminated at 17 feet		
20	263.5								
METHODS: HA- Hollow Stem Auger, RWH- Rotary Wash, SSA- Solid Stem Auger, DC-Diamond Core, DP-Direct Push SAMPLE TYPES: SS-Split Spoon, RC-Bedrock Core, GS-Geoprobe Sleeve, ST-Shelby Tube STANDARD 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted. NOTES: 2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet. 3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.								DRILLING INFORMATION Method: DP 0 to 15.0 Method: Sample Core Type SS Int Diam. 3.25 Weight 140 lb Fall 30"	
ADDITIONAL NOTES:									

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THE Chazen COMPANIES		547 River Street Troy, New York 12180 Phn: (518) 273-0055 Fax: (518) 273-8391		PROJECT: Rapp Road Residential Development LOCATION: Rapp Road Guilderland, NY CLIENT: Pyramid Management Group, LLC PROJECT NO.: 317AI.00		Test Boring No.: SB31 Total Depth: 17 ft.	
Contractor: Aztech Environmental Drill Rig: 3230DT Driller: Derek Fennell Inspector: Dean Anderson				Start Date: 24-Jan-2018 Finish Date: 24-Jan-2018 El. Datum: NAVD-88 G.S. Elevation: 283.0		Northing: See Figure Easting: Latitude: - Longitude: -	
Borehole Dia.: 3.5 in. Water Depth: 8 ft. Bedrock Depth: n/a ft. Sample Hammer: Automatic							

Depth (Ft)	Elevation (Ft)	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum Descriptions:	Field Notes, Comments:
1	282	SS-1	1	12		SP	Poorly Graded Sand (SP): Mostly fine Sand, black to tan, moist (Glaciofluvial Deposits)	4" Topsoil 4" Frost
2	281		2					
3	280		3					
4	279		4					
5	278	SS-2	3	20		SP	Poorly Graded Sand (SP): Mostly fine Sand, trace Silt, black to tan, moist	
6	277		3					
7	276		2					
8	275		3					
9	274							
10	273	SS-3	3	14		SP	Poorly Graded Sand (SP): Mostly fine Sand, grey, saturated	
11	272		2					
12	271		4					
13	270		3					
14	269							
15	268	SS-4	3	24		SP	Poorly Graded Sand (SP): Mostly fine Sand, grey, saturated	
16	267		3					
17	266		4					
18	265		3					
19	264						Boring Terminated at 17 feet	
20	263							

METHODS: HA- Hollow Stem Auger, RWH- Rotary Wash, SSA- Solid Stem Auger, DC-Diamond Core, DP-Direct Push SAMPLE TYPES: SS-Split Spoon, RC-Bedrock Core, GS-Geoprobe Sleeve, ST-Shelby Tube STANDARD 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted. NOTES: 2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet. 3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.		DRILLING INFORMATION Method: DP 0 to 15.0 Method: Sample Core Type SS Int Diam. 3.25 Weight 140 lb Fall 30"	
ADDITIONAL NOTES:			

TEST BORING LOG

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THE Chazen COMPANIES 547 River Street Troy, New York 12180 Phn: (518) 273-0055 Fax: (518) 273-8391		PROJECT: Rapp Road Residential Development LOCATION: Rapp Road Guilderland, NY CLIENT: Pyramid Management Group, LLC PROJECT NO.: 317Al.00		Test Boring No.: SB32 Total Depth: 17 ft.					
Contractor: Aztech Environmental Drill Rig: 3230DT Driller: Derek Fennell Inspector: Dean Anderson		Start Date: 24-Jan-2018 Finish Date: 24-Jan-2018 El. Datum: NAVD-88 G.S. Elevation: 284.0	Northing: See Figure Easting: - Latitude: - Longitude: -	Borehole Dia.: 3.5 in. Water Depth: 11 ft. Bedrock Depth: n/a ft. Sample Hammer: Automatic					
Depth (Ft)	Elevation (Ft)	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum Descriptions:	Field Notes, Comments:	
1	283	SS-1	4	20		SP	Poorly Graded Sand (SP): Mostly fine Sand, black to tan, moist (Glaciofluvial Deposits)	4" Topsoil 6" Frost	
2	282		1						
3	281		2						
4	280								
5	279	SS-2	6	16		SP	Poorly Graded Sand (SP): Mostly fine Sand, tan to grey, moist		
6	278		6						
7	277		6						
8	276								
9	275								
10	274	SS-3	1	20		SP	Poorly Graded Sand (SP): Mostly fine Sand, brown, moist to saturated		
11	273		1						
12	272		1						
13	271								
14	270								
15	269	SS-4	3	18		SP	Poorly Graded Sand (SP): Mostly fine Sand, brown, moist to saturated		
16	268		3						
17	267		4						
18	266		7						
19	265						Boring Terminated at 17 feet		
20	264								
METHODS: HA- Hollow Stem Auger, RW- Rotary Wash, SSA- Solid Stem Auger, DC-Diamond Core, DP-Direct Push SAMPLE TYPES: SS-Split Spoon, RC-Bedrock Core, GS-Geoprobe Sleeve, ST-Shelby Tube STANDARD 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted. NOTES: 2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet. 3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.								DRILLING INFORMATION Method: DP 0 to 15.0 Method: Sample Core Type SS Int Diam. 3.25 Weight 140 lb Fall 30"	
ADDITIONAL NOTES:									

TEST BORING LOG

Page 50 of 50

THE Chazen COMPANIES		547 River Street Troy, New York 12180 Phn: (518) 273-0055 Fax: (518) 273-8391		PROJECT: Rapp Road Residential Development LOCATION: Rapp Road Guilderland, NY CLIENT: Pyramid Management Group, LLC PROJECT NO.: 317Al.00		Test Boring No.: SB33 Total Depth: 6 ft.	
Contractor: Aztech Environmental Drill Rig: 3230DT Driller: Derek Fennell Inspector: Dean Anderson				Start Date: 29-Jan-2018 Finish Date: 29-Jan-2018 El. Datum: NAVD-88 G.S. Elevation: 299.0		Northing: See Figure Easting: - Latitude: - Longitude: -	
Borehole Dia.: 3.5 in. Water Depth: 11 ft. Bedrock Depth: n/a ft. Sample Hammer: Automatic							

Depth (Ft)	Elevation (Ft)	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum Descriptions:	Field Notes, Comments:
1	298	SS-1	3	24		SP	Poorly Graded Sand (SP): Mostly fine Sand, trace Gravel, brown, moist (Fill)	4" Topsoil 4" Frost
2	297		3					
			4					
3	296	SS-2	8	22		SP	Poorly Graded Sand (SP): Mostly fine Sand, trace Gravel, brown, moist (Fill)	
			9					
			11					
4	295		12					
		SS-3	8	22		SP	Poorly Graded Sand (SP): Mostly fine Sand, trace Gravel, brown, moist (Fill)	
5	294		7					
			5					
6	293		5					
7	292						Boring Terminated at 6 feet	
8	291							
9	290							
10	289							
11	288							
12	287							
13	286							
14	285							
15	284							
16	283							
17	282							
18	281							
19	280							
20	279							

METHODS: HA- Hollow Stem Auger, RWH- Rotary Wash, SSA- Solid Stem Auger, DC-Diamond Core, DP-Direct Push SAMPLE TYPES: SS-Split Spoon, RC-Bedrock Core, GS-Geoprobe Sleeve, ST-Shelby Tube STANDARD 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted. NOTES: 2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet. 3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.		DRILLING INFORMATION Method: DP 0 to 4.0 Method: Sample Core Type SS Int Diam. 3.25 Weight 140 lb Fall 30"	
ADDITIONAL NOTES:			

NEW YORK STATE DEPARTMENT OF HEALTH
Bureau of Water Supply Protection

Percolation Test Data

Development Site: Rapp Road (T/V/C) T County Albany
Date: 08/07/20 & 08/10/20 Tests Conducted By: Roger Keating, Daniel Panko, Christian Rohrmeier, Anthony DeGregorio
Weather Conditions: Raining 85°F (08/07/20) ; Sunny, 91°F (08/10/20)

Test Hole No.	Test Hole Depth (feet)	Soil Profile Description and Groundwater Depth (if identified)	Remarks
TP-1	8.0	0.0'-0.5' : Topsoil 0.5'-7' : Poorly Graded sand: Mostly fine, brown/orange, moist 7'-8' : Mostly fine sand, grey, moist	
TP-2	8.0	0.0'-0.5' : Topsoil 0.5'-7' : Poorly Graded sand: Mostly fine, brown/orange, moist 7'-8' : Mostly fine sand, grey, moist	
TP-3	8.0	0.0'-1.0' : Topsoil 1.0'-5.5' : Poorly Graded sand: Mostly fine, brown/orange, moist 5.5'-8.0' : Mostly fine sand, grey, moist	
TP-4	8.0	0.0'-0.5' : Topsoil 0.5'-5.0' : Poorly Graded sand: Mostly fine, brown/orange, moist 5.0'-8.0' : Mostly fine sand, grey, moist	
TP-5	8.0	0.0'-0.5' : Topsoil 0.5'-6.0' : Poorly Graded sand: Mostly fine, brown, moist 6.0'-8.0' : Mostly fine sand, grey, moist	
TP-6	8.0	0.0'-1.0' : Topsoil 1.0'-7.0' : Mostly fine sand, little silt, brown/grey, saturated 7.0'-8.0' : Mostly fine sand, grey, moist	
TP-10	8.0	0.0'-1.0' : Topsoil 1.0'-7.0' : Mostly fine sand, little silt, brown, saturated 7.0'-8.0' : Mostly fine sand, grey, moist	*SITE 2* Suspected mottling layer encountered at 2.5'
TP-11	8.0	0.0'-1.0' : Topsoil 1.0'-7.0' : Mostly fine sand, little silt, brown, saturated 7.0'-8.0' : Mostly fine sand, grey, moist	*SITE 2* Suspected mottling layer encountered at 2.25'
TP-11A	10.0	0.0'-1.0' : Topsoil 1.0'-7.0' : Mostly fine sand, little silt, brown, saturated 7.0'-10.0' : Mostly fine sand, grey, moist	*SITE 2* Suspected mottling layer encountered at 2.25'
TP-12	8.0	0.0'-0.75' : Topsoil 0.75'-7.0' : Mostly fine sand, little silt, brown, saturated 7.0'-8.0' : Mostly fine sand, grey, moist	*SITE 2* Suspected mottling layer encountered at 2.25'
TP-13	8.0	0.0'-1.0' : Topsoil 1.0'-7.0' : Mostly fine sand, little silt, brown, saturated 7.0'-8.0' : Mostly fine sand, grey, moist	*SITE 2* Suspected mottling layer encountered at 2.75'

Rapp Road Falling Head Test Results

Job Number:

317Al.00

Date:

8/10/2020

Falling Head No. 1			
	Test 1	Test 2	Test 3
Start Time	10:42:00 AM	11:46:00 AM	12:47:00 PM
End Time	11:42:00 AM	12:46:00 PM	1:47:00 PM
Run Time (min)	60	60	60
End Depth (in.)	55	54	55
Start Depth (in.)	31	30	31
Total Fall (in.)	24	24	24
Rate (in/hr)	24.00	24.00	24.00
Avg. Rate (in/hr)	24.00		

(Test Depth: 6.0')

Falling Head No. 2			
	Test 1	Test 2	Test 3
Start Time	10:26:00 AM	11:30:00 AM	12:33:00 PM
End Time	11:26:00 AM	12:30:00 PM	1:33:00 PM
Run Time (min)	60	60	60
End Depth (in.)	43	44	43
Start Depth (in.)	29	29	28
Total Fall (in.)	14	15	14
Rate (in/hr)	14.00	15.00	14.00
Avg. Rate (in/hr)	14.33		

(Test Depth: 6.0')

Falling Head No. 3			
	Test 1	Test 2	Test 3
Start Time	10:16:00 AM	11:16:00 AM	12:16:00 PM
End Time	11:16:00 AM	12:16:00 PM	1:16:00 PM
Run Time (min)	60	60	60
End Depth (in.)	51	49.25	50
Start Depth (in.)	30	29.25	30
Total Fall (in.)	21	20	20
Rate (in/hr)	21.00	20.00	20.00
Avg. Rate (in/hr)	20.33		

(Test Depth: 6.0')

Falling Head No. 4			
	Test 1	Test 2	Test 3
Start Time	10:52:00 AM	11:57:00 AM	1:07:00 PM
End Time	11:52:00 AM	12:57:00 PM	2:07:00 PM
Run Time (min)	60	60	60
End Depth (in.)	48	49	51
Start Depth (in.)	31	28.5	31
Total Fall (in.)	16.75	20.5	20
Rate (in/hr)	16.75	20.50	20.00
Avg. Rate (in/hr)	19.08		

(Test Depth: 6.0')

Falling Head No. 5			
	Test 1	Test 2	Test 3
Start Time	11:21:00 AM	12:22:00 PM	1:24:00 PM
End Time	12:21:00 PM	1:22:00 PM	2:24:00 PM
Run Time (min)	60	60	60
End Depth (in.)	40.5	40	40
Start Depth (in.)	29	29	29
Total Fall (in.)	11.5	11	11
Rate (in/hr)	11.50	11.00	11.00
Avg. Rate (in/hr)	11.17		

(Test Depth: 6.0')

Falling Head No. 6			
	Test 1	Test 2	Test 3
Start Time	8:48:00 AM	9:49:00 AM	10:52:00 AM
End Time	9:48:00 AM	10:49:00 AM	11:52:00 AM
Run Time (min)	60	60	60
End Depth (in.)	51.5	52	51
Start Depth (in.)	30	30	29
Total Fall (in.)	21.5	22	22
Rate (in/hr)	21.5	22	22
Avg. Rate (in/hr)	21.83		

(Test Depth: 6.0')

Falling Head No. 7			
	Test 1	Test 2	Test 3
Start Time	1:59:00 PM	3:00:00 PM	4:01:00 PM

(Test Depth: 2.5')

End Time	2:59:00 PM	4:00:00 PM	5:01:00 PM
Run Time (min)	60	60	60
Start Depth (in.)	0	0	0
End Depth (in.)	24	24	24
Total Fall (in.)	24	24	24
Rate (in/hr)	24.00	24.00	24.00
Avg. Rate (in/hr)	24.00		

Falling Head No. 8			
	Test 1	Test 2	Test 3
Start Time	1:55:00 PM	2:57:00 PM	4:01:00 PM
End Time	2:56:00 PM	3:57:00 PM	5:01:00 PM
Run Time (min)	60	60	60
Start Depth (in.)	0	0	0
End Depth (in.)	24	24	24
Total Fall (in.)	24	24	24
Rate (in/hr)	24.00	24.00	24.00
Avg. Rate (in/hr)	24.00		

(Test Depth: 2.5')

Falling Head No. 9			
	Test 1	Test 2	Test 3
Start Time	1:56:00 PM	2:58:00 PM	3:59:00 PM
End Time	2:56:00 PM	3:58:00 PM	4:59:00 PM
Run Time (min)	60	60	60
Start Depth (in.)	0	0	0
End Depth (in.)	14	14.5	14
Total Fall (in.)	14	14.5	14
Rate (in/hr)	14.00	14.50	14.00
Avg. Rate (in/hr)	14.17		

(Test Depth: 2.5')

Falling Head No. 10			
	Test 1	Test 2	Test 3
Start Time	8:16:00 AM	9:18:00 AM	10:19:00 AM
End Time	9:16:00 AM	10:18:00 AM	11:19:00 AM
Run Time (min)	60	60	60
End Depth (in.)	63	65	63
Start Depth (in.)	41	39	41

(Test Depth: 6.0')

Total Fall (in.)	22	24	22
Rate (in/hr)	22.00	24.0	22.0
Avg. Rate (in/hr)	22.67		

Falling Head No. 11					(Test Depth: 5.5')
	Test 1	Test 2	Test 3	Test 4	
Start Time	8:25:00 AM	9:27:00 AM	10:28:00 AM	11:30:00 AM	
End Time	9:25:00 AM	10:27:00 AM	11:28:00 AM	12:30:00 PM	
Run Time (min)	60	60	60	60	
End Depth (in.)	46	45	44	44	
Start Depth (in.)	42	42	42	42	
Total Fall (in.)	4	1	2	2	
Rate (in/hr)	4.0	1.0	2.0	2.0	
Avg. Rate (in/hr)	2.25				

Falling Head No. 12				(Test Depth: 5.5')
	Test 1	Test 2	Test 3	
Start Time	9:35:00 AM	10:36:00 AM	11:38:00 AM	
End Time	10:35:00 AM	11:36:00 AM	12:38:00 PM	
Run Time (min)	60	60	60	
End Depth (in.)	53	52	52	
Start Depth (in.)	30	30	30	
Total Fall (in.)	23	22	22	
Rate (in/hr)	23.0	22.0	22.0	
Avg. Rate (in/hr)	22.33			

Falling Head No. 13				(Test Depth: 6.0')
	Test 1	Test 2	Test 3	
Start Time	9:46:00 AM	10:27:00 AM	11:10:00 AM	
End Time	10:26:00 AM	11:08:00 AM	11:51:00 AM	
Run Time (min)	40	41	41	
End Depth (in.)	54	54	54	
Start Depth (in.)	30	30	30	
Total Fall (in.)	24	24	24	
Rate (in/hr)	36.0	35.1	35.1	
Avg. Rate (in/hr)	35.41			

Appendix M:
Plan Set Entitled “Rapp Road Residential Development”

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**ALBANY COUNTY PLANNING BOARD
NOTIFICATION**

RECOMMENDATION DATE: July 21st, 2022

Case #:

10-220704023

Applicant:

Apex at Crossgates - 222 Unit Multiple Residence Community

Project Location:

Southwest Corner of Rapp Road/Gipp Road

Tax Map Number:

52.01-3-5.2, 52.01-3-5.11, 52.09-4-43.2

Referring Agency:

Town of Guilderland Planning Board

Considerations:

Site plan review for the construction of 192 apartments over a first level parking garage and 30 townhomes with private garages. In addition, the site includes a 6,500 SF clubhouse, outdoor pool, and recreation space. The Apex will have a lighted and landscaped walking path of the adjacent Crossgates Mall, as well as sidewalks connections to the nearby CDTA bus stop and to Western Avenue. The total impervious area on the project site will be reduced by over 10,000 SF as a part of the proposed site plan modifications.

ACPB

Modify local approval to include

Recommendation:

1. The Albany County Planning Board acknowledges the Town response provided for the previous Rapp Road Apartment recommendation. The Rapp Road Residential Site Plan Findings Statement refers to Alternative 9 as an option for traffic mitigation that discourages traffic from using the southern section of Rapp Road as a means to travel through the middle and northern sections of Rapp Road and Rapp Road Historic District. Rapp Road is proposed to be terminated near the intersection of Rapp Road/ Gipp Road on the Town of Guilderland side of the municipal boundary with the City of Albany. The proposed connector between the Crossgates Mall Ring road by the Macy's lot and Rapp Road makes terminating Rapp Road ineffective.
2. A revised Stormwater Pollution Prevention Plan that is consistent with the requirements included in the New York State Department of Environmental Conservation SPDES General Permit for Stormwater Discharges (GP-0-20-001, January 29, 2020)) for construction activities that disturb more than one acre of land is required since the site plan amendment includes considerable changes to the development.
3. The traffic resulting from the development would still be detrimental to Rapp Road Historical District. The vegetation buffer only screens the development visually but does not mitigate traffic concerns.
4. The local fire department should be notified to evaluate for public safety, emergency services access, water availability and any sprinkler system that may be required by building code as well as the adequacy of the ingress and egress for emergency services.
5. Review by the Albany County Department of Health for water supply, waste water discharge, and other required permits.

Advisory:

1. The Albany County Planning Board advises the Town and the developer to incorporate mass transit concept into turn-around with landscaping and include bus shelters at both entrances of the proposed parking in order to tie the project into Transit Oriented District.
2. The ACPB also advises the Town and the developer to consider working out an alternative with the Pine Bush Preserve Commission to possibly drive the traffic out of the Rapp Road Historic District.
3. The Albany County Planning Board requests CDTA to extend the upcoming Purple Line to the turn-around as advised above to allow residents who would potentially live in the development to have access to the CDTA Purple Line. This would tie in with the goals of a Transit Oriented District.

Gopika Muddappa, Senior Planner
Albany County Planning Board

NOTE:

- This recommendation is rendered in compliance with applicable requirements of Section 239 of New York State General Municipal Law. Final determination on this matter rests with the appropriate municipal body.
- A recommendation of "APPROVE" or "MODIFY LOCAL APPROVAL" should not be interpreted as a recommendation by this body that the referring agency approve the matter referred. Such recommendation does not indicate that this body has reviewed all local concerns; rather the referral has met certain countywide considerations. Evaluation of local criteria is the responsibility of the referring agency.
- General Municipal Law Section 239 requires that the local agency notify the county within thirty days of its final action. Please use the OFFICIAL NOTICE OF LOCAL ACTION form that is attached for this purpose.
- General Municipal Law Section 239 sets forth the procedural requirements for taking local action contrary to the County Planning Board's recommendation of objection or conditional approval.
- Albany County is required to submit a Municipal Separate Storm Sewer System Permit (MS4) (No. GP-0-10-002) Notice of Intent (NOI) to comply with the NYS DEC permit for the control of wastewater and stormwater discharges in accordance with the Clean Water Act. Construction Activity Permit No. GP-0-1-001 issued by NYSDEC is also required for activity with soil disturbances of one acre or more. The law is required by the Clean Water Act to control point source discharges to ground water as well as surface waters.

449 New Salem Road, Voorheesville, NY 12186
TELEPHONE: (518) 655-7932 FAX: (518) 765-3459

In compliance with Article 12-B, Section 239 of New York State General Municipal Law, this serves as official notification to the Albany County Planning Board of the action taken on the application described above.

LOCAL ACTION ON ACPB RECOMMENDATION:

- ☐ AGREED WITH COUNTY PLANNING BOARD RECOMMENDATIONS TO MODIFY OR DISAPPROVE
☐ OVER-RULED COUNTY PLANNING BOARD RECOMMENDATIONS TO MODIFY OR DISAPPROVE

LOCAL DECISION ON PROJECT:

- ☐ PROJECT APPROVED
☐ PROJECT DISAPPROVED

VOTE RECORDED: _____ DATE OF LOCAL ACTION: _____

Set forth the reasons for any action contrary to the ACPB recommendations (use additional sheets if needed):

SIGNED: _____ TITLE: _____

8/10/22, 9:56 AM

Town of Guilderland Mail - RE: Apex @ Crossgates - Albany County Planning Board Comments



Kenneth Kovalchik <kovalchikk@togny.org>

RE: Apex @ Crossgates - Albany County Planning Board Comments

1 message

Neil Gifford <ngifford@albanypinebush.org>

Tue, Aug 9, 2022 at 4:42 PM

To: Kenneth Kovalchik <kovalchikk@togny.org>

Cc: Christopher Hawver <chawver@albanypinebush.org>

Ken,

Apologies for the delay in getting back to you. I was out and only returned to the office today.

You are correct in your assessment of the Commission's position regarding Rapp Road realignment options associated with the Apex at Crossgates project.

We stand by our earlier comments, but rather than reiterate them, I have attached our earlier letters. In particular our March 10, 2020 comments on the DEIS itemize the Technical Committee's concerns with each of the proposed options. The October 7, 2019 letter also addressed traffic options.

The option illustrated in the revised site plan submitted by Apex, appears to have the greatest potential mitigative benefit to wildlife conservation in this section of the Pine Bush, because it has the greatest potential to reduce through traffic speed and volume without impacting additional undeveloped open space.

Thank you for requesting APBPC comment. If you need additional information, please do not hesitate to contact me.

Sincerely,

Neil A. Gifford (he/him/his)*Conservation Director*ngifford@albanypinebush.org

518-456-0655 x1214 Office

518-456-8198 Fax

Albany Pine Bush**Preserve Commission**

195 New Karner Road, Suite 1

Albany, New York 12205

AlbanyPineBush.org**GLOBALLY RARE, NATIONALLY SIGNIFICANT & LOCALLY DISTINCT**<https://mail.google.com/mail/u/0/?ik=891c08f431&view=pt&search=all&permthid=thread-a%3A5552263698797103857%7Cmsg-f%3A174071775765...> 1/3

8/10/22, 9:56 AM

Town of Guilderland Mail - RE: Apex @ Crossgates - Albany County Planning Board Comments



From: Kenneth Kovalchik <kovalchikk@togny.org>
Sent: Friday, July 29, 2022 1:06 PM
To: Neil Gifford <ngifford@albanypinebush.org>
Subject: Apex @ Crossgates - Albany County Planning Board Comments

Neil,

The Albany County Planning Board reviewed the proposed site plan amendment for the Apex @ Crossgates project at their July 21st meeting, see attached recommendations/advisories. Advisory #2 states:

"The ACPB also advises the Town and the developer to consider working out an alternative with the Pine Bush Preserve Commission to possibly drive the traffic out of the Rapp Road Historic District."

I attended the July 21st meeting and the ACPB commented that a road should be considered that would link Gipp Road to the intersection on Washington Ave Ext where the Pine Bush Firehouse is located (Columbia Circle Drive). It's the town's understanding the Pine Bush Preserve Commission would not support a new road in this location as it would be constructed in Full Protection Areas and near the karner butterfly corridor, is this correct? Additionally, the City of Albany, during the EIS process, proposed a Rapp Road Bypass option on the east side of Rapp Road which the Pine Bush Preserve Commission did not support considering the road would have been constructed in Full Protection Areas.

Would you be able to prepare a letter reiterating the concerns the Pine Bush Preserve Commission has with these two options? I'm not sure what other options the ACPB was looking for, but the town continues to support Alternative 9 as the preferred traffic mitigation option, which was included in the original site plan approval and proposed site plan amendment.

Regards.

Kenneth Kovalchik, AICP

Town Planner

Guilderland Town Hall – 2nd Floor

[5209 Western Turnpike](#)

<https://mail.google.com/mail/u/0/?ik=891c08f431&view=pt&search=all&permthid=thread-a%3Ar5552263698797103857%7Cmsg-f%3A174071775765...> 2/3

8/10/22, 9:56 AM

Town of Guilderland Mail - RE: Apex @ Crossgates - Albany County Planning Board Comments

P.O. Box 339

Guilderland, NY 12084

(518) 356-1980 ext 1061

kovalchikk@togny.org

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2 attachments

 **APBPC_Comment_10072019.pdf**
567K

 **APBPC_DEIS_Comment_03102020.pdf**
375K

<https://mail.google.com/mail/u/0/?ik=891c08f431&view=pt&search=all&permthid=thread-a%3Ar5552263698797103857%7Cmsg-f%3A174071775765...> 3/3



October 7, 2019

Mr. Kenneth Kovalchik (*via electronic mail only*)
Town of Guilderland Planner
Guilderland Town Hall – 2nd floor
5209 Western Avenue
P.O. Box 339
Guilderland, NY 12084

RE: 222 Unit Rapp Road Residential Development – Rapp Rd Bypass Proposal

Dear Mr. Kovalchik,

Thank you for providing the Albany Pine Bush Preserve Commission (APBPC) with a copy of the City of Albany Department of Planning and Development's September 16, 2019 draft scope comments, and associated conceptual renderings of a Rapp Road Bypass, and requesting APBPC review and comment. The APBPC appreciates the opportunity to work with the Town of Guilderland and the applicant to balance appropriately located development with the successful conservation of the Albany Pine Bush (APB). The APBPC Technical Committee reviewed the materials at its October 1, 2019 meeting. The comments provided below are a result of that meeting and the materials provided.

The APB supports the world's best remaining example of an inland pitch pine-scrub oak barrens, 78 wildlife Species of Greatest Conservation Need (SGCN), including the federal and state endangered Karner blue butterfly (Kbb) and state threatened frosted elfin butterfly (FE), the largest inland sand dune system in eastern North America and has been designated a National Natural Landmark, a National Heritage Area Site, a NYS Bird Conservation Area and a National Audubon Society Important Bird Area. Coordinating the review of development proposals within the Albany Pine Bush Preserve (APBP) Study Area is therefore an essential part of achieving the vision for the APBP consistent with Environmental Conservation Law (ECL) Article 46, the 2017 Management Plan Update for the APBP (APBPC 2017; <http://www.albanypinebush.org/commission/management-plan>), the Town of Guilderland Comprehensive Plan and the Albany 2030 Comprehensive Plan.

The Technical Committee indicated several concerns and recommendations regarding the potential short and long-term adverse environmental impacts associated with the proposed Rapp Road Bypass, including:

Rapp Road Residential Development – Rapp Rd Bypass

Page 1 of 6

Protection: The proposal is located within the APB Study Area, described in the 2017 Management Plan Update for the APBP and, as proposed, would result in the irreversible loss of a significant portion of an area not only recommended for Full Protection (Area 62), but also previously committed by the applicant as part of a series of actions designed to minimize and mitigate potentially significant adverse impacts of their initial proposal on the APBPC's ability to create and maintain a viable Pine Bush Preserve. As such, the proposed Bypass is inconsistent with ECL Article 46 and the 2017 Management Plan Update for the APBP.

The proposed Rapp Road Bypass also appears incompatible with natural resource protection strategies described in the Albany 2030 Comprehensive Plan. Specifically:

"NH-1 Work with the Albany Pine Bush Commission to support and implement the recommendations of the 2010 Management Plan/ Final Environmental Impact Statement for the Albany Pine Bush Preserve."

And

"NH-1 e. Support the recommendations for areas designated for full protection, partial protection, and open space. Work with the APB Commission, county, and towns to review development proposals for property within these areas to ensure that development will not have a direct adverse impact on the Albany Pine Bush Preserve."

State Environmental Quality Review Act (SEQR): The Technical Committee noted that the proposed Bypass introduces additional potentially significant adverse environmental impacts that, itself, exceed the potential impacts of the initial Rapp Road Residential development proposal. These additional impacts, exceed several SEQR Type 1 thresholds and are likely to have a significant adverse impact on the environment, and should therefore be thoroughly evaluated within a Draft Environmental Impact Statement (DEIS) consistent with the hard look required by 6 NYCRR Part 617.

Those likely impacts include, but are not necessarily limited to,

- Irreversible loss of areas recommended for protection (Full Protection Area 62) as part of the Albany Pine Bush Preserve.
- Loss of highly restorable inland pitch pine-scrub oak barrens. Unlike the proposed site of the residential development (Partial Protection Area 57), Full Protection Area 62 supports existing, but fire-suppressed, inland pitch pine-scrub oak barrens. Restoring the area to quality inland barrens is highly feasible if the lands are protected.
- Alteration of a historic sand dune. The proposed Bypass traverses a large dune and would likely result in significant excavation. The 2014 National Natural Landmark designation indicated that the Pine Bush protects the largest remaining area of inland sand dunes in the eastern United States.
- Direct, indirect and cumulative impacts on wildlife species listed as threatened and endangered with extinction, including the Karner blue butterfly and frosted elfin butterfly, through habitat loss and fragmentation. Both species are known to

already inhabit Full Protection Area 62. Consultation with New York State Department of Environmental Conservation (NYSDEC) and the U.S. Fish and Wildlife Service (USFWS) is requisite to determining the extent to which the site is occupied by listed species.

- Direct, indirect and cumulative impacts on multiple NYS listed SGCN wildlife, including rare birds, reptiles and important pollinators (butterflies, moths, and bees), through habitat loss and fragmentation. In particular, the proposed Bypass, would likely result in increased traffic volume and therefore further worsen, rather than improve, the ability of wildlife to successfully cross Rapp Road and move between preserve properties.

Preserve Management: The proposed Bypass is likely to have potentially adverse impacts on the APBPC's ability to manage adjacent protected lands as outlined in the 2017 Management Plan Update for the APBP (APBPC 2017). The project is likely to have similar potentially negative impacts on the NYSDEC's ability to manage the Karner Blue Butterfly Preserve pursuant to NYSDEC Permit #4-0130-00007/0002, issued December 10, 1996. The site of the proposed Bypass is adjacent to existing preserve and the Karner Blue Butterfly Preserve, owned by the applicant and managed by the NYSDEC in consultation with the APBPC.

Traffic: A coordinated SEQR review should also provide the necessary hard look at how potential changes in traffic volume resulting from the proposed Bypass, may affect the ability of rare wildlife to disperse between protected properties. The City of Albany, The Nature Conservancy (TNC), The Town of Guilderland, Albany County and the applicant have all cooperatively protected considerable habitat on both sides of Rapp Road that help provide a critical linkage between the Karner Blue Butterfly Preserve and APBP. Successful dispersal between these properties, however, is highly contingent upon these species successfully crossing Rapp Road. Studies of Kbb and spotted turtle movement and dispersal patterns along Albany County Route 155, for example, illustrate that traffic volume plays a significant role in impeding wildlife dispersal across roads. When combined with potential direct impacts to wildlife habitat, the impact of increased traffic on Rapp Road, as a result of the Bypass, is likely significant and will further reduce the APBPC's and NYSDEC's ability to successfully manage these rare wildlife populations.

The Technical Committee recommends fully evaluating alternative traffic mitigation measures, including those previously proposed by the applicant, which can reduce both traffic volume and speed along Rapp Road between protected properties, to reduce rather than exacerbate existing and anticipated impacts of traffic on wildlife moving between protected properties. Technical Committee members noted that encouraging use of the Crossgates Mall Ring Road would reduce wildlife-related traffic impacts on Rapp Road and be more consistent with the Transit Oriented District, by channeling traffic to the larger highways better capable of managing the volume.

Mitigation: Since the proposed Rapp Road Bypass would likely result in additional significant adverse impacts on the environment and the APBPC's ability to create and manage a viable preserve, consistent with ECL Article 46 and the 2017 Management Plan Update for the

Albany Pine Bush Preserve, mitigation in addition to that already proposed should be identified as part of the DEIS alternatives analysis. In addition to the mitigation already proposed by the applicant, if additional opportunities for open space protection are not viable in this part of the APB Study Area, we recommend mitigation in the form of habitat or fees sufficient to protect 2 acres of open space elsewhere in the APB Study Area, for every acre lost in Full Protection Area 62.

Interested and Involved Agencies: Since federal and state endangered and threatened species and storm water management permits (or permit modifications) are likely required for this project, please include the USFWS and NYSDEC as involved agencies and the City of Albany, Albany County and the APBPC as interested agencies in SEQRA-related coordinated review of the project.

Alternatives: A SEQRA coordinated review should include an evaluation of development and associated potential environmental impacts and mitigation alternatives including reduced footprint and no-build alternatives.

In conclusion, the additional Rapp Road Bypass proposed by the City of Albany Department of Planning and Economic Development is likely to result in significant additional direct and indirect short and long-term adverse effects on the environment and the APBPC's ability to create and manage a viable preserve, as described in ECL Article 46 and the 2017 Management Plan Update for the APBP, and the long term potential viability of the many rare and endangered species that exist within it. As such, these additional impacts and commensurate additional mitigation measures should be fully evaluated, either as part of the Rapp Road Residential Development DEIS process, or by initiating a separate SEQRA Type I analysis.

The APBPC appreciates the Town of Guilderland's long-standing support for creating and managing a viable preserve and for its efforts to balance conservation and economic development throughout the Town. We look forward to continuing that tradition with this proposal. Thank you for your consideration of these comments and recommendations. If you have any questions or comments regarding this matter, please do not hesitate to contact me.

Sincerely,



Neil A. Gifford
Conservation Director
Albany Pine Bush Preserve Commission

Encl: Southeast Pine Bush Context Map

cc: APBPC Technical Committee
Mr. Keith Goertz, APBPC Chair – NYSDEC Region 4 Director

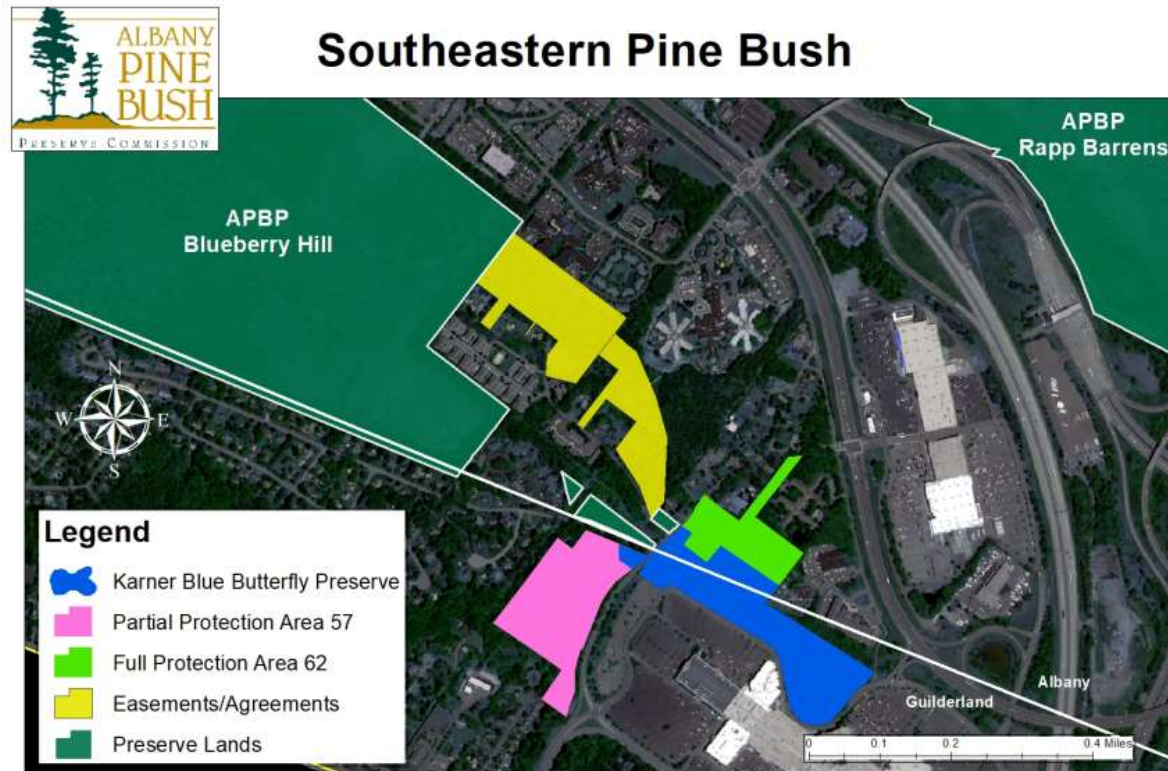
Rapp Road Residential Development – Rapp Rd Bypass

Page 4 of 6

Mr. Christopher A. Hawver, APBPC Executive Director
Ms. Robyn Niver, Endangered Species Biologist, USFWS – NYS Field Office
Ms. Kathy O’Brien, Endangered Species Biologist, NYSDEC
Ms. Trisha Gabriel, NYSDEC Environmental Analyst – Region 4
Mr. Michael Clark, Regional Wildlife Supervisor, NYSDEC-Region 4

Citations:

APBPC. 2017. Management Plan Update for the Albany Pine Bush Preserve. Albany, NY. (www.albanypinebush.org)



Rapp Road Residential Development – Rapp Rd Bypass

Page 6 of 6



March 10, 2020

Mr. Kenneth Kovalchik (*via electronic mail only*)
Town of Guilderland Planner
Guilderland Town Hall – 2nd floor
5209 Western Avenue
P.O. Box 339
Guilderland, NY 12084

RE: DEIS for Rapp Road Residential Development/Western Avenue Redevelopment

Dear Mr. Kovalchik,

Thank you for your February 20, 2020 e-mail providing the Albany Pine Bush Preserve Commission (APBPC) with an internet link to the materials for the above referenced project and requesting APBPC review and comment. The APBPC appreciates the opportunity to work with the Town of Guilderland and the applicant to balance appropriately located development with the successful conservation of the Albany Pine Bush (APB). The APBPC Technical Committee and staff reviewed the materials at its March 3, 2020 meeting. The comments provided below are a result of that discussion.

In response to earlier comment requests from the Town and Albany County planning, we previously provided:

- January 25, 2019 review of the Site Plan Application materials.
- April 18, 2019 summary of proposed mitigation.
- October 7, 2019 review of proposed Rapp Road bypass options.

As stated in these earlier comments (referenced and attached below), the APB supports the world's best remaining example of an inland pitch pine-scrub oak barrens (PPSOB), 78 wildlife Species of Greatest Conservation Need (SGCN), including the federal and state-endangered Karner blue butterfly (Kbb) and state-threatened frosted elfin butterfly, and the largest inland sand dune system in eastern North America. The site has been designated a National Natural Landmark, a National Heritage Area Site, a NYS Bird Conservation Area and a National Audubon Society Important Bird Area. Consequently, coordinating the review of development proposals within the Albany Pine Bush Preserve (APBP) Study Area is an essential part of achieving the vision for the APBP consistent with Environmental Conservation Law (ECL) Article 46, the 2017 Management Plan Update for the APBP (APBPC 2017;

Rapp Road Residential Development DEIS Comment

Page 1 of 4

<http://www.albanypinebush.org/commission/management-plan>) and the Town of Guilderland Comprehensive Plan.

We provide the following summary, reference our earlier comments, and offer clarification where appropriate.

Protection: The proposal for Site 1 will result in the irreversible loss of the ability to protect and manage 19.68 acres recommended for partial protection (Area 57). We do not disagree with the conclusions regarding potential impacts to listed wildlife species, and the fact that the site is highly degraded and dominated by invasive plant species. However, the soils analysis indicates the site supports APB soils and could be restorable to pitch pine-scrub oak barrens (PPSOB). As such, the applicant's proposed mitigation to offset the loss of this restorable acreage on Site 1 is appreciated and consistent with the site's Partial Protection recommendation.

Proposed mitigation includes:

- protecting approximately 8.4 acres within Full Protection Areas 62 and 79;
- providing new/updated indoor and outdoor education/outreach space highlighting Kbb and PPSOB conservation, the APBP, and the applicant's role in balancing conservation and economic development in the APB;
- modifying Rapp Road to improve ecosystem function within the Kbb corridor area; and
- maintaining a 200-foot permanent buffer near Gipp Road in Partial Protection Area 57.

The proposed and conceptual development described for Sites 2 and 3, respectively, are not within areas recommended for protection in the 2017 Management Plan Update. Consequently, their development is unlikely to result in potentially significant adverse impacts on APBPC's ability to create and manage a viable preserve. Native plant landscaping, LED exterior lights, and eliminating non-native invasive plants on Sites 2 and 3 would be consistent with APBPC comments for other non-protection areas in the APB Study Area.

Preserve Habitat Management: We appreciate the applicant's incorporation of meaningful measures to avoid potentially significant impacts on the ability of the APBPC and NYSDEC to manage adjacent protected lands north and east of the Site 1. However, contrary to the summary provided within Section 3.3.1.9 (page 63), it is important to clarify that while it is not envisioned that prescribed fire will be used to manage lands within the proposed 200 foot buffer on Site 1, the APBPC and NYSDEC do intend to use this ecological management tool to restore and maintain adjacent and nearby protected wildlife habitat.

Traffic: The applicant's hard look at evaluating, and potentially offsetting, multiple traffic-related impacts associated with the proposed development of Sites 1, 2 and 3 are appreciated. The DEIS and Appendix I identified several potential options for mitigating traffic on Rapp Road. As outlined in our earlier comments, the APBPC's evaluation of traffic mitigation options is from the perspective of reducing potential impacts on protected lands and the effective conservation of the rare wildlife populations they support. While we empathize with the traffic-related concerns of the Rapp Road Historic District residents and other adjacent neighborhoods, we trust the Planning Board will ultimately select a traffic mitigation option that simultaneously minimizes potential traffic impacts, while maximizing cumulative potential benefits, consistent with the 2017 Management Plan Update, the Guilderland Comprehensive Plan, and the Albany 2030 Comprehensive Plan.

- Alternative 1 (eastern bypass), Alternative 2 (western bypass 1), and Alternative 3 (western bypass 2): As described in Section 3.5.4, and consistent with our October 7, 2019 comments, all three options pose significant adverse and growth-inducing impacts to areas recommended for Full Protection (Areas 29, 79, 62) that currently support globally-rare PPSOB habitat, and rare and listed wildlife species. As such, they are inconsistent with ECL Article 46, the 2017 Management Plan Update, the Guilderland Comprehensive Plan and the Albany 2030 Comprehensive Plan. Additionally, Alternative 1 would significantly reduce the existing and potential ecological function of the applicant's proposed mitigation for the loss of restorable pitch pine-scrub oak barrens on Site 1, by donating 8.4 acres within Full Protection Areas 62 and 79 to the APBPC. In its review of the DEIS, the Technical Committee again noted that the potentially significant negative impacts of traffic mitigation options 1, 2 and 3 are in-fact more significant to APBPC's ability to create and manage a viable preserve and conserve rare wildlife, than the impacts of the Site 1 development itself. As described in the DEIS, these options would also reduce, rather than improve, the linkage between the KBB Preserve and the APBP, and further complicate habitat management on these protected lands. Given the potential for these impacts, we recommend that a separate SEQR process and DEIS is warranted to evaluate these bypass options. Lastly, these three options may likely increase, rather than decrease traffic volume and exacerbate existing impacts on wildlife attempting to travel this constricted wildlife corridor between protected areas east and west of Rapp Road.
- Alternative 4 (middle Rapp Road) and Alternative 5 (w/ emergency access-movable gate): Of the nine options proposed, Alternatives 4 and 5 appear to be the most effective options for simultaneously reducing impacts to ecosystem function and wildlife movement, while also reducing (but not eliminating) thru traffic in the Rapp Road Historic District.
- Alternative 6 (Gipp Road realignment): Alternative 6 would also reduce traffic volume, albeit to a lesser extent than Alternatives 4 and 5, and reduce ecological and wildlife impacts, compared to the existing condition. Additionally, and as noted in the DEIS, combining the Gipp Road realignment with Alternative 4, would also reduce traffic and offer the potential for expanding the size of Kbb corridor area.
- Alternative 9 (Rapp Road Realignment – no direct thru traffic): Alternative 9 would reportedly reduce thru traffic on Rapp Road, by encouraging access to the Crossgates Mall ring road. This option appears less effective than Alternatives 4, 5 and 6 in reducing traffic impacts on ecosystem function, but if successful, would likely be an improvement to the current condition, and offer some benefits to conservation and neighborhood traffic concerns.

Site 1 Landscaping: We appreciate that the applicant has proposed using some native plants and native cultivars for landscaping the site, including the use of white pine for screening. However, we suggest eliminating species that would be potentially problematic should they escape into the nearby-protected lands, including scotch pine (which could be replaced with red or white pine).

In conclusion, with the exception of traffic mitigation Alternatives 1, 2 and 3, the DEIS overall appears to satisfy the hard look required by SEQR from the perspective of the APBPC and our mission. The DEIS also appears to have adequately considered, and is consistent with, earlier APBPC comment. The APBPC appreciates the Town of Guilderland's and the applicant's efforts to support creating and managing a

viable preserve while balancing conservation and economic development interests. Thank you for considering these comments and recommendations. If you have any questions or comments regarding this matter, please do not hesitate to contact me.

Sincerely,



Neil A. Gifford
Conservation Director
Albany Pine Bush Preserve Commission

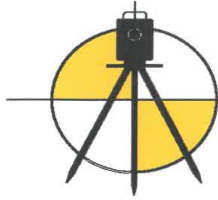
cc: APBPC Technical Committee
Mr. Keith Goertz, APBPC Chair – NYSDEC Region 4 Director
Mr. Christopher A. Hawver, APBPC Executive Director
Ms. Trish Gabriel, NYSDEC Environmental Analyst – Region 4
Mr. Michael Clark, Regional Wildlife Supervisor, NYSDEC-Region 4

Citations:

APBPC. 2017. Management Plan Update for the Albany Pine Bush Preserve. Albany, NY. (www.albanypinebush.org)

TOWN OF GUILDERLAND APPLICATION FOR SUBDIVISION	
RETURN TO: Planning Department, Attn: Town Planner Guilderland Town Hall, Rte 20 Guilderland, NY 12084 (518)356-1980 ext 1061 (518)356-1990 (fax)	FEES: Subdivision Application Fee: _____ ☒ Minor Concept Plan \$150 _____ Minor Final Plat - \$50 per lot _____ Major Concept Plan \$500 _____ Major Preliminary Plat - \$75 per lot _____ Lot Line Amendment \$100 _____ Fee in lieu of parkland reservation* - See §280-36 of Town Code *Payable with building permit application
APPLICANT INFORMATION Name: <u>Laviana Properties LLC</u> Address: <u>1854 Western Ave</u> <u>Albany</u> Zip: <u>12203</u> Phone #: <u>518-461-4157</u> Email: <u>CLaviano@lavianoalby.com</u>	SUBDIVISION INFORMATION Name of Subdivision: <u>1854 Western</u> General Location: <u>1854 Western Ave</u> Zoning: <u>R-15</u> Total Acreage: _____ Tax Map number(s): <u>52-09-6-2</u> Number of Proposed Lots: <u>3</u>
Relationship to property: owner <u>Owner</u> contract vendee _____ other, explain _____	ENGINEER, ARCHITECT OR SURVEYOR: (if other than applicant) Name: <u>SY Kim Land Surveyor, Eugene Kim, PLS</u> Address: <u>424 N Greenbush Road</u> <u>Rensselaer, NY</u> Zip: <u>12144</u> Phone: <u>518-785-3969</u> Email: <u>ekim@sykimls.com</u>
PROPERTY DESCRIPTION Current land use of the property: <u>Vacant Land</u> Briefly describe proposed project: <u>Split 1 acre lot into 3 lots, lot on western ave</u> <u>to be converted to LB zoning keep two old residential lot same zoning as current R-15</u> Generally describe any restrictions on the property (easements, deed restrictions, etc.): <u>None</u>	
Does the property contain any of the following: _____ Stream _____ Pond _____ Wetlands _____ Other body of water _____ Floodplain _____ Steep Slopes _____ Pine Bush _____ Historic/Archeological Resources If yes, please elaborate: _____ Water will be provided by: _____ Well ☒ Connect to existing Town water _____ Extension of Water district Sanitary sewer will be provided by: _____ Septic system ☒ Connect to existing Town sewer _____ Extension of Sewer District Will there be any land dedicated to the Town for a park or open space commonly owned by a Homeowner's Association? _____ If yes, what is the percentage and proposed ownership of the open space? _____	
AGREEMENT The applicant hereby certifies that he/she is the owner of record of the above property, or that he/she has been duly authorized by the owner of record to make this application. Further, by signing this application, the owner/designee gives permission for a representative(s) of the Town of Guilderland to walk the property for the purposes of conducting a site review. Signature of Owner: <u>[Signature]</u> Date: <u>4/11/22</u>	
Town of Guilderland Subdivision Application	





S. Y. Kim Land Surveyor, P.C.

424 North Greenbush Road
Rensselaer, NY 12144

Phone: 518-785-3969

Fax: 518-785-1608

www.sykimls.com

July 20, 2022

Dear Planning Board Chairman:

On behalf of the owner Chris Laviano and Laviano Properties, we would like to present the Concept Plan submission for a 3 lot minor subdivision and request placement on the planning board agenda. The Parcel is located in the R15 single family residential zone.

Please let me know if there are any additional questions or concerns. I can be reached at ekim@sykimls.com – 518-785-3969.

Sincerely,

Eugene Kim, PLS

Principal/Owner



Land Surveying, Design and Engineering

Rensselaer, NY

Short Environmental Assessment Form

Part 1 - Project Information

Instructions for Completing

Part 1 – Project Information. The applicant or project sponsor is responsible for the completion of Part 1. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification. Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

Part 1 – Project and Sponsor Information			
1854 Western Avenue Subdivision			
Name of Action or Project:			
Project Location (describe, and attach a location map):			
1854 Western Avenue, Albany, NY 12203			
Brief Description of Proposed Action:			
3 Lot Minor Subdivision			
Name of Applicant or Sponsor:		Telephone: 518-461-4157	
Chris Laviano		E-Mail: claviano@lavianorealty.com	
Address:			
1859 Western Avenue			
City/PO:		State:	Zip Code:
Albany		NY	12203
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation?			NO YES
If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.			☒ ☐
2. Does the proposed action require a permit, approval or funding from any other government Agency?			NO YES
If Yes, list agency(s) name and permit or approval: Guilderland Town Subdivision Approval			☐ ☒
3. a. Total acreage of the site of the proposed action?		1.14 acres	
b. Total acreage to be physically disturbed?		X acres	
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor?		1.14 acres	
4. Check all land uses that occur on, are adjoining or near the proposed action:			
☐ Urban ☐ Rural (non-agriculture) ☐ Industrial ☐ Commercial ☒ Residential (suburban) ☐ Forest ☐ Agriculture ☐ Aquatic ☐ Other(Specify): ☐ Parkland			

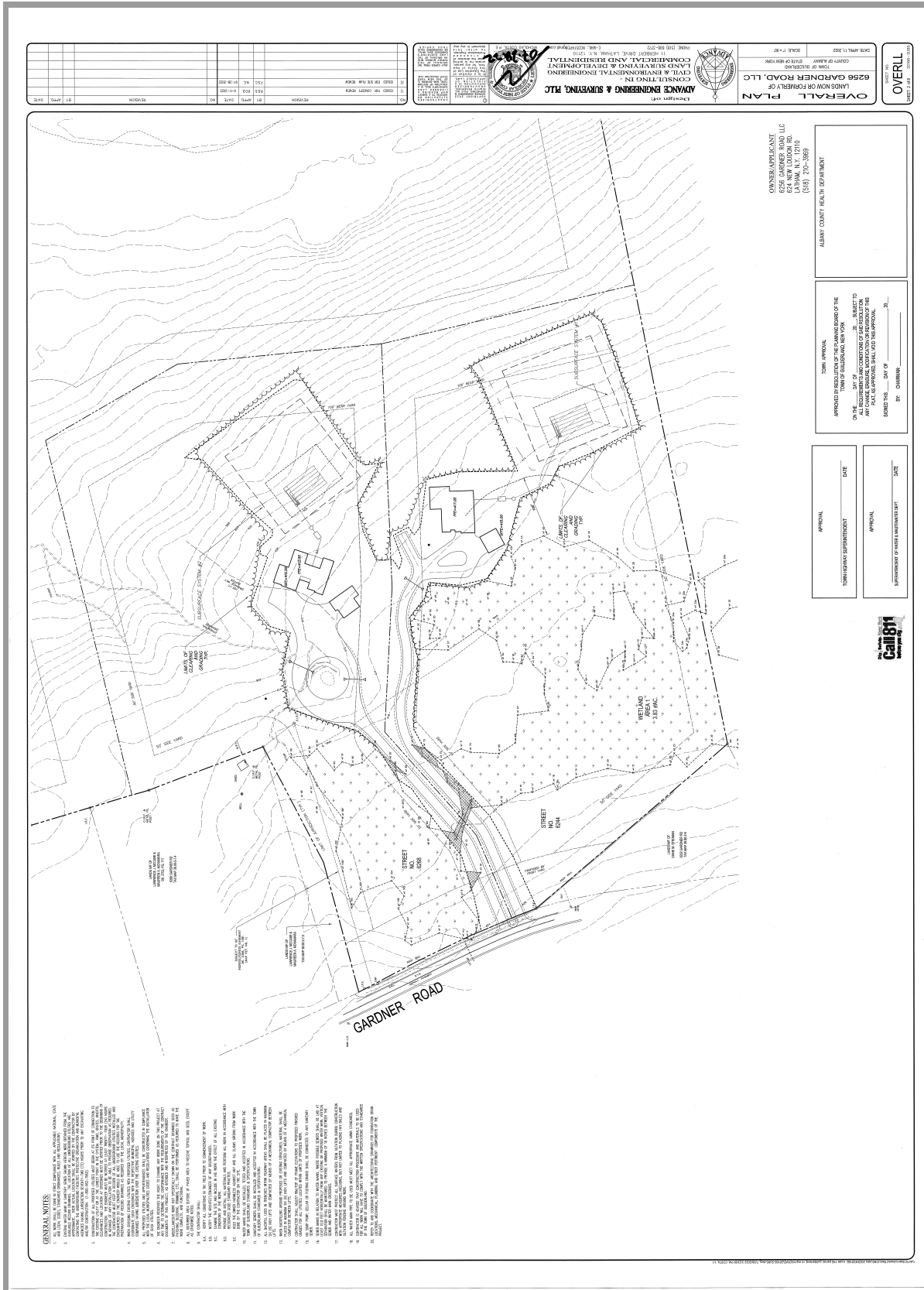
5. Is the proposed action,	NO	YES	N/A
a. A permitted use under the zoning regulations?	☐	☒	☐
b. Consistent with the adopted comprehensive plan?	☐	☒	☐
6. Is the proposed action consistent with the predominant character of the existing built or natural landscape?	NO	YES	
	☐	☒	
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area?	NO	YES	
If Yes, identify: _____	☒	☐	
8. a. Will the proposed action result in a substantial increase in traffic above present levels?	NO	YES	
	☒	☐	
b. Are public transportation services available at or near the site of the proposed action?	☐	☒	
c. Are any pedestrian accommodations or bicycle routes available on or near the site of the proposed action?	☐	☒	
9. Does the proposed action meet or exceed the state energy code requirements?	NO	YES	
If the proposed action will exceed requirements, describe design features and technologies: _____	☐	☒	
10. Will the proposed action connect to an existing public/private water supply?	NO	YES	
If No, describe method for providing potable water: _____	☐	☒	
11. Will the proposed action connect to existing wastewater utilities?	NO	YES	
If No, describe method for providing wastewater treatment: _____	☐	☒	
12. a. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places?	NO	YES	
	☒	☐	
b. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory?	☐	☐	
13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency?	NO	YES	
	☒	☐	
b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody?	☒	☐	
If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres: _____			

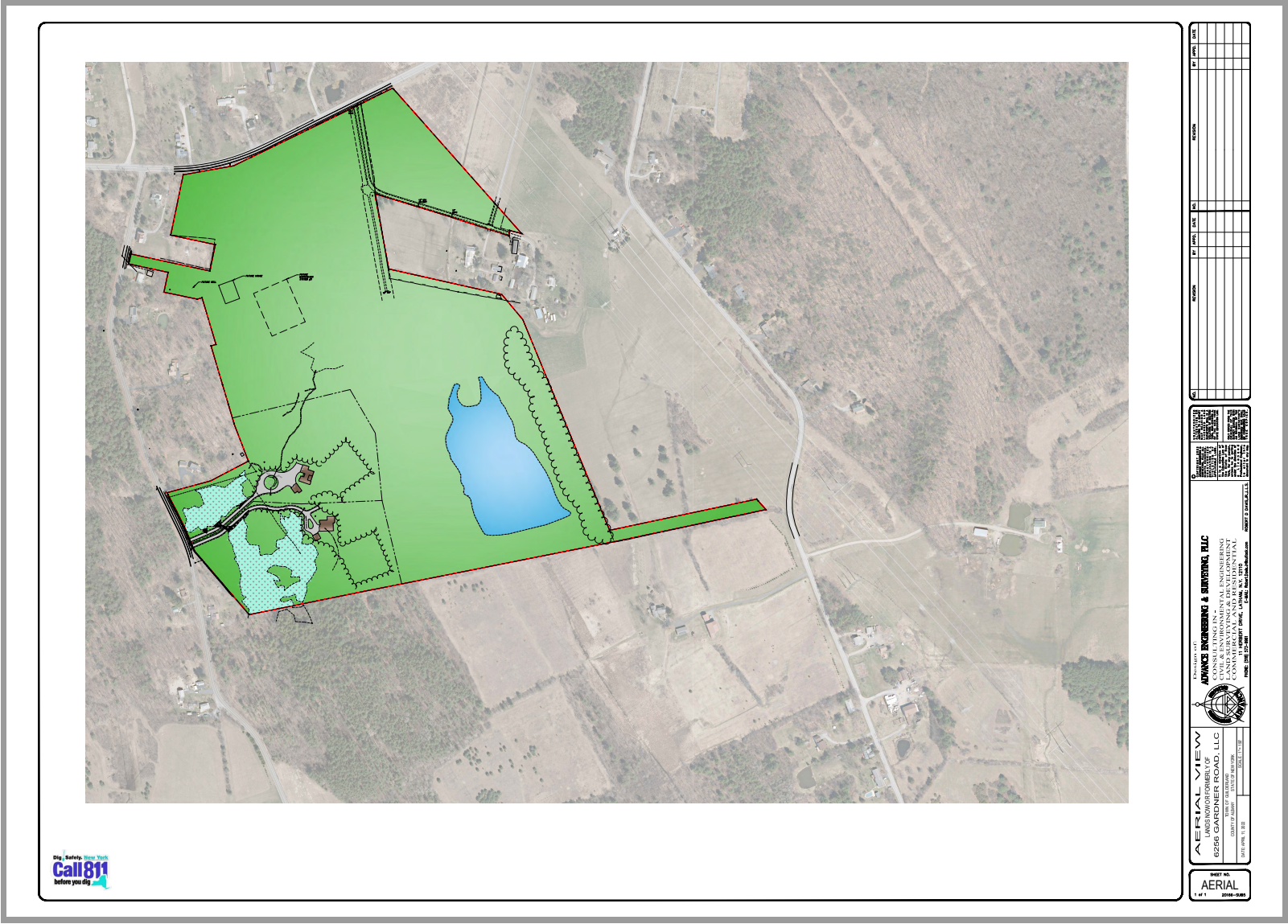
14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply:		
☐ Shoreline ☐ Forest ☐ Agricultural/grasslands ☐ Early mid-successional ☐ Wetland ☐ Urban ☒ Suburban		
15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered?	NO ☒	YES ☐
16. Is the project site located in the 100-year flood plan?	NO ☒	YES ☐
17. Will the proposed action create storm water discharge, either from point or non-point sources? If Yes,	NO ☒	YES ☐
a. Will storm water discharges flow to adjacent properties?	☒	☐
b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)? If Yes, briefly describe:	☒	☐
_____ _____		
18. Does the proposed action include construction or other activities that would result in the impoundment of water or other liquids (e.g., retention pond, waste lagoon, dam)? If Yes, explain the purpose and size of the impoundment:	NO ☒	YES ☐
_____ _____		
19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility? If Yes, describe:	NO ☒	YES ☐
_____ _____		
20. Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste? If Yes, describe:	NO ☒	YES ☐
_____ _____		
I CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE		
Applicant/sponsor name: Christopher Laviano Date: 7/13/0222		
Signature:  Title: Owner		

PRINT FORM

Page 3 of 3

Page 1 of 1 General Attachment: 6256 Gar ... Subdivision Plans - Revised (Page 1 of 1)







**TOWN OF GUILDERLAND
APPLICATION FOR SUBDIVISION**

RETURN TO:

Planning Department, Attn: Town Planner
Guilderland Town Hall, Rte 20
Guilderland, NY 12084
(518)356-1980 ext 1061
(518)356-1990 (fax)

FEES:

Subdivision Application Fee: _____ Subdivision Hearing Fee: _____
☒ Minor Concept Plan \$150 _____ Minor Final Plat - \$50 per lot
 _____ Major Concept Plan \$500 _____ Major Preliminary Plat - \$75 per lot
 _____ Lot Line Amendment \$100
 _____ Fee in lieu of parkland reservation* - See §280-36 of Town Code
 *Payable with building permit application

APPLICANT INFORMATION

Name: 6256 Gardner Rd. LLC
 Address: 624 New Loudon Rd.
Latham NY
 Zip: 12110
 Phone #: 518-210-3969
 Email: mmarini@marini.com

SUBDIVISION INFORMATION

Name of Subdivision: Gardner Road Subdiv.
 General Location: Gardner Rd. & Rte. 146
 Zoning: RA3 Total Acreage: 81.45 Ac.
 Tax Map number(s): 38.00-2-7.1
 Number of Proposed Lots: 3

Relationship to property:

owner ☒
 contract vendee _____
 other, explain _____

ENGINEER, ARCHITECT OR SURVEYOR: (if other than applicant)

Name: Advance Engineering & Surveying
 Address: 11 Herbert Drive
Latham, NY Zip: 12110
 Phone: 518-698-3772
 Email: NCOSTAPE@gmail.com

PROPERTY DESCRIPTION

Current land use of the property: Vacant
 Briefly describe proposed project 3 lot minor subdiv.

Generally describe any restrictions on the property (easements, deed restrictions, etc.): Wetlands & ephemeral Drainage way.

Does the property contain any of the following: _____ Stream ☒ Pond ☒ Wetlands _____ Other body of water
 _____ Floodplain ☒ Steep Slopes _____ Pine Bush _____ Historic/Archeological Resources

If yes, please elaborate: Pond, wetlands, ephemeral drainage way and some steep slopes.

Water will be provided by:

☒ Well _____ Connect to existing Town water _____ Extension of Water district

Sanitary sewer will be provided by:

☒ Septic system _____ Connect to existing Town sewer _____ Extension of Sewer District

Will there be any land dedicated to the Town for a park or open space commonly owned by a Homeowner's Association?

No If yes, what is the percentage and proposed ownership of the open space? _____

AGREEMENT

The applicant hereby certifies that he/she is the owner of record of the above property, or that he/she has been duly authorized by the owner of record to make this application. Further, by signing this application, the owner/designee gives permission for a representative(s) of the Town of Guilderland to walk the property for the purposes of conducting a site review.

Signature of Owner: [Signature] Date: 4/12/22



Advance Engineering & Surveying, PLLC

Consulting in: Civil & Environmental Engineering • Land Surveying • Land Development
11 Herbert Drive
Latham, N.Y. 12110
Phone: (518) 698-3772
Email:ncostape@gmail.com

Nicholas Costa, PE
Robert D. Davis, Jr., LS

Stephen Feeney, Chairman
Guilderland Planning Board
Guilderland Town Hall
P.O. Box 339
Guilderland, N.Y. 12084

Dear Mr. Feeney:

Enclosed please find the necessary documents for the Concept Gardner Road Minor Subdivision submission. Our clients 6256 Gardner Rd. LLC are requesting to be placed on the next available Planning Board meeting.

Thank you.

"Engineering Innovative & Sustainable Solutions"

Short Environmental Assessment Form

Part 1 - Project Information

Instructions for Completing

Part 1 – Project Information. The applicant or project sponsor is responsible for the completion of Part 1. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification. Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

Part 1 – Project and Sponsor Information							
Name of Action or Project: 3 LOT MINOR SUBDIVISION							
Project Location (describe, and attach a location map): GARDNER RD. AND ROUTE 146							
Brief Description of Proposed Action: 3 LOT MINOR SUBDIVISION							
Name of Applicant or Sponsor: 6256 GARDNER ROAD LLC		Telephone: 518-210-3969 E-Mail: MMARINI@MARINI.COM					
Address: 624 NEW LOUDON ROAD							
City/PO: LATHAM		State: NY	Zip Code: 12110				
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.			<table border="1" style="width: 100%; text-align: center;"> <tr> <td style="width: 50%;">NO</td> <td style="width: 50%;">YES</td> </tr> <tr> <td>☒</td> <td>☐</td> </tr> </table>	NO	YES	☒	☐
NO	YES						
☒	☐						
2. Does the proposed action require a permit, approval or funding from any other government Agency? If Yes, list agency(s) name and permit or approval:			<table border="1" style="width: 100%; text-align: center;"> <tr> <td style="width: 50%;">NO</td> <td style="width: 50%;">YES</td> </tr> <tr> <td>☒</td> <td>☐</td> </tr> </table>	NO	YES	☒	☐
NO	YES						
☒	☐						
3. a. Total acreage of the site of the proposed action? 81.45 acres b. Total acreage to be physically disturbed? 3.8 acres c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 81.45 acres							
4. Check all land uses that occur on, are adjoining or near the proposed action:							
5. ☐ Urban ☐ Rural (non-agriculture) ☐ Industrial ☐ Commercial ☒ Residential (suburban) ☒ Forest ☐ Agriculture ☐ Aquatic ☐ Other(Specify): ☐ Parkland							

5. Is the proposed action,	NO	YES	N/A
a. A permitted use under the zoning regulations?	☐	☒	☐
b. Consistent with the adopted comprehensive plan?	☐	☒	☐
6. Is the proposed action consistent with the predominant character of the existing built or natural landscape?	NO	YES	
	☐	☒	
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area?	NO	YES	
If Yes, identify: _____	☒	☐	
8. a. Will the proposed action result in a substantial increase in traffic above present levels?	NO	YES	
	☒	☐	
b. Are public transportation services available at or near the site of the proposed action?	☒	☐	
c. Are any pedestrian accommodations or bicycle routes available on or near the site of the proposed action?	☒	☐	
9. Does the proposed action meet or exceed the state energy code requirements?	NO	YES	
If the proposed action will exceed requirements, describe design features and technologies: _____ _____	☐	☒	
10. Will the proposed action connect to an existing public/private water supply?	NO	YES	
If No, describe method for providing potable water: _____ _____	☒	☐	
11. Will the proposed action connect to existing wastewater utilities?	NO	YES	
If No, describe method for providing wastewater treatment: _____ _____	☒	☐	
12. a. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places?	NO	YES	
	☐	☒	
b. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory?	☒	☐	
13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency?	NO	YES	
	☐	☒	
b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody?	☒	☐	
If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres: _____ _____ _____			

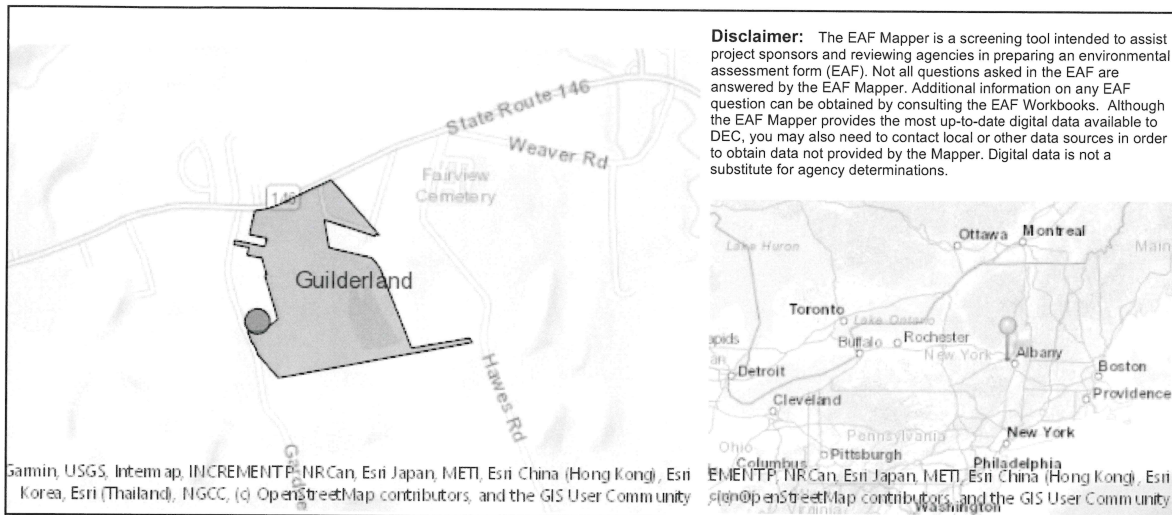
14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply:		
☐ Shoreline ☒ Forest ☐ Agricultural/grasslands ☐ Early mid-successional ☐ Wetland ☐ Urban ☒ Suburban		
15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered? Indiana Bat, Northern Long...	NO ☐	YES ☒
16. Is the project site located in the 100-year flood plan?	NO ☒	YES ☐
17. Will the proposed action create storm water discharge, either from point or non-point sources? If Yes,	NO ☐	YES ☒
a. Will storm water discharges flow to adjacent properties?	☒	☐
b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)? If Yes, briefly describe:	☐	☒
STORMWATER SYSTEM DESIGN WILL COMPLY WITH TOWN OF GUILDERLAND STANDARDS.		
18. Does the proposed action include construction or other activities that would result in the impoundment of water or other liquids (e.g., retention pond, waste lagoon, dam)? If Yes, explain the purpose and size of the impoundment:	NO ☒	YES ☐
19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility? If Yes, describe:	NO ☒	YES ☐
20. Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste? If Yes, describe:	NO ☒	YES ☐
I CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE Applicant/sponsor/name: <u>Mike Marini</u> Date: <u>4/12/22</u> Signature: <u>[Signature]</u> Title: <u>Owner</u>		

PRINT FORM

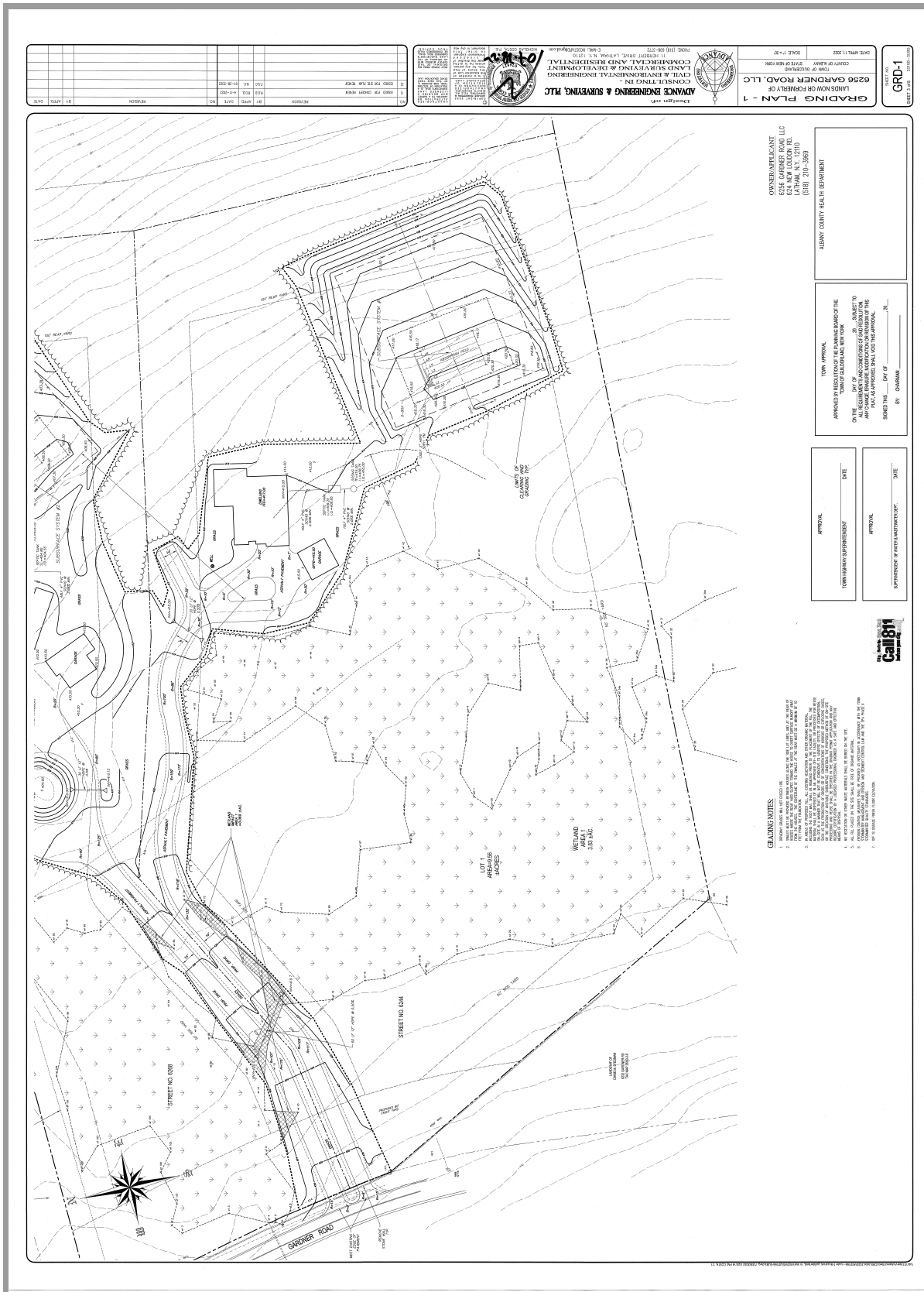
Page 3 of 3

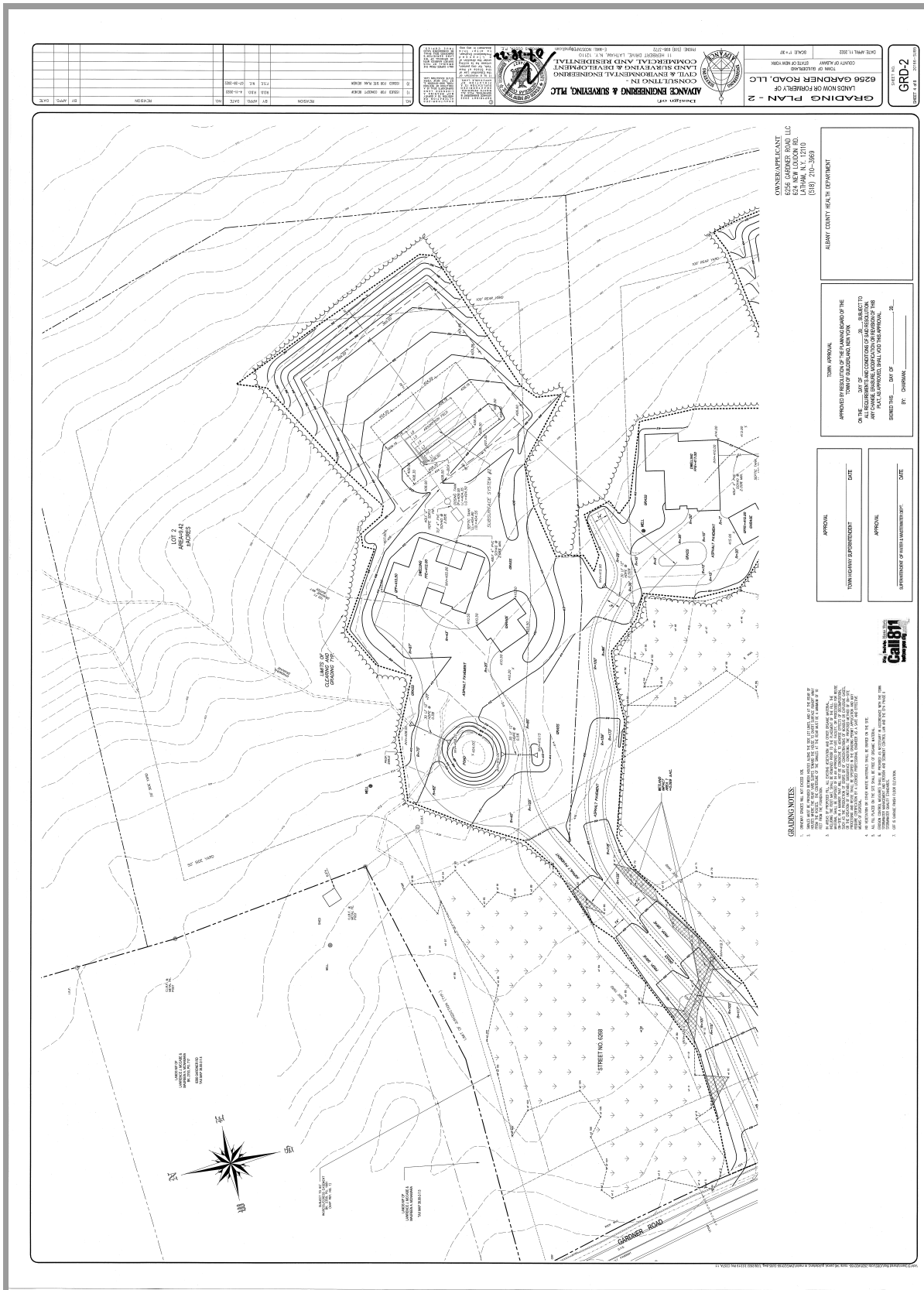
EAF Mapper Summary Report

Monday, April 11, 2022 12:57 PM



Part 1 / Question 7 [Critical Environmental Area]	No
Part 1 / Question 12a [National or State Register of Historic Places or State Eligible Sites]	Yes
Part 1 / Question 12b [Archeological Sites]	No
Part 1 / Question 13a [Wetlands or Other Regulated Waterbodies]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
Part 1 / Question 15 [Threatened or Endangered Animal]	Yes
Part 1 / Question 15 [Threatened or Endangered Animal - Name]	Indiana Bat, Northern Long-eared Bat, Upland Sandpiper
Part 1 / Question 16 [100 Year Flood Plain]	No
Part 1 / Question 20 [Remediation Site]	No

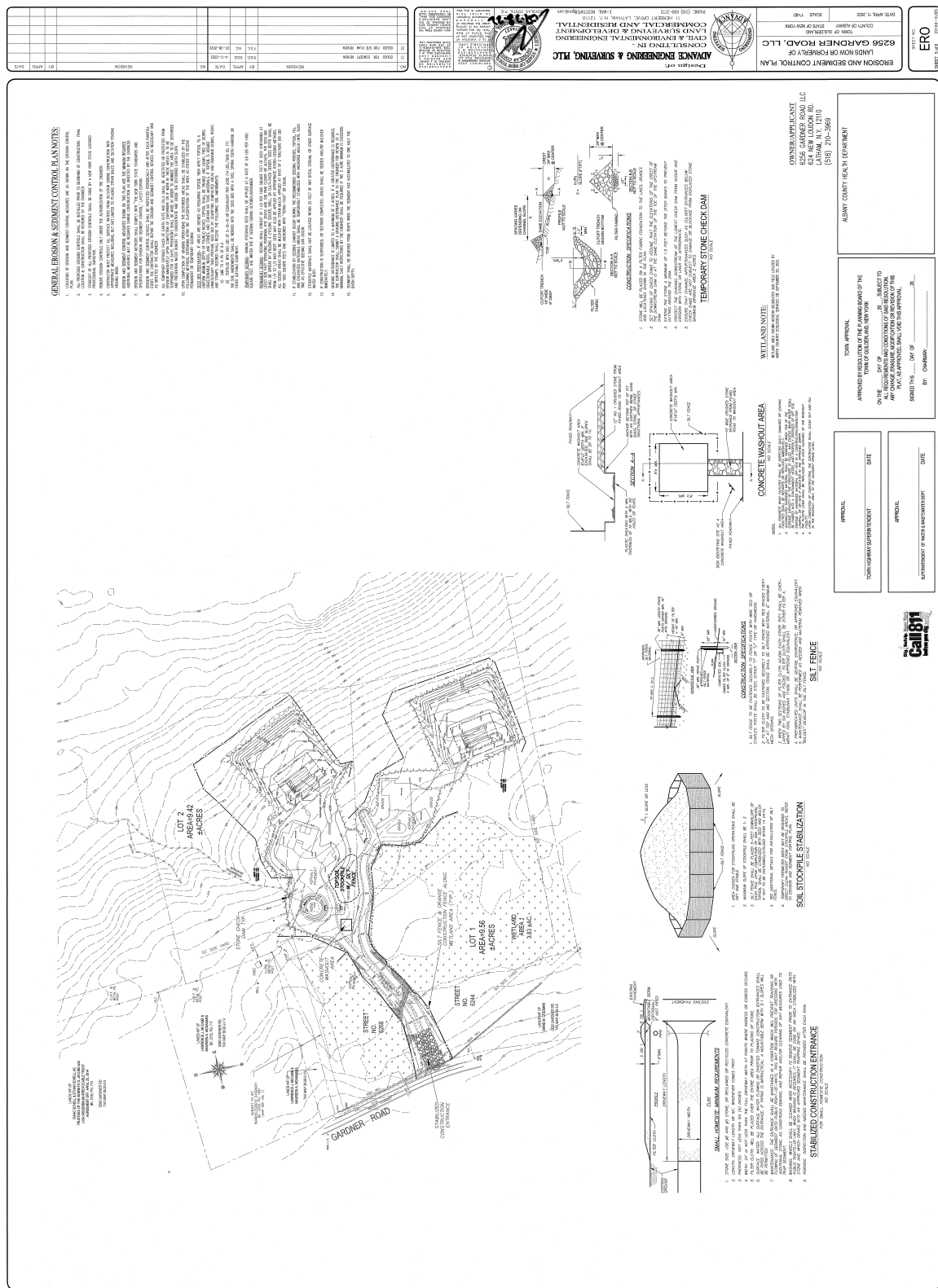














**Parks, Recreation,
and Historic Preservation**

KATHY HOCHUL
Governor

ERIK KULLESEID
Commissioner

July 11, 2022

Stephen Oberon
P.O. Box 235
Old Chatham, NY 12136

Re: DEC
6256 Gardner Road 2-Lot Residential Subdivision
Town of Guilderland, Albany County, NY
22PR04672

Dear Stephen Oberon:

Thank you for requesting the comments of the Office of Parks, Recreation and Historic Preservation (OPRHP). We have reviewed the project in accordance with the New York State Historic Preservation Act of 1980 (Section 14.09 of the New York Parks, Recreation and Historic Preservation Law). These comments are those of the OPRHP and relate only to Historic/Cultural resources. They do not include potential environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the State Environmental Quality Review Act (New York Environmental Conservation Law Article 8) and its implementing regulations (6 NYCRR Part 617).

Based upon this review, it is the opinion of OPRHP that no properties, including archaeological and/or historic resources, listed in or eligible for the New York State and National Registers of Historic Places will be impacted by this project.

If further correspondence is required regarding this project, please be sure to refer to the OPRHP Project Review (PR) number noted above.

Sincerely,

A handwritten signature in black ink, appearing to read "R. Daniel Mackay".

R. Daniel Mackay
Deputy Commissioner for Historic Preservation
Division for Historic Preservation

New York State Office of Parks, Recreation and Historic Preservation
Division for Historic Preservation, Peebles Island, PO Box 189, Waterford, New York 12188-0189
(518) 237-8643 • <https://parks.ny.gov/shpo>



United States Department of the Interior

FISH AND WILDLIFE SERVICE

New York Ecological Services Field Office

3817 Luker Road

Cortland, NY 13045-9385

Phone: (607) 753-9334 Fax: (607) 753-9699

<http://www.fws.gov/northeast/nyfo/es/section7.htm>



In Reply Refer To:
Project Code: 2022-0013753
Project Name: Marini Home

February 28, 2022

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2))

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see <https://www.fws.gov/birds/policies-and-regulations.php>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see <https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

02/28/2022

1

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New York Ecological Services Field Office
3817 Luker Road
Cortland, NY 13045-9385
(607) 753-9334

02/20/2022

2

Project Summary

Project Code: 2022-0013753

Event Code: None

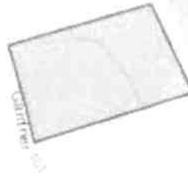
Project Name: Marini Home

Project Type: New Constr - Above Ground

Project Description: The construction of 2 residential homes.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.70133765,-74.00479566,113822.14z>



Counties: Albany County, New York

02/28/2022

3

Endangered Species Act Species

There is a total of 3 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME

STATUS

Indiana Bat *Myotis sodalis*

Endangered

There is **final** critical habitat for this species. The location of the critical habitat is not available.

Species profile: <https://ecos.fws.gov/ecp/species/5949>

Northern Long-eared Bat *Myotis septentrionalis*

Threatened

No critical habitat has been designated for this species.

Species profile: <https://ecos.fws.gov/ecp/species/9045>

Insects

NAME

STATUS

Monarch Butterfly *Danaus plexippus*

Candidate

No critical habitat has been designated for this species.

Species profile: <https://ecos.fws.gov/ecp/species/9743>

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

IPaC User Contact Information

Name: Stephen George
Address: 25 W Fulton St
City: Gloversville
State: NY
Zip: 12078
Email: capt.stephen1007@gmail.com
Phone: 5187251007

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Fish and Wildlife, New York Natural Heritage Program
625 Broadway, Fifth Floor, Albany, NY 12233-4757
P: (518) 402-8935 ; F: (518) 402-8925
www.dec.ny.gov

June 13, 2022

Stephen George, PWS
North Country Ecological Services
25 West Fulton Street, Suite 3
Gloversville, NY 12078

Re: Lands of Marini
County: Albany Town/City: Guilderland

Dear Stephen George:

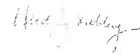
In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to the above project.

Enclosed is a report of rare or state-listed animals and plants, and significant natural communities that our database indicates occur in the vicinity of the project site.

For most sites, comprehensive field surveys have not been conducted; the enclosed report only includes records from our database. We cannot provide a definitive statement as to the presence or absence of all rare or state-listed species or significant natural communities. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other sources may be required to fully assess impacts on biological resources.

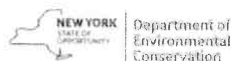
The presence of the plants and animals identified in the enclosed report may result in this project requiring additional review or permit conditions. For further guidance, and for information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the NYS DEC Region 4 Office, Division of Environmental Permits, at dep.r4@dec.ny.gov.

Sincerely,



Heidi Krahling
Environmental Review Specialist
New York Natural Heritage Program

359



New York Natural Heritage Program



Report on State-listed Animals

**The following state-listed animals have been documented
in the vicinity of the project site.**

The following list includes animals that are listed by NYS as Endangered, Threatened, or Special Concern; and/or that are federally listed.

For information about any permit considerations for your project, please contact the Permits staff at the NYSDEC Region 4 Office at dep.r4@dec.ny.gov, 518-357-2449.

The following species has been documented within 1/4 mile of the project site.

COMMON NAME	SCIENTIFIC NAME	NY STATE LISTING	FEDERAL LISTING
Birds			
Upland Sandpiper <i>Breeding</i>	<i>Bartramia longicauda</i>	Threatened	1318

The following species has been documented within 2.5 miles of the project site. Individual animals may travel 2.5 miles from documented locations. The main impact of concern is the cutting or removal of potential roost trees.

COMMON NAME	SCIENTIFIC NAME	NY STATE LISTING	FEDERAL LISTING
Mammals			
Indiana Bat <i>Hibernaculum</i>	<i>Myotis sodalis</i>	Endangered	Endangered 1737

The following species has been documented within 2.5 miles of the project site. Individual animals may travel 5 miles from documented locations. The main impact of concern is the cutting or removal of potential roost trees.

COMMON NAME	SCIENTIFIC NAME	NY STATE LISTING	FEDERAL LISTING
Mammals			
Northern Long-eared Bat <i>Hibernaculum</i>	<i>Myotis septentrionalis</i>	Threatened	Threatened 14128

This report only includes records from the NY Natural Heritage database.

If any rare plants or animals are documented during site visits, we request that information on the observations be provided to the New York Natural Heritage Program so that we may update our database.

Information about many of the listed animals in New York, including habitat, biology, identification, conservation, and management, are available online in Natural Heritage's Conservation Guides at www.guides.nynhp.org, and from NYSDEC at www.dec.ny.gov/animals/7494.html.

6/13/2022

Page 1 of 1

**ALBANY COUNTY PLANNING BOARD
NOTIFICATION****RECOMMENDATION DATE: May 19th, 2022**

Case #: 10-220503978
Applicant: **Gardner Road Minor Subdivision**
Project Location: Gardner Road Rte 146
Tax Map Number: 38.00-2-7.1
Referring Agency: Town of Guilderland Planning Board
Considerations: Three-lot subdivision to divide 81.5 acres of land into three lots consisting of 8.95 acres (Lot 1 & Lot 2) and 63.55 acres (Lot 3). No public water or sewer is available for the proposed lots.

ACPB Recommendation: Modify local approval to include

1. Any wetlands disturbance will require notification to and review by the U.S. Army Corps of Engineers for permits under Section 404 of the Clean Water Act.
2. Review by the Albany County Department of Health for water supply, waste water discharge and other required permits.

Advisory:

1. The applicant should consider relocation of the proposed structure on Lot 2 due to the close proximity of the wetlands.

Gopika Muddappa, Senior Planner
Albany County Planning Board

NOTE:

- This recommendation is rendered in compliance with applicable requirements of Section 239 of New York State General Municipal Law. Final determination on this matter rests with the appropriate municipal body.
- A recommendation of "APPROVE" or "MODIFY LOCAL APPROVAL" should not be interpreted as a recommendation by this body that the referring agency approve the matter referred. Such recommendation does not indicate that this body has reviewed all local concerns; rather the referral has met certain countywide considerations. Evaluation of local criteria is the responsibility of the referring agency.
- General Municipal Law Section 239 requires that the local agency notify the county within thirty days of its final action. Please use the OFFICIAL NOTICE OF LOCAL ACTION form that is attached for this purpose.
- General Municipal Law Section 239 sets forth the procedural requirements for taking local action contrary to the County Planning Board's recommendation of objection or conditional approval.
- Albany County is required to submit a Municipal Separate Storm Sewer System Permit (MS4) (No. GP-0-10-002) Notice of Intent (NOI) to comply with the NYS DEC permit for the control of wastewater and stormwater discharges in accordance with the Clean Water Act. Construction Activity Permit No. GP-0-1-001 issued by NYSDEC is also required for activity with soil disturbances of one acre or more. The law is required by the Clean Water Act to control point source discharges to ground water as well as surface waters.

449 New Salem Road, Voorheesville, NY 12186
TELEPHONE: (518) 655-7932 FAX: (518) 765-3459

Extra
copy

To: Guilderland Planning Board

From: Guilderland Conservation Advisory Council

Date: May 20, 2022

Re.: 6256 Gardner Road Subdivision

APPLICATION -

Applicant(s): Michael Marini, 624 New Loudon Rd., Latham, NY 12110

Proposed Subdivision: A proposed three lot subdivision of 81.95 acres.

Location: Property is located on the south side of Route 146 at the mid point between Route 158 and 156. Access to the site from Gardner Road is about 4/10 mile from Route 146.

Zoning: RA3 – Rural Agricultural.

Site Inspection Summary:

Site Inspection Date: May 14, 2021

Meeting Attendees: May 9, 2021) Presenter Nick Costa, Owner/Applicant Mike Marini and co-owner Paul Barbarotto; GCAC Members Darrell McKnight, Margaretann Paczkowski, Sindi Saita, Steve Sawicki, Matthew Minniefield, Elizabeth Markham, Caitlin Ferrante, Cody Arana and John Wemple Chair; Town Supervisor Peter Barber and Town Board Member Laurel Bohl.

Inspected by: Owner/Applicant Mike Marini and co-owner Paul Barbarotto; GCAC Members Darrell McKnight, Margaretann Paczkowski, Sindi Saita, Steve Sawicki, Matthew Minniefield, Elizabeth Markham, Caitlin Ferrante, Cody Arana and John Wemple Chair;

Conclusions: The planned three lot subdivision should not result in much negative impact to the environment provided the two residential lots are developed in a way that minimizes wastewater flow to the surrounding properties and meets the required guidelines of the County Health Department related to the wells and septic systems for both residences. As noted in the inspection report, there is a need to follow the advice from the fire department related to access needs of their equipment. The open space apparently attracted the wives of both co-owners of proposed Lots 1 and 2 since they are outdoors people and will have the trails on Lot 3 readily available to them. The existing trails will be private and are already posted. Applicant further noted that trails were brush hogged last fall and the reason for the detached garages is to house this maintenance equipment.

Although the proposed plan is only two lots on Gardner Road, the development of more land along Route 146 adds a little more traffic on that highway which is already a stretch of road with relatively fast moving traffic. Although the property is currently owned by a LLC, which is for liability reasons, the Applicant noted that once the subdivision approval is obtained the title of the smaller lots will go to Mike and Paul and the LLC will retain ownership of the larger parcel. GCAC feels it should be noted that Council members were surprised when they saw that much of the area of proposed Lots 1 and 2 as well as the area leading down to the pond were already cleared of so much of the trees which had cover that acreage. At the time of the May 9th meeting,

Conclusions (Continued) – Page 2 of 2 - 6256 Gardner Rd. LLC - May 2022

no mention of the clear cutting was made in the presenter's presentation although it could be assumed that GCAC already knew since the Town had supervised the cutting of the trees. With the trees already removed, a major issue is that an appropriate wastewater management plan be included in the final edition of the Applicant's plan for development. This should include provision for proper drainage in order to avoid negative impact on adjacent properties as well as the large pond.

Submitted by: John G. Wemple, Jr. 5/20/22
John G. Wemple, Jr. - Chair

INSPECTION DETAILSApplicant(s): 6256 Gardner Rd. LLC SubdivisionAddress: 6256 Gardner Road, Altamont, NY 12009

Background: While the Town website shows the owner of the property to be Robert Lodei, according to Presenter and Applicant, the property was purchased by current owners about August 2021. Plan is to subdivide the acreage into three lots, with access from Gardner Road to two 8.95 acre residential lots and a third lot on the remainder of the property. This third lot is planned to be open space with private hiking trails and to be used for recreational purposes by the planned owners of Lots 1 and 2, Paul Barbatotto and Mike Marini respectively. At the May 9th meeting, it was pointed out in the presentation, that the northern end of the property along Route 146 was considered for a possible site for the building lots but was dismissed due to the contour of the property which would necessitate an upward approach from Route 146 to get to the potential building sites. Thus, the current plan was developed with the two building lots along Gardner Road. It was further noted that the driveway will necessitate some disturbance of the wetlands which cover much of the front portion of both building lots. There is a pond on the large Lot 3 and it was noted that the property slopes steeper as you go east from Lots 1 and 2 toward the pond. It was also noted that there is access to the property from Route 146 but they don't plan on using it. For fire safety, plan is to refer the development to the fire department. Also, driveways are planned to have turnaround for fire trucks. Besides planned referral to the Fire Department, the Presenter also noted that environmentalist and ecologist are doing their part on compiling information related to possible endangered species and that DEC Fish & wildlife and the Corp of Engineers have also been contacted – Applicant and owners have not been alerted that there is anything on the site that is of concern.

Topography: A review of the contour line on the County and Town Interactive Mapping sites and the Concept plan drawing show the property slopes from along Gardner Road toward the rear of Lots 1 and 2 and continues to decrease in elevation to the mid-section of the open area of Lot 3 where the elevation is 370 ft. AMSL. The slope continues toward to the area of the large pond where elevation is 358 ft. AMSL. To the east of this large pond which is about 700 ft. long and 400 ft. wide, the acreage rise more sharply from 360 to 380 feet AMSL on a 125 feet wide strip along the east boundary adjacent to the pond. It was further noted that the proposed residence on Lot 1 is at an elevation of about 413 ft. AMSL and the residence on Lot 2 is at about 408 ft. AMSL. The rear of the two residential lots are at elevation of 404 at the south east corner of Lot 1 and at 386 ft AMSL at the north east corner of Lot 2. To the east of both lots the downward slope toward the pond area is similar to the upward slope already noted on the opposite side of the pond. While it is not shown on the Concept plan drawing, a second much smaller pond is noted on the County map to the west of the mid section of the large pond. At time of site visit, GCAC noted that there is a wide area that has been cleared of trees from the edge of the road to the area to be developed for the driveway and residences on lots 1 and 2 with an area of trees still standing between the two lots starting near the point where the driveways separate and head in the direction of the two residences. Those GCAC members who walked toward the rear of the two residential lots and downward to the east noted the open area for which there is no plan to develop.

Vegetation/Trees: Presenter described the property as having trees, shrubs and grass. He further

Inspection (Continued) Page 2 of 9 - 6256 Gardner Rd. LLC - May 2022

noted that the area of Lots 1 and 2 has some tangles but should be navigable. At time of May 14th site visit, GCAC noted that the property has lots of pine trees as well as some hickory, white oak and maple. Also noted were fern and wild geranium. GCAC does not recall the Presenter or Owners saying anything about having already removed trees at the May 9th GCAC meeting and was expecting to find an untouched lot. As noted above, many trees have already been cut down to make way for development on Lots 1 and 2. Based on information from the Town Planner, the Town apparently was aware of the tree cutting since the Town Stormwater Coordinator visited the site during tree cutting to verify procedures were being followed. Related to the tree cutting, GCAC further noted that it was odd to see trees down so close to the pond and a few trees were even cut and fell into the large pond. With so much of the area cleared of trees, it is possible that the Applicant turns this area into lawn, resulting in the pond being at risk due to increased run off. GCAC also noted a lack of waterfowl in the pond already, and it appeared the cattail may have been cut down eroding further habitat. The remaining trees on Lots 1 and 2 are tall with many having a diameter of about 10+ inches. Regarding the many stumps remaining from the clear cutting, the plan is to remove the stumps of the trees which have been cut down and fill in the resulting holes, avoiding possible sink holes in the future.

Soil: According to presenter, soil are mostly Burdett and Nunda silt loam; and soil was tested by the Health Department but mostly in the area to be developed.

A review of the soil identified on the County Interactive Mapping site shows there are fifteen different soils on the property identified as Ae, BuA, BuB, BuC, HnB, HnC, In, Ma, MbC, MbD, NuB, NuC, Ra, ScA, and VaB. Along the north border of the property there is a small area of ScA soil at the northwest corner of Lot 3; to the east of this is a small area of VaB soil; To the east is a larger area of BuA soil which is funnel shaped and extends about 750 ft. southward toward the middle of Lot 3. At the north corner of Lot 3, there is a small area of Ae soil. South of this is a larger area of In soil which runs along side of the BuA just noted. East of the In area is an area of BuB soil which runs along the north east border of Lot 3 for a distance of about 300 ft. and extends about 300 ft into the property. South of this is BuA area which extends southward to the north border of the pond area. Along the northeast border to the southeast of the BuB area is an area about 375 ft wide of Ra soil and at the corner of that portion of Lot 3 is a small area of HnB soil. Looking back at the northern part of Lot 3, below (south) of the ScA area initially noted, there is an area of BuA soil and next to or east of that a similar size area of In soil. To the south is an area of BuB soil which covers a small wedge shaped area east of the BuA area and extends into the mid section of Lot 3 to the west side of the pond area which has Ae soil along the outer portion of the pond and its wetland area and Ma soil in the middle section of the pond. The same HnB soil already noted along the northeast border also extends southward to the wetland area of the pond. To the south of this HnB area is a MbC area which runs along the east border for about 150 ft and extends about 300 ft. to the pond area at which point it is about 300 ft. wide. Running along the remainder of the east border is a strip of MbD soil with the exception of the narrow strip of the property which extends eastward in the direction of Hawes Road and has three small sections of BuB, NuC and HnC soil as well as a very small section of NuB at the east end of this segment of Lot 3. Going back to the west border of the property, there is a small wedge shaped area of BuC soil along the south side of extension on the west side of Lot 3 which also extends a short distance into the lot before meeting the large area of NuB soil which covers most of Lots 1 and 2. To the east of this NuB area is an area of NuC soil which covers the rear portion of Lot 2 as well as the northeast corner of Lot 1, and continues southward to the south

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border of the property. To the east of this NuC area is a strip of HnC soil which is about 1120 ft long and about 150 ft. wide and contains the small pond shown on the County map. To the south of this HnC area is a small area of MbD soil at the south border.

Using data from "Soil Survey of Albany County, New York" -1992 – James H. Brown, a brief description of these soils and some of the limitations of the particular soils are as follows:

Ae -Allis silt loam – This nearly level soil is moderately deep and poorly drained. The seasonal high water table in this soil is at a depth of less than 1 foot and is perched on the silty clay loam subsoil from November through June. The seasonal high water table limits rooting depth. Bedrock is 20 to 40 inches below the surface. Permeability is slow to very slow. Available water capacity is moderate, and runoff is slow. Most areas of this soil is brushland. The limitations of this soil on sites for dwellings with basements are the seasonal high water table and depth to bedrock. Installing subsurface drains around footings and foundations will lower the water table. Adding fill material to elevate the floor of dwellings without basements above the surrounding ground level and grading to divert surface water will also reduce wetness. The main limitations of this soil for local roads and streets are the seasonal high water table and low strength. Constructing roads on raised fill material will reduce wetness and prevent the road damage that the seasonal high water table causes. Providing a suitable subsurface or base material will improve soil stability and strength. The main limitation affecting the use of this soil as a site for septic tank absorption fields are the seasonal high water table and the depth to bedrock. Specially designed systems will overcome the moderate depth to bedrock and the seasonal high water table. Drainage around the filter field and diversion of surface water from higher areas will reduce wetness. The hardness of the local bedrock will influence costs. Other soils that are deeper and better drained in the nearby higher landscape

BuA – Burdett silt loam, 0 to 3 percent slopes - This very deep soil is nearly level and somewhat poorly drained. Included in this soil in mapping are areas of the moderately well drained Nunds soils on hilltops. Also included are areas of the poorly drained and very poorly drained Ilion and Madalin soils in depressions and along drainageways. The seasonal high water table in the Burdett soil is perched on the clayey subsoil at a depth of ½ foot to 1 ½ feet from December to May in most years. Permeability is moderate in the surface and subsurface layers and slow in the subsoil and substratum. Available water capacity is high and surface runoff is slow. County soil survey notes that most of the acreage of this soil is used as hayland, pasture, or woodland. The main limitation of this soil on sites for dwellings with basements is the seasonal high water table. Installing foundation drains and applying protective coatings to basement walls help prevent wet basements. Grading the land surface to divert runoff from the higher areas also helps reduce wetness. The main limitations for local roads and streets on this soil are the seasonal high water table and frost-action potential. When wet this soil is soft and causes the pavement to crack under heavy traffic. Constructing the road on raised fill material will reduce wetness and prevent the road damage that the seasonal high water table causes. Providing a coarse textured subgrade or base material and installing surface or subsurface drainage will reduce the frost-action potential and enhance soil strength. The main limitations affecting the use of this soil as a site for septic tank absorption fields are the seasonal high water table and the slow percolation in the subsoil. A specially designed septic tank absorption field or an alternative system will properly filter effluent. An alternate system will include a drainage system around the filter field to lower the water table, diversion ditches to intercept water from the higher areas, and an enlarged trench below the distribution line to improve percolation.

BuB – Burdett silt loam, 3 to 8 percent slopes - This gently sloping soil is very deep and somewhat poorly drained. The seasonal high water table in this Burdett soil is perched on the clayey subsoil at a depth of ½ foot to 1 ½ feet from December to May in most years.

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

BuC -Burdett silt loam, 8 to 15 percent slopes - This strongly sloping soil is very deep and somewhat poorly drained. Typically, the surface layer is very dark grayish brown silt loam about 8 inches thick. The seasonal high water table in this Burdett soil is perched on the clayey subsoil at a depth of 6 to 18 inches from November to May in most years. Permeability is moderate in the surface and subsurface layers and slow in the subsoil and substratum. Available water capacity is high, and surface runoff is medium. Northern red oak, sugar maple, beech, and hemlock are common to the soil. The main limitation of this soil on sites for dwellings with basements is the seasonal high water table. Erosion is a hazard during construction. Installing foundation drains and applying protective coatings to basement walls help prevent wet basements. Land grading and properly placed diversions will remove surface water. Restoring vegetation, applying mulch, and using temporary waterways and diversions during construction help prevent erosion. The main limitations for roads and streets on this soil are the seasonal high water table and the frost-action potential. The main limitations affecting the use of this soil as a site for septic tank absorption fields are the seasonal high water table and the slow percolation in the subsoil. A specially designed septic tank absorption field or an alternative system will properly filter effluent. An alternate system includes a drainage system around the filter field to lower the water table, diversion ditches to intercept water from higher areas, and an enlarged trench below the distribution line to improve percolation.

HnB - Hornell silt loam, 3 to 8 percent slopes. -This gently sloping soil is moderately deep and somewhat poorly drained. The seasonal high water table in this soil is perched above the clayey subsoil at a depth of 6 to 18 inches from December to May. Depth to bedrock is 20 to 40 inches. It restricts rooting depth. Permeability is moderate in the surface layer and slow or very slow in the subsoil. The available water capacity is moderate. The main limitation of this soil on sites for dwellings with basements is the seasonal high water table. Diversions placed above the building site, foundation drains, and a protective coating on basement walls help prevent wet basements. The main limitations of this soil for local roads and streets are the seasonal high water table and low strength. Constructing roads on raised fill material and installing drainage reduce wetness. Coarse textured subgrade or base material helps improve soil strength. The main limitations affecting use of this soil as a site for septic tank absorption fields are the seasonal high water table, the depth to bedrock, and the slow percolation. According to the soil survey

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reference book cited, a specially designed septic tank absorption field, including drainage around the site, will adequately filter effluent.

HnC – Hornell silt loam, 8 to 15 percent slopes. -This strongly sloping soil is moderately deep and somewhat poorly drained. The seasonal high water table in this soil is perched above the clayey subsoil at a depth of 6 to 18 inches from December to May. Depth to bedrock is 20 to 40 inches. It restricts rooting depth. Permeability is moderate in the surface layer and slow or very slow in the subsoil. The available water capacity is moderate. The main limitation of this soil on sites for dwellings with basements is the seasonal high water table. Diversions placed above the building site, foundation drains, and a protective coating on basement walls help prevent wet basements. The main limitations of this soil for local roads and streets are the seasonal high water table and low strength. Constructing roads on raised fill material and installing drainage reduce wetness. Coarse textured subgrade or base material helps improve soil strength. The main limitations affecting use of this soil as a site for septic tank absorption fields are the seasonal high water table, the depth to bedrock, and the slow percolation. According to the soil survey reference book cited, a specially designed septic tank absorption field, including drainage around the site, will adequately filter effluent. It further points out that other nearby soils that are higher on the landscape are better suited to this use.

In – Ilion silt loam - This nearly level soil is very deep and poorly drained. The seasonal high water table in this Ilion soil is perched at a depth of less than 1 foot from November to May. Depth to bedrock is more than 60 inches. Permeability is moderate or moderately slow in the surface layer and is slow or very slow in the subsoil. Available water capacity is high. Surface runoff is very slow. County soil survey notes that most of the acreage is used as woodland or brushland. The seasonal high water table or ponding is the main limitation of this soil on sites for dwellings with basements. Foundation drains, subsurface drainage systems, and protective coatings for basement walls help overcome these limitations. Grading to move surface water away from dwellings and diverting runoff from the higher areas also reduce wetness. The main limitations of this soil for local roads and streets are the seasonal high water table, ponding, and the frost-action potential. Wetness softens this soil most of the year and causes the pavement to crack under heavy traffic. A coarse textured subgrade or base material and surface or subsurface drainage away from the road site lower the water 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, ponding, and slow percolation in the subsoil. Other nearby soils are better suited to this use. A specially designed septic tank absorption field or an alternative system will properly filter effluent. A drainage system around the filter field and diversions to intercept water from the nearby higher areas will reduce wetness.

Ma – Madalin silt loam – This nearly level soil is very deep and poorly and very poorly drained. It is in depressions on plains and near hillsides. Areas of this soil are long and narrow or irregularly shaped and range from 5 to 80 acres in size. Slopes range from 0 to 3 percent. The seasonal high water table of this Madalin soil is at a depth of less than ½ foot between November and June. Depth to bedrock is more than 60 inches. Permeability is moderately slow in the surface layer, slow in the subsoil, and very slow in the substratum. The available water capacity is high. This soil is poorly suited to cultivated crops. The seasonal high water table is a limitation. Closely spaced subsurface drains in combination with open ditch drainage lower the water table. Drainage outlets are generally difficult to establish because of the basinlike topography of this soil. A conservation tillage system, cover crops, and tillage at the proper moisture content help maintain soil tilth and organic matter content. This soil is moderately suited to pasture. Rotation grazing, proper stocking rates, and restricted grazing during wet periods help keep the pasture in good condition. The main limitation of this soil for dwellings

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with basements is the seasonal high water table. Diversions placed above the building site, foundation drains, and a protective coating on basement walls 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 fill material and installing drainage systems will increase soil strength. Providing grained subgrade or base material to frost depth will 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. Adjacent soils that are higher on the landscape are better suited to this use. Septic systems on the higher areas of this Madalin soil and on areas of better drained included soils will adequately filter effluent. A drainage system around the absorption field and diversions to intercept runoff from the higher areas will reduce wetness. Enlarging the absorption field or the trench below the distribution lines will improve percolation.

MbC – Manlius channery silt loam, 8 to 15 percent slopes - This strongly sloping soil is moderately deep and well drained to somewhat excessively drained. Depth to bedrock is 20 to 40 inches. It limits rooting depth to 15 to 24 inches. Permeability is moderate. The main limitation of this soil on sites for dwellings with basements is the depth to bedrock. Areas of the included soils and nearby soils that are deeper to bedrock are better suited to this use. Erosion is a hazard during construction. Maintaining the vegetative cover adjacent to the site and diverting runoff help control erosion. The main limitations of this soil for local roads and streets are the moderate depth to bedrock, the slope, and a moderate frost-action potential. Carefully planning and constructing them on the contour will avoid cutting grades into bedrock. The bedrock is generally highly weathered and easy to rip with typical construction equipment. Providing coarse textured subgrade or base material to frost depth helps reduce frost action. The main limitation affecting the use of this soil as a site for septic tank absorption fields is the depth to bedrock. Septic tank absorption fields in areas of included soils that are deeper to bedrock will properly filter effluent.

MbD – Manlius channery silt loam, 15 to 25 percent slopes - This moderately steep soil is moderately deep and well drained to somewhat excessively drained. Depth to bedrock is 20 to 40 inches. It limits rooting to 15 to 24 inches. Permeability is moderate. Available water capacity is low. The main limitations of this soil for dwellings with basements are the depth to bedrock and the slope. Areas of included soils and nearby soils that are less sloping and deeper to bedrock are better suited to this use. The soil reference notes that on this Manlius soil, placing the building on bedrock and adding fill to landscape around it or ripping the weathered bedrock are suitable management practices. It further notes that designing the dwelling to conform to the slope or cutting and filling in construction benches are also suitable management practices. Maintaining the vegetative cover adjacent to the site, diverting runoff, and mulching help control erosion. The main limitation of this soil for local roads and streets is the slope. Depth to bedrock is also a limitation. Laying out roads on the contour is a suitable management practice. Landscaping and grading help overcome the slope limitation. The main limitations affecting the use of this soil as a site for septic tank absorption fields are the depth to bedrock and the slope. Septic tank absorption fields on the included soils that are deeper to bedrock will properly filter effluent. Installing distribution lines on the contour, with drop boxes or other structures, will ensure even distribution of effluent and more effective operation of the system.

NuB - Nunda silt loam, 3 to 8 percent slopes - This gently sloping soil is very deep and moderately well drained. The seasonal high water table is at a depth of 18 to 24 inches from March to May. Depth to bedrock is more than 60 inches. Permeability is moderate in the surface layer and in the upper part of the subsoil and slow to very slow below. The available water

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capacity is high, and runoff is medium. The main limitation of this soil on sites for dwellings with basements is the seasonal high water table. Foundation drains and interceptor drains upslope from construction sites divert runoff and lower the water table. The main limitation of this soil for local roads and streets is the frost-action potential. Constructing roads on coarse textured fill material provides drainage away from the roadway. The main limitation affecting the use of this soil as a site for septic tank absorption fields are the seasonal high water table and the slow percolation in the subsoil and substratum. Installing a drainage system around the absorption field and diversions to intercept runoff from the higher areas will reduce wetness. Enlarging the absorption field or the trench below the distribution lines will improve percolation.

NuC – Nunda silt loam, 8 to 15 percent slopes— This strongly sloping soil is very deep and moderately well drained. The seasonal high water table is at a depth of 18 to 24 inches from March to May. Depth to bedrock is more than 60 inches. Permeability is moderate in the surface layer and in the upper part of the subsoil and slow or very slow below. The available water capacity is high, and runoff is medium or rapid. The main limitation of this soil on sites for dwellings with basements is the seasonal high water table. Foundation drains and interceptor drains upslope from construction sites divert runoff and reduce wetness. Erosion is a hazard during construction. Maintaining the vegetative cover adjacent to the site and diverting runoff from the higher areas help control erosion. The main limitation of this soil for local roads and streets is the frost-action potential. Constructing roads on coarse textured fill material provides drainage away from the roadway. Erosion is a hazard if these sloping soils are left unprotected. The main limitations affecting the use of this soil as a site for septic tank absorption fields are the seasonal high water table and the slow percolation in the subsoil and substratum. A drainage system around the absorption field and diversions to intercept runoff from the higher areas will reduce wetness. Enlarging the absorption field or the trench below the distribution lines will improve percolation.

Ra - Raynham very fine sandy loam - The seasonal high water table is at a depth of ½ foot to 2 feet from November to May. Depth to bedrock is more than 60 inches. Main limitation on sites for dwellings with basements is the seasonal high water table. Foundation drains and interceptor drains upslope from construction sites divert runoff and help prevent the damage that the seasonal high water table causes. Soil is better suited for dwellings without basements. Main limitations affecting local roads and streets are the seasonal high water table and frost action potential. Constructing roads on coarse textured fill material will reduce the frost action potential. Raising the level of the fill 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.

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

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reduce wetness.

VaB – Valois gravelly loam, 3 to 8 percent slopes – This gently slopping soil is very deep and well drained. It is on low-lying, gently rolling till plains. 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 in the surface layer and subsoil and moderate to moderately rapid in the substratum. The available water capacity is moderate, and runoff is medium. This soil is well suited to cultivated crops. It is among the best suited soils in the county for food and fiber production. Rock fragments are a slight limitation to cultivation. Erosion is a slight hazard. This soil has no limitations on sites for dwellings with basements. The main limitation of this soil for local roads and streets is the frost-action potential. Constructing roads on coarse textured, raised fill material will reduce the frost-action potential. The main limitation affecting the use of this soil as a site for septic tank absorption fields is slow percolation. Enlarging the absorption field or the trenches below the distribution lines will improve percolation.

Drainage/Wetlands: While the County map only shows wetlands on the pond area where a large area of freshwater emergent wetland is shown at the north end of the pond as well as a small pond to the west of the pond as well as a water course at both ends of the large pond, the Concept Plan drawing shows both Lots 1 and 2 contain a large amount of wetland. Close to one half of Lot 1 is covered with wetland and about one third of Lot 2 has wetland. There will be a small amount of wetland disturbance resulting from construction of the driveway on Lots 1 and 2. At time of site visit, GCAC did not note much wetness on the area of the lots to be development. Not already mention is a small pond at the midpoint of Lot 2. It is presumed that this had been to serve cattle when the property was a farm. A review of the contour lines on the maps already noted the natural drainage is toward the pond area from all three sides.

Septic/Wells: As noted on the Application for Subdivision, and was noted in the May 9th presentation, the plan is to have well water and septic system for both residences. Location of the septic systems needs to be reviewed by County Health department especially since there is a question regarding insufficient distance of the planned location of the septic to the residence. These septic systems will be fill systems. It is GCAC's understanding that this type of system consists of a series of connected chambers. The area around and above the chambers is filled with soil. Pipes carry wastewater from the septic tank to the chambers. In the chambers, the wastewater comes into contact with the soil. Microbes on or near the soil treat the effluent. At time of site visit, owner noted that he was aware that on the drawing of the proposed plan the site of the septic being too close to residence, but plan is to rectify the location.

Visual Impact: Presenter feels that there will be no negative impact from development of Lots 1 and 2 since the buildings will be similar to those already in the neighborhood and also due to the setback from Gardner Road. At time of site visit, GCAC was able to see first hand that the trees on both sides of the planned area for lots 1 and 2 provide adequate screening of the development to negate any visual impact to the neighbors.

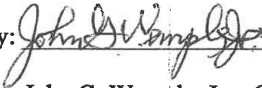
Endangered Species: Presenter noted that studies are underway show nothing so far on the site of concern. Short Environmental Assessment Form notes area may contain Indiana Bat, Northern

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Long-eared Bat and Upland Sandpiper. None observed by GCAC at time of site visit.

Historical Considerations: At the May 9th GCAC Meeting, Presenter noted that archeological report is being put together and shows nothing found on the property and that there will not be anything of disturbance on the large lot. GCAC did not observe anything of historical significance at time of site visit.

Although there is an adjacent area along the east border of Lot 3 identified on County map as being the site of the McNiven Farm Complex which is listed on the National Register of Historical Places with the house dating back to about 1790.

Submitted by:  5/20/22
John G. Wemple, Jr. - Chair



August 4, 2022

Nick Costa, P.E.
Advance Engineering and Surveying, PLLC
11 Herbert Drive
Latham, New York 12110

Re: *Endangered & Threatened Species Evaluation*
6256 Gardner Road
Town of Guilderland, Albany County, New York

Dear Mr. Costa:

Based upon NCES's evaluation of the site, no further studies are required to identify potential rare flora or fauna. No habitat or community types on the property were identified as community types that would harbor endangered, threatened, or rare species of flora or fauna.

The clearing of trees within the winter, between November 1st and March 3st, adheres to both the NYS Dept. of Environmental Conservation (DEC) and US Fish & Wildlife Service (USFWS) Best Management Practices (BMP's) to avoid direct and indirect impact to bat species. By clearing only within that time period, the necessity to obtain an Incidental Take permit from either agency is avoided.

No additional studies are required to satisfy the Section 7 coordination with the USFWS that the US Army Corps of Engineers (USACE) is required to fulfill through the Nationwide permit process. According to Mr. Andy Dangler of the USACE, the additional clearing graphic that shows the potential septic expansion areas was forwarded to the USFWS on August 3, 2022 and they have 10 days to respond, if necessary.

If you have any additional questions, feel free to contact me at any time.

Sincerely,

North Country Ecological Services, Inc.

A handwritten signature in black ink, appearing to read "Stephen P. George", is written over the company name.

Stephen P. George, PWS

25 West Fulton Street, Gloversville, New York 12078 (518) 725-1007 northcountryeco@gmail.com