

3.7 WATER RESOURCES AND WETLANDS COMMENTS AND RESPONSES

3.7.1 Introduction

The Proposed Action presented in this FEIS has been modified from that developed for the DEIS to avoid direct impacts to regulated wetlands and watercourses and minimize impacts to the associated Town regulated control areas (buffers) to the maximum extent practicable (Figure 3.7-1 Town Wetland & Watercourse Control Area (Buffer) Disturbance Map). While the New York City Department of Environmental Protection (NYCDEP) regulates on-site watercourses and limiting distances related to those watercourses and the nearby East Branch Reservoir and associated Reservoir Stems, activities prohibited by the City (e.g. impervious surfaces, subsurface sewage treatment systems) have never been proposed within these limiting distances. In addition, the federal government does not regulate buffers around protected resources. Further, there are no resources on-site that fall under the jurisdiction of the State. As such, the impacts associated with the modified development plan would result in activities regulated and permitted at the municipal level only; City, State and Federally regulated resources would not be impacted.

As part of the modified plan presented in this FEIS, the following have been implemented to minimize impacts to the Town wetland and watercourse control areas (buffers):

1. The office building on Lot 1 has been relocated to eliminate any hard surface improvements in the wetland buffers.
2. The stormwater basin and access road on Lot 1 have been reconfigured to eliminate any disturbance to the wetland buffers as a result of the construction of the stormwater basin; only the outlet structures are located in the buffers.
3. The proposed 14,800 square foot retail building and associated parking on Lot 2 has been reconfigured to remove the building and to eliminate the impervious areas from the Town regulated buffer. The portion of the parking area and access road that remains within the buffer has been proposed as pervious pavement.
4. The stormwater basins have been revised on Lot 2 to reduce the disturbance to the wooded wetland buffers to the maximum extent possible.
5. Directional boring will be used to install the proposed forcemain under the existing watercourse between the proposed retail center and the SSTS area in the eastern portion of the site in lieu of trenching as proposed in the DEIS thereby eliminating disturbances to the stream bed and banks.

3.7.2 Additional Wetland Investigation

Subsequent to the acceptance of the DEIS as complete, three wetlands on the north side of US Route 6, opposite the project site, were delineated and surveyed by the project team. Two of the three, Wetlands C and D, lie partially within parcels now owned by the Applicant. The third is located to the east of Joe's Hill Road on lands not held by the Applicant. These wetlands are depicted on FEIS Figures 1-5, Overall Site Plan and FEIS Figure 3.7-1, Town Wetland Control Area (Buffer) Disturbance Map as well as on the drawing set attached to this FEIS.

In addition to the flagging of these three wetlands, the wetland boundary surrounding the old farm road bridge crossing in Wetland A was refined on December 15, 2008 to accurately represent the wetland boundary where the bridge is located. This bridge crossing will be utilized for access to the proposed SSTS area.

Existing Conditions

Wetland C

Wetland C (approximately 0.08 acre or 3,420 square feet) is located at the toe of the US Route 6/202 embankment, across the street from Wetland B and towards the northwestern corner of the site. This scrub shrub and emergent wetland collects stormwater runoff from the adjacent US Route 6 embankment, discharge from a culvert under US Route 6 conveying water from Wetland B, and likely a small amount of stormwater runoff from US Route 6 to the south and Thomas Road to the north. The collection of water in this area has created a wetland that backs up against the northern embankment of US Route 6 and the southern side of Thomas Road. Surface water can be found in this wetland most of the year. Water from Wetland C drains through a culvert underneath Thomas Road as a NYCDEP mapped stream tributary and Reservoir Stem to the East Branch Reservoir.

The Town of Southeast regulates activities within this wetland and the area bounded by a 133 foot wetland buffer (controlled area) to Wetland C under Chapter 78 of the Town Code. This Town wetland buffer is based on the hydrologic soil groups (HSG) assigned to the mapped soils in the area. Soils within this wetland are Chatfield-Charlton complex (CsD) and Leicester (LcB) as indicated in the Soil Survey of Putnam and Westchester Counties (FEIS Figure 3.7-2, Soils Map). Chatfield-Charlton complex and Leicester soils are both assigned to HSG B.

While it is classified as a Freshwater Forested/Shrub Wetland on the National Wetlands Inventory (NWI) map (FEIS Figure 3.7-3), this area would better be described as a palustrine, emergent, persistent, seasonally flooded/saturated (PEM1E) wetland with a fringe of palustrine palustrine, forested, broad-leaved deciduous, seasonally flooded wetland (PFO1C) wetland. This wetland is not mapped by the New York State Department of Environmental Conservation (NYSDEC) on their Freshwater Wetland Map of the area (FEIS Figure 3.7-4).

Vegetation in the wetland is dominated by herbaceous species including spotted touch-me-not, sensitive and cinnamon ferns, skunk cabbage, and clearweed. Spicebush is among the predominant shrub species in this wetland. Red maple and American elm are present in the tree layer of this wetland.

Wetland D

Wetland D (approximately 0.3 acres or 14,860 square feet) is located on the north side and at the base of the US Route 6 embankment, towards the eastern end of the site, upgradient from the East Branch Reservoir and across the road from Wetland A. This scrub shrub and forested wetland collects stormwater runoff from the adjacent US Route 6 embankment, discharge from a culvert under US Route 6 conveying stormwater from US Route 6, and likely a small amount of stormwater runoff from Farrington Road to the north. Water collects in a depressed area that backs up to the west side embankment of Joe's Hill Road. A culvert conveys water from this wetland under Joe's Hill Road to another wetland on the road's east side off of the Applicant's property. The water table varies depending on the stormwater input to the system and is likely drawn down over the growing season by the existing vegetation.

The Town of Southeast regulates activities within this wetland and the area bounded by the 100 foot wetland buffer (controlled area) to Wetland D under Chapter 78 of the Town Code. This

Town wetland buffer is based on the hydrologic soil groups assigned to the mapped Knickerbocker soil within which this wetland lies as indicated in the Soil Survey of Putnam and Westchester Counties (FEIS Figure 3.7-2, Soils Map). Knickerbocker soils are assigned to HSG B.

This wetland is not depicted on the NWI map (FEIS Figure 3.7-3) or on the NYSDEC Freshwater Wetland Map of the area (FEIS Figure 3.7-4). Wetland D would be best described as a PFO1C wetland combined with a palustrine, scrub/shrub, broad-leaved deciduous, seasonally flooded (PSS1C) wetland portion.

Vegetation in the wetland is dominated by red maple and American elm in the sparse tree canopy. Spicebush can be found in the shrub layer of this wetland. Common herbaceous species in this area include skunk cabbage, spotted touch-me-not and sensitive fern.

Potential Impacts

Town Regulated Resources and Control Area (Buffer) Impacts

Under the modified Proposed Action, there will be no disturbance within the wetlands or watercourses on or in the vicinity of the project site (Figure 3.7-1). Impacts to the Town regulated wetland and watercourse buffers totaling approximately 2.38± acres are depicted on Figure 3.7-1 and outlined below.

The total area of Wetland A buffer disturbance on-site is 45,685± square feet (s.f.) (1.05± acres) and is broken down as follows:

- On-site impervious area = 0.0 s.f. (0.00 acres)
- On-site gravel area = 6,920± s.f. (0.16± acres)
- On-site revegetated areas (pervious) = 38,765± s.f. (0.89± acres)

The total area of Wetland B buffer disturbance on-site is 38,435± s.f. (0.88± acres) and is broken down as follows:

- On-site impervious area = 0.0 s.f. (0.00 acres)
- On-site pervious pavement area = 2,860± s.f. (0.06± acres)
- On-site revegetated areas (pervious) = 35,575± s.f. (0.82± acres)

The total area of Wetland A & D combined buffer disturbance offsite is 13,495± s.f. (0.31± acres) and is broken down as follows:

- Off-site impervious area = 6,585± s.f. (0.15± acres) - (Wetland A = 1,135± s.f. and Wetland D = 5,450± s.f.)
- Off-site revegetated areas (pervious) = 6,910± s.f. (0.16± acres) - (Wetland A = 1,655± s.f. and Wetland D = 5,255± s.f.)

The total area of Wetland B buffer disturbance offsite is 6,600± s.f. (0.15± acres) broken down as follows:

- Off-site impervious area = 0.0 s.f. (0.00 acres)
- Off-site revegetated areas = 6,600± s.f. (0.15± acres)

A significant amount of the wetland buffer disturbances are attributed to grading associated with the creation of the stormwater management features. These features are required by New York State and City regulations to capture and treat stormwater before it discharges off site and

enters the East Branch Reservoir. Impacts to the watercourse buffer would be associated with the installation of the force main between the development area and the SSTS and a portion of the parking area that would be paved with pervious pavers. Direct impact to the watercourse has been eliminated from the Proposed Action through installation of the forcemain via drilling and not trenching.

Impervious surfaces are not proposed within the limiting distances of on-site NYCDEP watercourses and all impacts and development will avoid the reservoir stem and its associated limiting distance.

Mitigation

The wetland buffers on the project site provide water quality and limited hydrologic functions along with general habitat for wildlife. As described in the DEIS, no sensitive wetland species have been identified in, and none would be expected to use, the on-site wetlands, watercourses or their associated buffers. This is important to note as it is a key factor in evaluating the size of the buffer required to maintain existing functions.

The main concern with the buffers at the Stateline Retail Center site is their ability to maintain water quality entering the wetland as sheet flow and their general wildlife characteristics. The buffer disturbance associated with the development of the Project will be temporary with the exception of 2,860 square feet (0.06 acres) of pervious pavement in the southeastern portion of the Wetland B buffer. As such, the development of the project is not anticipated to impact the function of the wetlands, watercourses or the buffers once the proposed mitigation is implemented.

A conceptual wetland and watercourse buffer mitigation plan, looking at impacts from west to east on the project site, follows. Refer to Figure 3.7-5, Wetland-Watercourse Control Area Enhancement Plan for details of the proposed mitigation.

The newly graded slope areas east of Stormwater Basin 2.2P and south of the office building, currently old field within the Wetland B buffer, will be seeded with Native Wildflower and Wildlife Food and Shelter Shrub Mixes to restore the general habitat and water quality functions of the wetland buffer post disturbance. Along US Route 6, the rip-rapped basin outlet area will be planted with shrubs and other native herbaceous species including those documented in the DEIS, FEIS and on Drawings SP-2.1 and D-3 of the plan set.

While the area that will be occupied by the newly graded slopes and the outlet represent a different type of habitat than that which currently exists, it will continue to provide the same wetland buffer functions with the added benefit of increasing wildlife habitat diversity. The modified plan will not introduce impervious surfaces nor result in the permanent impacts in these areas.

A portion of the buffer between Buildings D and E will be filled to prevent leachate generated by the Building E SSTS from seeping into an existing trench and to mitigate for the ongoing erosion of the trench. This fill is not part of the SSTS grading but was deemed prudent to prevent any future seepage. Impacts to the existing forest are not expected. The area will be backfilled and seeded with a shade tolerant mix of herbaceous species to maintain water quality functions. The habitat here will remain largely the same after development.

The impact to water quality related functions in the wetland buffer resulting from the development of the proposed Retail Building D access drive will be offset through the installation of pervious pavement over most of the area and through holding and treating the runoff from the impervious surface in Stormwater Basin 2.0P. The newly graded slopes lying within the buffer will be planted with the same combination of seed mixes noted for use on slopes previously. This will restore the general habitat functions of the wetland buffer to the maximum extent practicable.

The habitat type immediately adjacent to Wetland B is not particularly critical since this wetland was not found to support any sensitive wetland-dependent species. The more critical aspect therefore is the maintenance of stormwater filtering by vegetation. The buffer impacts related to the installation of stormwater basin 2.0P would be negligible. The only difference between the pre-and post-development functions would be a change in the type of habitat present. All other functions performed by this buffer would remain. The newly graded basin and slopes areas will be planted as noted on Figure 3.7-5. As on the west side of Wetland B, the rip-rapped basin outlet area will be planted with shrubs and other native herbaceous species including those documented in the DEIS, FEIS and on Drawings SP-2.1, SP-2.2 and D-3 of the plan set.

Mitigation for incursion into the Wetland A buffer resulting from the development of Stormwater Basin 1.1P in the northeast corner of the proposed retail center would be identical to that for Stormwater Basin 2.2P with the same result.

Impacts to the Wetland A buffer related to the grading and retaining wall required for the access road and easternmost parking area would be offset through seeding (refer to Figure 3.7-5) to revegetate the impacted area. Habitat type within the buffer would change but the functions performed by the area in protecting the wetland resources would not be lost.

The portion of the Town regulated buffer to be temporarily disturbed by the installation of the forcemain will be restored to pre-disturbance grades and seeded with native upland vegetation as documented on Figure 3.7-5. Since the completion of the DEIS the plan has been modified to install the forcemain through the use of drilling instead of trenching thereby eliminating direct impacts to the regulated watercourse. In addition, the new plan eliminates all proposed parking and road surfaces from the buffer. As such, there would be no long-term or permanent significant impacts to the regulated wetland or watercourse buffers.

Mitigation for off-site buffer impacts including those required to widen US Route 6 have not been proposed as part of this plan. All off-site buffer impacts fall within the US Route 6 right of way. Impacts to Wetland B buffer would result from the development of Stormwater Basins 2.0P and 2.2P. Land cover type will change from a typical roadside embankment to rip-rapped basin outlets planted with shrubs and native herbaceous materials. Upon completion of the development, water quality functions would remain the same and habitat will likely improve.

Wetland A buffer off-site will be impacted in two areas totaling 275 square feet (less than 0.01 acre). The eastern most portion of the buffer, which was previously disturbed in the area where the existing farm road (future SSTS access road) intersects with US Route 6, will be covered with gravel to stabilize the entrance. The western most portion of the buffer will be graded for the installation of Stormwater Basin 1.1P. Upon completion of the development, the area will be seeded with a native mix to establish habitat. The water quality function of this portion of the buffer will be unchanged.

Impacts to the Wetland D buffer will result from grading for the Stormwater Basin 1.1P as well as the grading and paving of the main entrance road. This portion of the buffer is located on the opposite side of US Route 6 from Town regulated resource and provides no functional support for the wetland, therefore, mitigation is not proposed.

As noted in the DEIS, after a qualitative analysis of the mitigation measures for the proposed buffers and watercourse disturbance, it is the Applicant's assessment that the proposed restoration of these areas, returning them to their existing cover type and land use (vegetated) and planting them with native and habitat appropriate vegetation, would restore or enhance habitat and, therefore, adequately offset impacts. Where disturbance in the wetland buffer would remain upon completion of the project, the use of porous pavers would minimize impacts.

As a result of the proposed mitigation, no significant permanent impacts to either the regulated resources or buffers are expected to result from the development of the Proposed Action.

3.7.3 Comments and Responses

Comment 3.7-1 (Mr. Jesse M. Vazquez, PhD., Letter #2, September 28, 2008): In Appendix Q, the Conclusions section of Mr. Marino's report, he suggest[s] that the area in question does not meet the definitions of a Town regulated wetland, and he asks Mr. Cuomo, Wetland Inspector, to finalize the confirmation of the wetland delineation for this proposal.

What this layman wonders is what degree of freedom do we have to simply "discount" the NRCS report which mapped the area as containing hydric soil indicators? If wetland indicators were present in the "recent past," how recent is this, and what conditions might cause them to change in the near future? When Mr. Cuomo says that "the site inspection generally supports TMA's finding that, despite being mapped as containing hydric soil, field indicators of "hydric soils are largely lacking through the majority of the area of concern". What does it not support, and how close to the "area of concern" are these indicators? Is this a fine line in the measure or are we saying that there are significant discrepancies that can be easily dismissed? And who would the final arbiter of this "judgment call" be?

And further, in the soil verification statement where it states that the majority of the "soil pits examined fall **just short**and therefore does not meet the Federal definition of hydric soil." Again, how close is close and what about the remaining parts that do indicate a hydric soil presence? Basically, how common is it to simply discount NRCS findings in an area, when there seem to be other indicators that suggest that this might be a problem in the future. Can this be clarified? Is it being suggested that the NRCS reports were a snapshot a few years ago and that these indicators have shifted? Or are we talking about conditions that ebb and flow with water flow and seasonal rainfall? If so, will these conditions return to such an extent that the "area of concern" will impact this watercourse way? This is not clear to the lay person's eye.

Response 3.7-1: *As noted by the US Department of Agriculture, Natural Resource Conservation Service (NRCS), the organization responsible for Federal portion of the Nation Cooperative Soil Survey "Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by the understanding of the soil-vegetation-landscape relationship, are*

sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.”

As the process for developing the boundaries is a verification of a prediction, discrepancies of hundreds of feet between the mapped boundary and the actual boundary of a soil type are not uncommon. Field verification is the best way to confirm the approximate boundary. The field observations of the soil type(s) within the area “mapped” as hydric by the NRCS noted in the DEIS Appendix Q report indicate that, in fact, they are not hydric as hydric soil indicators were not observed. This determination was based on an assessment of the subject soils by a wetland delineator and a Professional Wetland Scientist (PWS) on staff at Tim Miller Associates, Inc. The conclusion was verified by two Town Wetland Consultants as accurate. It should be noted that, unlike wetland plants, soil characteristics do not change seasonally or even yearly. To develop hydric soil characteristics land must be subject to surficial or shallow ground water for years at a time.

For reference, the US Army Corps of Engineers, the agency in charge of regulating wetlands at the Federal level, defines hydric soil as follows: The definition of a hydric soil is a soil that formed under conditions of saturation, flooding or ponding long enough during the growing season to develop anaerobic conditions in the upper part. Field indicators are used to determine if a soil meets this definition. According to the Corps of Engineers Wetlands Delineation Manual (Wetlands Research Program Technical Report Y-87-1), these indicators include a number of characteristics, the most diagnostic of the group being the color of various soil components.

The report in Appendix Q of the DEIS identifies the soil colors for each layer of a Fredon Loam, the hydric soil mapped by the NRCS in the area of concern. Using Munsell Soil Color Charts, soil in test pits were assessed and found to show the characteristics of Sutton Loam, a common inclusion in Fredon Loam mapped areas and a non-hydric soil. As a result the area would not meet the requirements set forth in the Town Code as regulated wetland. Both Town Wetland Consultants performed similar assessments over the area in question and agreed with the above conclusion.

Comment 3.7-2 (Mr. Jesse M. Vazquez, PhD., Letter #2, September 28, 2008): P. 3.7-9- Water Resources regarding the “qualitative” analysis of the mitigation measures. What exactly are the data that are used to support this conclusion? How do we know for sure that the Proposed Action will result in “no significant permanent impact to either the regulated resources or buffer”? I see no tables or analysis data in the Appendix supporting this conclusion, so how do we come to determine that this is indeed a valid and reliable finding and conclusion? This is especially worrisome with a project of this size being so close to the waterways and to the actual East Branch Reservoir.

Response 3.7-2: *As noted in the comment the DEIS states that “In a qualitative (emphasis added) analysis of the mitigation measures for the proposed buffers and watercourse disturbance, it is the Applicant’s assessment that the proposed restoration of these areas, returning them to their existing cover type and land use and planting them with native and habitat appropriate vegetation, would enhance habitat and,*

therefore, adequately offset impacts.” A qualitative analysis is one that is subjective (i.e., based on best professional judgment).¹

The DEIS goes on to state “Where disturbance in the watercourse buffer would remain upon completion of the project, the use of porous pavers would minimize impacts. As a result, no significant permanent impacts to either the regulated resources or buffers would result from the Proposed Action.”

Refer to Section 3.7.1 Introduction for a list of changes that have been implemented to minimize impacts to the wetland and watercourse buffers.

It should be noted that a “Quantitative Analysis” is one “...that uses environmental variables represented by numbers or ranges, often accomplished by numerical modeling or statistical Analysis.”² This level of assessment was not called for in the Scope adopted for this EIS by the Lead Agency and is not needed to make findings.

Comment 3.7-3 (Mr. Donald J. Cuomo, Blu Dot Inc., Letter #3, September 16, 2008):

Regarding storm water detention basins 2.2 P, 2.0P; Alternate designs should be investigated in an effort to eliminate or further reduce the proposed incursions into the wetland controlled areas. Given the topography in this region of the site, it would appear that minor modifications to the shape of these basins could, at a minimum, reduce the amount of buffer disturbance.

Response 3.7-3: *The Stormwater Pollution Prevention Plan has been updated to comply with the requirements of Chapter 10: Enhanced Phosphorus Removal Standards from the New York State Stormwater Management Design Manual due to the new rainfall data from Chapter 10. As a result certain stormwater management basins had to be enlarged. While this was the case for 2.0P and 2.2P both basins were modified to reduce impacts to the Town regulated buffer to the greatest extent practicable. Basin 2.0P was revised so it is located 100’ from the NYCDEP perennial watercourse, and 2.2P was re-graded and is now completely outside the buffer area.*

Comment 3.7-4 (Mr. Donald J. Cuomo, Blu Dot Inc., Letter #3, September 16, 2008):

Regarding retail building D and the associated parking lot; Again, alternate designs should be considered in an effort to eliminate or further reduce the proposed incursions into the wetland controlled areas.

Response 3.7-4: *In the modified Proposed Action the 14,800 square foot retail building (Building D) and most of associated parking area have been moved out of the wetland buffer. The portion of the parking area and access road that remains within the buffer are proposed as pervious pavement thereby further reducing the impact to this Town regulated “buffer”.*

¹ Cumulative Effects Assessment Practitioners Guide, 10/7/03. http://www.acee-ceaa.gc.ca/013/0001/0004/a_e.htm.

² National Oceanic and Atmospheric Administration, U.S. Department of Commerce, website http://www8.nos.noaa.gov/coris_glossary/index.aspx?letter=q

Comment 3.7-5 (Mr. Donald J. Cuomo, Blu Dot Inc., Letter #3, September 16, 2008):

Regarding paragraph two of section 3.7.2 (Existing Conditions); As the proposed plan does involve some wetland disturbance, please provide an update on the ACOE jurisdictional determination and any correspondence that has been sent to or received from the ACOE.

Response 3.7-5: The wetland disturbance proposed under the DEIS plan related to a trench required across Watercourse NYC-B for the installation of the wastewater forcemain between the buildings and the subsurface treatment system. The modified plan eliminates this aspect of the proposed action through the use of directional boring under the subject watercourse to install the forcemain.

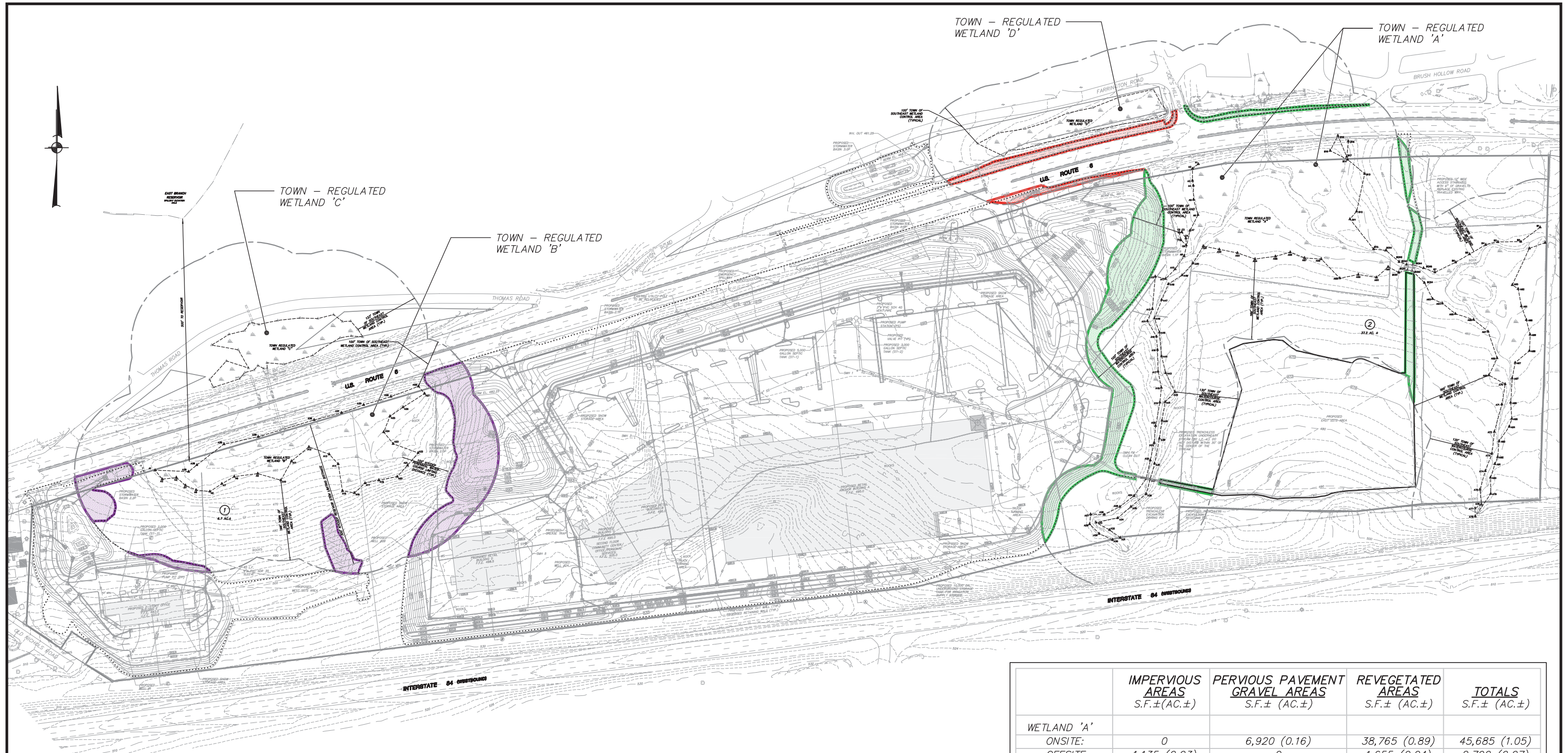
Comment 3.7-6 (Mr. Donald J. Cuomo, Blu Dot Inc., Letter #3, September 16, 2008):

Regarding paragraph six of section 1.5.7 (Water Resources and Wetlands) and paragraph two of Section 3.7.3 (Potential Effects of the Proposed Project); To minimize impacts to the stream corridor and the associated buffer, the waste water lines should be installed by drilling them under the stream bed, unless it can be demonstrated that drilling will have a more deleterious effect on the stream corridor and associated controlled areas.




Response 3.7-6: Refer to Response 3.7-5.

Comment 3.7-7 (AKRF, Letter #4, September 29, 2008): A figure showing proposed improvements superimposed on watercourse and wetlands and their regulated buffers would be useful. This figure should highlight the proposed location and extent of disturbance within the buffers.

Response 3.7-7: A figure showing proposed improvements superimposed on watercourses and wetlands and their regulated buffers has been prepared and is included in the FEIS; refer to Figure 3.7-1, Wetland Control Area (Buffer) Disturbance Map.



TOTAL TOWN WETLAND-WATERCOURSE CONTROL AREA DISTURBANCE

	WETLAND 'A' 48,475 S.F. ± (1.12 AC. ±)
	WETLAND 'B' 45,035 S.F. ± (1.03 AC. ±)
	WETLAND 'D' 10,705 S.F. ± (0.24 AC. ±)

WETLAND CONTROL AREA DISTURBANCE MAP
 DATE: NOVEMBER 24, 2008
 SCALE: 1" = 200'

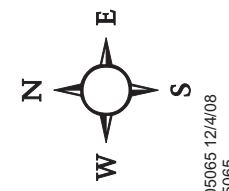
	IMPERVIOUS AREAS S.F.±(AC.±)	PERVIOUS PAVEMENT GRAVEL AREAS S.F.± (AC.±)	REVEGETATED AREAS S.F.± (AC.±)	TOTALS S.F.± (AC.±)
WETLAND 'A'				
ONSITE:	0	6,920 (0.16)	38,765 (0.89)	45,685 (1.05)
OFFSITE:	1,135 (0.03)	0	1,655 (0.04)	2,790 (0.07)
WETLAND 'B'				
ONSITE:	0	2,860 (0.06)	35,575 (0.82)	38,435 (0.88)
OFFSITE:	0	0	6,600 (0.15)	6,600 (0.15)
WETLAND 'D'				
ONSITE:	0	0	0	0
OFFSITE:	5,450 (0.12)	0	5,255 (0.12)	10,705 (0.24)
TOTALS	6,585 (0.15)	9,780 (0.22)	87,850 (2.02)	104,215 (2.39)

Figure 3.7-1 Town Wetland & Watercourse Control Area (Buffer) Disturbance Map
 Stateline Retail Center
 Town of Southeast, Putnam County, NY
 Source: Insite Engineering, Surveying & Landscape Architecture, P.C.
 Drawing Date: November 24, 2008
 Scale: As shown



Figure 3.7-2: Soils Map
 StateLine Retail Center
 Town of Southeast, Putnam County, New York
 Source: Soil Survey of Westchester and Putnam Counties, NY
 U.S. Dept. of Agriculture, Soil Conservation Service
 Scale: Graphic

KEY	
LcB	Leicester loam, 3 to 8 percent slopes, stony
KnB	Knickerbocker fine sandy loam, 2 to 8 percent slopes
PnC	Paxton fine sandy loam, 8 to 15 percent slopes
Fr	Fredon silt loam
[Red dashed line]	Site Property Boundary



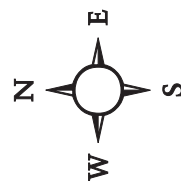
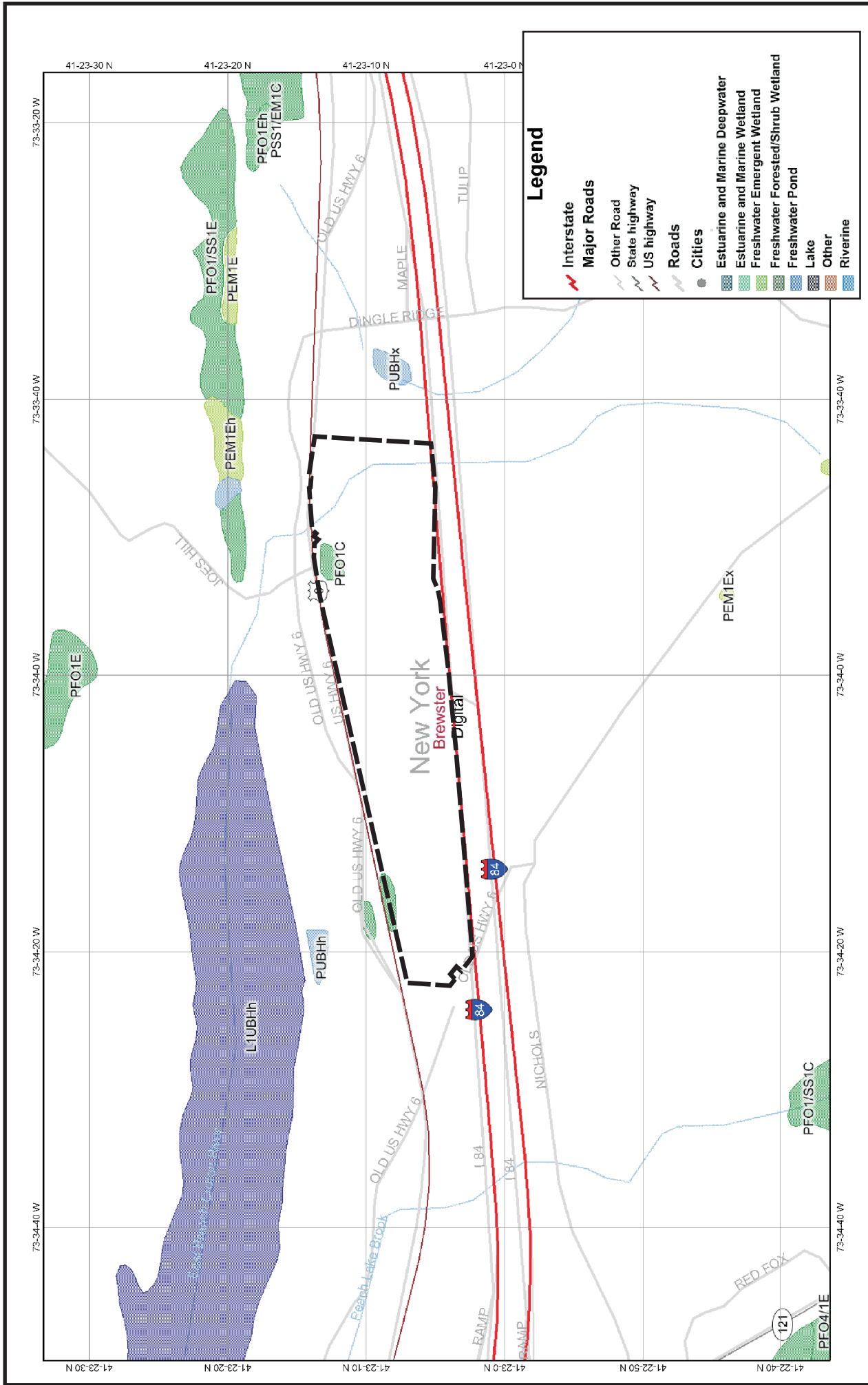


