Staff Report
Application #IWW-WPL/E-11763-23
1A Plunkett Place
Assessor's Map: G11 Tax Lot: 004
Prepared: June 24, 2023 and last revised July 13, 2023
Public Hearing: July 19, 2023

Receipt Date: **June 21, 2023**

Application Classification: **Plenary**

Application Request: The applicant has requested to construct a new single-family residence (NSFR), deck, retaining walls and driveway extension. A portion of the work is proposed within upland review area setbacks of on-site wetlands. The proposed pool and patio will be part of a future application.

Plans Reviewed:

1. **Zoning/ Location Survey, Map of Property,** prepared for ELR Morgan LLC, 1A Plunkett Place, Westport, Connecticut, prepared by Walter H. Skidd – Land Surveyor LLC, dated November 17, 2022, Scale: 1" = 20'.
2. **Drainage Plan,** prepared for ELR Morgan LLC, 1A Plunkett Place, Westport, Connecticut, prepared by Fairfield County Engineering LLC, dated May 5, 2022 and last revised to May 10, 2023, Scale: 1" = 20'.
3. **Detail Sheet,** prepared for ELR Morgan LLC, 1A Plunkett Place, Westport, