



## Wayland Conservation Commission Attachment to Order of Conditions

to accompany Mass. Wetlands Prot. Act M.G.L. c. 131, §40 Order of Conditions

DEP File Number:

**322-0897**

Provided by DEP

**Date of Issue: October 4, 2018**

**Applicant: Chris D'Antonio,**

**Owner: Windsor Place LLC**

**Project Location: 24 School Street**

**Map and Lot Number(s): Map 52 Lot 189**

### **Project Description:**

The project involves the demolition of the existing house and barn and construction of twelve-two and three bedroom townhomes, parking area, access drives, utility work, and septic system with stormwater management and temporary erosion controls within the wetland buffer zone at 24 School Street.

### **Decision:**

The Wayland Conservation Commission (Commission) voted on September 27, 2018 to deny the project at 24 School Street under the Wetlands Protection Act (the Act). The Commission finds that the project as proposed cannot be conditioned to meet the performance standards set forth in the Regulations at 310 CMR 10.53, 310 CMR 10.54, 310 CMR 10.55, and 310 CMR 10.56 for protection of those areas found to be significant to one or more of the interests identified in M.G.L. C. 131 § 40. Therefore, this Order of Conditions – Denial prohibits the work from going forward unless and until a new Notice of Intent is submitted which provides measure adequate to protect the interests of the Act.

### **This decision was based on the following Plans and Documents:**

1. Memo on proposed development dated February 22, 2017, Prepared by Linda Hansen for Sarkis Sarkisian.
2. Memo on Application for Comprehensive Permit dated July 24, 2017, Prepared by Linda Hansen for ZBA, Geoff Larsen.
3. Notice of Intent dated September 2017, Prepared by Metrowest Engineering Inc., for Windsor Place, LLC.
4. Stormwater Report, Proposed Site Redevelopment, Prepared by Metrowest Engineering Inc., dated September 2017, received July 19, 2018.
5. Hydrologic Analysis: Proposed Site Redevelopment dated September 2017, revised on May 2018, Prepared by Metrowest Engineering Inc., for Windsor Place, LLC.
6. Stormwater Report: Proposed Site Redevelopment dated September 2017, revised on June 2018, Prepared by Metrowest Engineering Inc., for Windsor Place LLC.
7. Existing Conditions Site Plan #24 School Street Wayland, MA prepared by Metrowest Engineering Inc., dated May 23, 2017, revised on January 5, 2018, signed and stamped by Robert A. Gemma, P.E. 31967 P.L.S. 37046, scale: 1"=20'.
8. Proposed Layout Plan # 24 School Wayland, MA prepared by Metrowest Engineering Inc., dated September 6, 2017, revised on April 20, 2018, July 5, 2018 and August 21, 2018, signed and stamped by Robert A. Gemma, P.E. 31967 P.L.S. 37046, scale: 1"=20'.
9. Proposed Grading Plan # 24 School Wayland, MA prepared by Metrowest Engineering Inc., dated September 6, 2017, revised on April 20, 2018, July 5, 2018 and August 21, 2018, signed and stamped by Robert A. Gemma, P.E. 31967 P.L.S. 37046, scale: 1"=20'.



**Wayland Conservation Commission**  
**Attachment to Order of Conditions**  
to accompany Mass. Wetlands Prot. Act M.G.L. c. 131, §40 Order of Conditions

DEP File Number:

**322-0897**

Provided by DEP

10. Proposed Site Plan # 24 School Wayland, MA prepared by Metrowest Engineering Inc., dated September 6, 2017, revised on April 20, 2018, July 5, 2018 and August 21, 2018, signed and stamped by Robert A. Gemma, P.E. 31967 P.L.S. 37046, scale: 1"=20'.
11. Erosion and Sediment Control Plan #24 School Street, Wayland MA prepared by Metrowest Engineering Inc., dated September 6, 2017, signed and stamped by Robert A. Gemma, P.E. 31967 P.L.S. 37046, scale: 1"=20'.
12. Proposed Details Plan # 24 School Wayland, MA prepared by Metrowest Engineering Inc., dated September 6, 2017, revised on April 20, 2018, July 5, 2018 and August 21, 2018, signed and stamped by Robert A. Gemma, P.E. 31967 P.L.S. 37046.
13. General Civil and Stormwater Management Peer Review Services Letter dated September 11, 2017, Prepared by TEC (The Engineer Corp) for Jonathan Sachs, ZBA.
14. Memo on Windsor Place, 24 School Street Project dated September 26, 2017, Prepared by Paul Brinkman, Town Engineer for Geoff Larsen, Building Commissioner.
15. Comment Letter on 24 School Street, Wayland 40B Application dated October 2, 2017, Prepared by Scott Horsley for Sherre Greenbaum, Conservation Commission.
16. Notice of Intent Application withdrawal of Chapter 194 Application dated October 4, 2017, Prepared by Metrowest Engineering, Inc. for Linda Hansen, Conservation Administrator.
17. Comment Letter in response to Creative Land & Water Engineering, LLC's 8 Interests of the Act, dated October 5, 2017, Prepared by Linda Hansen for Creative Land & Water Engineering.
18. Comment Letter on removal of trees, shrubs and plants located in the 100 ft. buffer zone dated October 5, 2017, Prepared by Sheila Carel for the Conservation Commission.
19. Soil Condition in Disturbed Area and WPA Performance Analysis Letter dated October 5, 2017, Prepared by Creative Land & water Engineering, LLC for Linda Hansen and Conservation Commission.
20. Civil/Stormwater Peer Review dated October 6, 2017, Prepared by TEC (The Engineering Corp) for Zoning Board of Appeals.
21. Comment Letter on property boundary lines dated October 5, 2017, Prepared by Nancy Leifer.
22. Email Correspondence on Civil Peer Review by TEC and hiring of an additional Peer Reviewer dated October 10, 2018, Prepared by Joseph Peznola for Linda Hansen and Julia Junghanns.
23. Memo on 24 School Street- Windsor Place CH 40B Affordable Housing Project dated October 31, 2018, Prepared by The Board of Health Julia Junghanns for The Zoning Board of Appeals.
24. Email Correspondence on Title Search dated November 2, 2017, Prepared by Paul Brinkman for Geoff Larsen, Julia Junghanns, and Linda Hansen.
25. Comment Letter on 24 School Street Property dated November 16, 2017, Prepared by Mark A. Kablack for Linda Hansen.
26. Extended Full Search Title Report for 24 School Street dated November 20, 2017, Prepared by Walor Title Services, LLC Kevin P. Walor, Esq. for Town of Wayland.
27. Comment letter on 24 School Street 40B Application dated November 21, 2018, Prepared by Michael W. Wiggins for Sherre Greenbaum.
28. Notice of Intent Stormwater Review Peer Review Services Letter dated December 20, 2017, Prepared by Nover-Armstrong Associates, Inc. for Linda Hansen.
29. Email Correspondence on 24 School Street- Windsor Place dated January 29, 2018, Prepared by Linda Hansen for Joseph Peznola and Julia Junghanns.
30. Comment Letter on 24 School Street- Windsor Place- timely issues dated February 5, 2018, Prepared by Julia Junghanns for Board of Health.
31. Comment memo on 24 School Street – Windsor Place, dated February 20, 2018, Prepared by Paul Brinkman, Town Engineer



## Wayland Conservation Commission Attachment to Order of Conditions

to accompany Mass. Wetlands Prot. Act M.G.L. c. 131, §40 Order of Conditions

DEP File Number:

**322-0897**

Provided by DEP

32. Slug Test and Groundwater Mounding Analysis Report dated February 28, 2018, revised on March 1, 2018 and May 7, 2018, Prepared by Creative Land & Water Engineering, LLC for Linda Hansen.
33. Comment letter for 24 School Street Wayland, MA dated March 1, 2018, Prepared by Mark A. Kablack for Linda Hansen, Conservation Commission and Elizabeth Reef, ZBA.
34. Comment letter for 24 School Street, Wayland 40B Application dated March 7, 2018, Prepared by Scott Horsley for Sherre Greenbaum, Conservation Commission.
35. 24 School Street- Mounding Calculations/Stormwater Review dated March 9, 2018, Prepared by Ruth McCawley Geoffroy, AICP, Nover-Armstrong Associates, Inc. for Wayland Conservation Commission.
36. Comment letter for 24 School Street dated May 7, 2018, Prepared by Weston Patrick, Michael W. Wiggins for Sherre Greenbaum, Conservation Commission.
37. 24 School Street- Mounding Calculations/Stormwater Review Comment Response dated May 8, 2018, Prepared by Creative Land & Water Engineering, LLC for Linda Hansen, Conservation Commission.
38. 24 School Street- Mounding Calculations/Stormwater Review Letter dated May 24, 2018, Prepared by Henry T. Nover, P.E. Nover-Armstrong Associates, Inc. for Linda Hansen, Conservation Commission.
39. 24 School Street- Mounding Calculations/Stormwater Review dated June 6, 2018, Prepared by Henry T. Nover, P.E. Nover-Armstrong Associates, Inc. for Linda Hansen, Conservation Commission.
40. Comment Response to Nover-Armstrong Letter dated June 6, 2018, Prepared by Metrowest Engineering Inc., dated July 18, 2018 for Linda Hansen, Conservation Commission.
41. Comment Letter on 24 School Street dated June 8, 2018, Prepared by Scott Horsley for Sherre Greenbaum, Conservation Commission and Jonathan Sachs, ZBA.
42. Comment letter 24 School Street Comprehensive Permit per Chapter 40B dated June 11, 2018, Prepared by Weston Patrick, Michael W. Wiggins for Jonathan Sachs, ZBA and Sherre Greenbaum, Conservation Commission.
43. Comment Letter for 24 School Street- Mounding Calculations/Stormwater Review dated June 12, 2018, Prepared by Creative Land & Water Engineering, LLC for Conservation Commission.
44. Comment Letter for 24 School Street, Wayland MA dated June 15, 2018, Prepared by Creative Land & Water Engineering, LLC for Conservation Commission and Zoning Board of Appeals.
45. 24 School Street- Mounding Calculations/Stormwater Review dated June 21, 2018, Prepared by Creative Land & Water Engineering, LLC for Linda Hansen and Conservation Commission.
46. Comment Letter on 24 School Street, Wayland MA dated July 1, 2018, Prepared by Scott Horsley for Sherre Greenbaum, Conservation Commission and Jonathan Sachs, ZBA.
47. Comment Letter on 24 School Street Comprehensive Permit per Chapter 40B dated July 5, 2018, Prepared by Weston Patrick, Michael W. Wiggins for Jonathan Sachs, ZBA and Sherre Greenbaum, Conservation Commission.
48. Comment Letter on Windsor Place, 24 School Street, Wayland MA dated July 18, 2018, Prepared by Metrowest Engineering, Inc. for Henry T. Nover, P.E.
49. 24 School Street- Stormwater Review Follow-up dated August 1, 2018, Prepared by Henry T. Nover, P.E., Nover-Armstrong Associates, Inc. for Linda Hansen, Conservation Commission.
50. Comment Letter on 24 School Street, Wayland 40B Application dated August 17, 2018, Prepared by Scott Horsley for Sherre Greenbaum, Conservation Commission.
51. Comment Memo on 24 School Street – Windsor Place, dated August 15, 2018, Prepared by Paul Brinkman, Town Engineer.
52. Response to Comments at the hearing and updated WPA Performance Analysis, NOI, 24 School Street Letter dated August 15, 2018, Prepared by Creative Land & Water Engineering, LLC for Linda Hansen and Wayland Conservation Commission.



## Wayland Conservation Commission Attachment to Order of Conditions

to accompany Mass. Wetlands Prot. Act M.G.L. c. 131, §40 Order of Conditions

DEP File Number:

**322-0897**

Provided by DEP

53. Response to Comments at the hearing and updated WPA Performance Analysis, NOI, 24 School Street Letter dated August 15, 2018, Prepared by Creative Land & Water Engineering, LLC for Linda Hansen and Wayland Conservation Commission.
54. Scott Horsley Presentation on Transient vs. Steady State Modeling dated August 23, 2018, Prepared by Scott Horsley for the Conservation Commission.
55. 24 School Street, Wayland 40B Applications Comment Letter dated September 10, 2018, Prepared by Scott Horsley for Sean Fair, Conservation Commission.
56. Comment Letter for 24 School Street Missed Submittal Deadlines and Hearing Continuances dated August 6, 2018, Prepared by Linda Hansen for Chris D'Antonio.
57. Comment Letter Response on Windsor Place, 24 School Street, Wayland MA dated August 15, 2018, Prepared by Mark A. Kablack for Linda Hansen, Conservation Commission.

### Findings:

1. The Applicant filed a Notice of Intent on September 6, 2017 for the demolition of the existing house and garage and abandonment of the existing septic system and the construction of twelve townhouses, parking area, access drive, utility work, septic system, and stormwater management at 24 School Street located within the buffer to a bordering vegetated wetlands. The scope of project includes the removal of eight mature trees ranging in caliper size from 8 to 20 inches. The public hearing was closed on September 13, 2018.
2. The Commission finds the site significant to all the interests checked on page 2 of the state Order of Conditions, with either the absence of or insufficient evidence presented by the applicant to rebut any of these presumptions.
3. An Order of Resource Area Delineation was issued by the Commission on November 24, 2015 under DEP file number 322-0845. The wetland resource area boundaries and the stream were field delineated by Desheng Wang of Creative Land & Water Engineering, LLC on December 15, 2014 and June 18, 2015. The Commission found the stream located approximately 40 feet east of the property boundary to be intermittent under the Act and confirmed the wetland locations as shown on the site plans.
4. The Commission finds that approximately 15,400 square feet of the proposed project is within areas subject to jurisdiction (wetland buffer). The project site has an area of 37,865 square feet.
5. The Commission finds that the project is located 17 feet from the adjacent bordering vegetated wetland (BVW) and 45 feet from the intermittent stream. The intermittent stream is a fragile headwater tributary to Snake Brook which flows into Lake Cochituate. Lake Cochituate is within a Zone 1 water protection district for the Town of Natick's six public supply wells. The project site is approximately 1,000 feet from Snake Brook and less than one mile from Lake Cochituate.

### Reasons for Denial:

The Commission finds that the information submitted by the applicant is not sufficient to describe the site work or the effect of the work on the interests of the Act. Specifically, the applicant has failed to provide:

1. A hydrogeologic study using a detailed numerical flow model such as the USGS MODFLOW demonstrating that the increases in the Project's proposed stormwater infiltration and recharge of the groundwater will not result in a significant rise of the groundwater level that will have adverse impacts on the adjacent wetland and/or the proposed Project or abutting infrastructure.
2. Plans and details for adequate dissipation of the stormwater runoff from the rear roof (westerly) of the 7-Unit building clearly demonstrating that discharge velocities will not cause erosion or contribute to sediment transport to the wetlands.



## Wayland Conservation Commission Attachment to Order of Conditions

to accompany Mass. Wetlands Prot. Act M.G.L. c. 131, §40 Order of Conditions

**322-0897**

Provided by DEP

3. Plans and details of the proposed retaining walls showing dimensions of wall components including footings, drainage and setback from the abutting Town of Wayland property.
4. Presumption concerning 310 CMR 15.000: The State Environmental Code, Title 5. Since the Board of Health has not confirmed the SSDS meets Title 5 by issuance of an approval, then the presumption concerning 310 CMR 15.000 has not been overcome, the Commission cannot currently assume that the subsurface sewage disposal system protects the eight interests identified in the Act.
5. According to the plans, the subsurface infiltration system BMP does not have the required 2 feet of separation from seasonal high groundwater. The March 12, 2018 groundwater level in MW 3 was 160.14 feet. On the plans and calculations by MWE, the bottom of the 3.0' high subsurface infiltration precast structure is 162.25. The bottom of crushed stone under the BMP is 161.25 feet. The design does not provide 2 feet of separation from seasonal high groundwater, therefore, Commission cannot assume the stormwater management system will protect the interests of the Act - specifically, protection of groundwater supply, flood control, prevention of pollution.
6. Hydraulic analysis that demonstrates the culvert system under East Plain Street can support the additional stormwater volume from the project site. The area downstream of the culvert system has documented problems with flooding and the additional stormwater volume could cause upstream flooding of the existing culverts.

### Interest 1: Protection of Public and Private Water Supply

The leach field is approximately 60 feet from the bordering vegetated wetlands (BVW) and 100 feet from the top of bank. The applicant proposes to install an I/A septic system designed to reduce total suspended solids and oxygen demand; however, the system is not designed to reduce nitrogen, phosphorus, bacterial and pathogen levels in the leachate or other potential contaminants. Over a million gallons of leachate will be generated from this system per year that has the potential to impact the water quality of the public and private water supplies. The proposed septic system has not been approved by the Board of Health.

The overflow from the subsurface stormwater management system is directed to a level spreader that is located approximately 35 feet from the BVW and 60 feet from the intermittent stream. The subsurface stormwater management system has the capacity to capture a two-year storm (3.24 inches/24 hour) and larger storms will be directed to the level spreader and discharged to the adjacent property partially untreated. The applicant did not provide sufficient proof that discharges from the septic leach field and the stormwater runoff will not impact public and private water supplies.

### Protection of Groundwater Supply

The applicant estimates that 2,860 gallons of sewage will be generated per day from the proposed 12 townhomes (26 bedrooms x 110 gallons). The groundwater level in DTH-2 was measured at 159.2 feet elevation and the bottom of the septic trench in Line 4 is proposed at 163.7 feet elevation, allowing for a separation of 4.5 feet. The applicant has not overcome the burden of proof the project will not have an impact on the groundwater quality.

The cumulative mounding analysis performed by Creative Land & Water Engineering LLC determined that under 100-year storm conditions, groundwater mounding would go above the proposed grade and as a result additional fill material was proposed to raise the bottom of the infiltration system by 3 feet. The groundwater level measured on March 12, 2018 in MW 3 was 106.14 feet. The measurement on March 12, 2018 occurred when the ground was still frozen and does not reflect seasonal high groundwater levels. Groundwater levels were not measured during April or May when groundwater levels are typically at their highest. The bottom of the stone in the subsurface stormwater system is 161.25 feet which does not provide adequate separation (> 2 feet) between the bottom of the infiltrator and seasonal high groundwater levels and thus the system is prone to failure. The applicant did not provide substantial



## **Wayland Conservation Commission Attachment to Order of Conditions**

to accompany Mass. Wetlands Prot. Act M.G.L. c. 131, §40 Order of Conditions

DEP File Number:

**322-0897**

Provided by DEP

evidence that the contribution of the septic system leachate and stormwater through recharge will not cause a measurable increase in groundwater elevations.

In addition, the mounding analysis performed by the applicant only addresses short term groundwater impacts and does not address the long-term hydrologic impacts. The amount of water being discharged to the groundwater on site increases from an estimated existing rate of 0.3 million gallons per day to a proposed 1.65 million gallons per day; an increase by a factor of 5.5. Groundwater elevations are predicted to increase over time based on evidence presented to the Commission by the abutter's representative, Scott Horsley, that the "proposed increased volumes of stormwater and wastewater at the site will significantly raise water levels compromising the feasibility of the proposed infiltration structures and resulting in alterations to the wetlands". A numerical groundwater model was not performed to evaluate these impacts to the site and therefore the Commission does not have sufficient information to evaluate the long-term impact of groundwater levels on the performance of the proposed stormwater and septic systems.

### **Flood Control**

The proposed stormwater infiltration system is designed to handle a two-year, 24-hour storm with minimal overflow. All larger storms will cause the system to discharge uncontrolled stormwater runoff through a 20-foot wide lever spreader to the adjacent Town property. The applicant does not have a drainage easement to allow for uncontrolled runoff to enter Town property. The runoff from the rear roofs of the 7-unit building will discharge across the grass strip behind the buildings and discharge over the retaining wall to the wetland resource area on the adjacent property. The area downstream of the wetland resource area has documented problems with flooding. The applicant did not provide sufficient that the additional stormwater runoff will not cause flooding and flood damage on adjacent lands, including the resource areas and nearby septic leach fields.

### **Storm Damage Prevention**

Of significant concern is the impact of the increased runoff from the proposed site on the adjacent septic systems that are located within the area of potential flooding. All septic systems on residential lots adjacent to the wetland resource area and downstream from the site may be impacted. The culvert located under East Plain Street that conveys the water in the unnamed stream may not be sized to accommodate the additional stormwater discharges from the site. This culvert system was not analyzed by the applicant to confirm that the increase in volume can be handled by the existing system. The applicant did not present sufficient proof that the additional stormwater will not cause an impact to the surface water quality of the stream, adjacent BVW from erosion and sediment migration caused by scouring and flooding on the town owned land.

### **Prevention of Pollution**

The discharge of untreated runoff from the rear roofs and the overflow from the stormwater subsurface infiltration system shall not prevent pollution to the adjacent wetland resource area. In addition, the leachate generated from the proposed onsite septic system will be a potential source of nitrogen, phosphorus, bacteria, and other pathogens to the groundwater. In addition, the snow storage area on the west side of the parking lot will discharge untreated melt water to the stormwater infiltration system. The Commission finds that the stormwater infiltration system as proposed does not adequately prevent pollution of the wetland resource areas, groundwater, and the public water supply.

### **Protection of Fisheries**

The waters of the stream flow into Lake Cochituate that sustains a robust fish population and provides valuable recreational fishing opportunities. Any impacts to the tributary such as increased volume of water, untreated discharge, snow melt, leachate, and eroded material can negatively impact the health of



## Wayland Conservation Commission Attachment to Order of Conditions

to accompany Mass. Wetlands Prot. Act M.G.L. c. 131, §40 Order of Conditions

DEP File Number:

**322-0897**

Provided by DEP

the stream, water quality, and the fish habitat. The applicant has not overcome the burden of proof that the stream is not a viable fish habitat or spawning area.

### **Protection of Wildlife Habitat**

Currently, the site has a slight upwards grade from the stream to the east side of the property that provides a corridor for wildlife to move across the site to access the stream and the wetland buffer area. Two vernal pools are located upstream of the site on Town property approximately 350 and 1,000 feet from the site. The site is contiguous with the undeveloped portion of the town property that provides diverse habitat for a variety of wildlife. The applicant is proposing to install a retaining wall along the western property line that ranges from 0.5 to 7.5 feet in height with a four foot fence along the top of the wall. A substantial amount of fill will be placed within the wetland buffer area to bring up the grade for the proposed construction and thereby eliminating any wildlife habitat and wildlife corridor on the site. The applicant has not overcome the burden of proof that the site is not currently a valuable wildlife habitat.

### **Additional reasons for the denial of an Order of Conditions for the project at 24 School Street include:**

The Commission finds that mitigation is required for work within the wetland buffer area. The applicant proposes to remove the mulch and lumber piles and the gravel from an area approximately 640 square feet in size and loam and seed the area with a native wildflower mix. The Commission finds that the proposed mitigation is not sufficient to offset the wetland buffer alteration proposed (15,400 SF). The previous owner encroached on town land, installing a stone wall and adding fill to an area approximately 3,500 square feet. The fill appears to be material discarded from the chimney cleaning business previously located at the site. The applicant's representative evaluated soil from four test pits from the filled area that found material consistent with chimney debris, however, no chemical testing was performed and the test pits were not witnessed by Town staff. The Commission finds that this visual observation does not adequately characterize the fill material. The Commission finds that removal of the fill material and stone wall and a complete restoration of the encroached area is necessary.

The applicant proposes to construct a 7.5 foot retaining wall approximately one foot off the western property line. The applicant did not provide a design by a structural engineer for the construction of the retaining wall or details about construction of a retaining wall in such close proximity to town owned land the resource area. The Commission finds that a design for the retaining wall, signed and stamped by a registered, professional structural engineer is required for a wall of this magnitude and within 30 feet of the BVW.

The design of the rain garden is not consistent with the specifications of the MA Stormwater Handbook. The Commission finds that the Stormwater BMPs must be designed, constructed, operated and maintained in accordance with the specifications and procedure set forth in Volumes 2 and 3 of the MA Stormwater Handbook. The applicant's representative provided values for the removal of total suspended solids that are not consistent with the Stormwater Handbook.

Effectively capturing the stormwater runoff from the impervious area of the site will require finite elevation control during construction. The Commission finds that the effectiveness of the stormwater management system on site will require very precise measurements of the ground elevation and questions the ability to achieve this elevation control.

The Commission finds that plans for snow storage are inadequate to service the site.

Therefore for the reasons listed above, the Commission voted in favor to deny the project at 24 School Street.