Figure 3.7-3: National Wetlands Inventory Map
 Stateline Retail Center
 Town of Southeast, Putnam County, New York
 Source: U.S. Dept of the Interior
 Scale: 1" = 785'

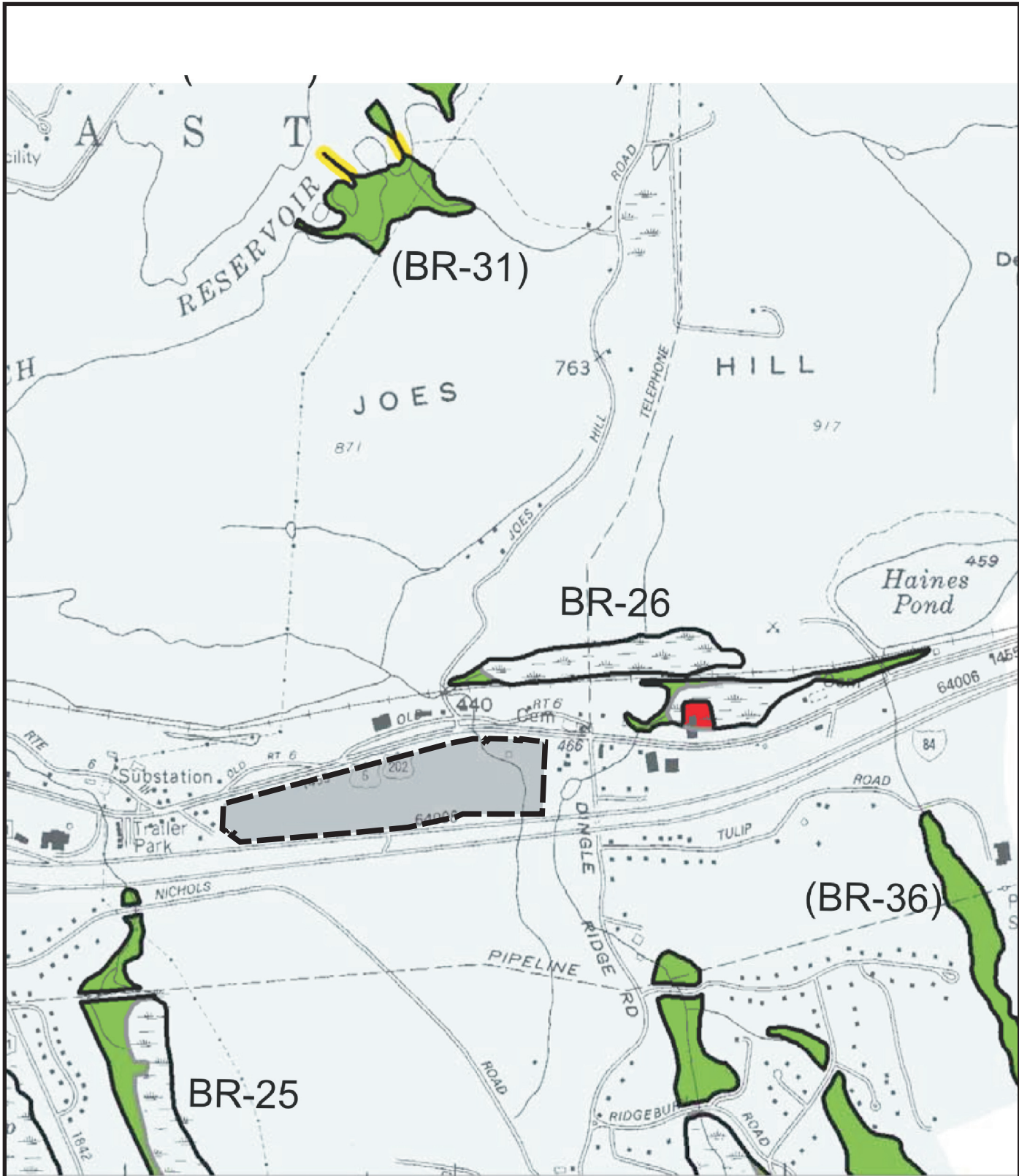
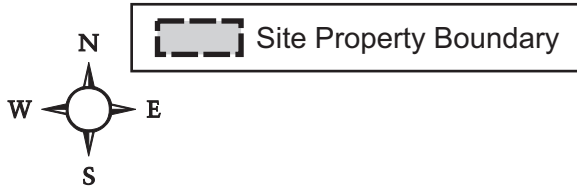


Figure 3.7-4: NYSDEC Freshwater Wetlands
 Stateline Retail Center
 Town of Southeast, Putnam County, New York
 Base Map: NYS DEC Wetland Map, Brewster Quad



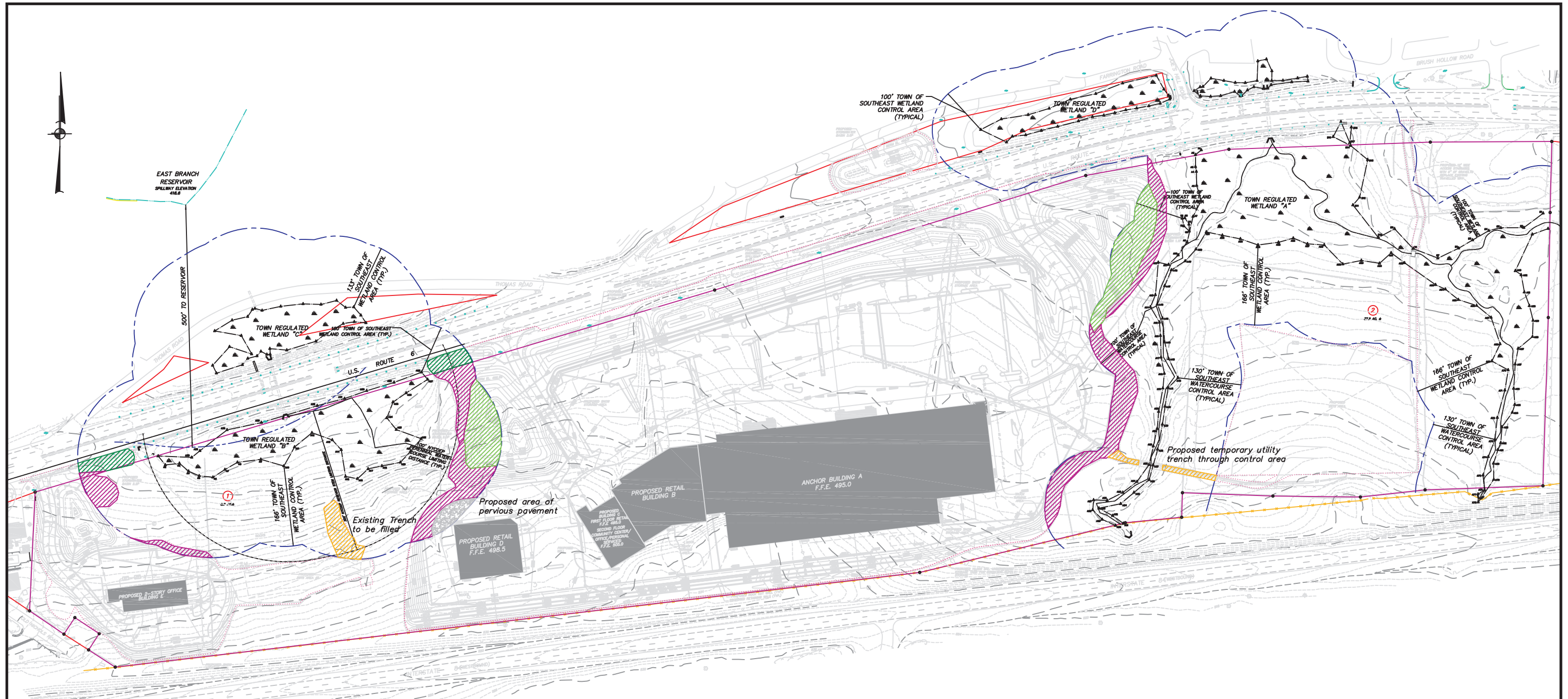


FIGURE 3.7-5
WETLAND-WATERCOURSE
CONTROL AREA ENHANCEMENT PLAN





-  Newly graded slope areas to be seeded with mix of Showy Northeast Native Wildflower mix (ERNMX-153 or equivalent) at 7.5 lbs. per acre and Wildlife Food and Shelter Shrub Mix (ERNMX 138) at 7.5 lbs. per acre
-  Newly graded basin areas to be seeded with Showy Northeast Native Wildflower mix (ERNMX-153 or equivalent) at 15 lbs. per acre on slopes and Retention Basin Floor Seeding for Wildlife and Plant Diversity (ERNMX-127 or equivalent) at 15 lbs. per acre
-  Rip-rapped basin outlet areas to be stabilized with rip-rap and planted with shrubs and native herbaceous species
-  Areas of temporary control area disturbance to fill existing abandoned channel or temporary trench for utility lines. Following backfill to be seeded with Partially Shaded Area Roadside Mix (ERNMX-140 or equivalent) at 15 lbs. per acre

Figure 3.7-5: Wetland - Watercourse Control Area (Buffer) Enhancement Plan
 Stateline Retail Center
 Town of Southeast, Putnam County, NY
 Source: Insite Engineers, 11/20/08
 Scale: 1" = 200'

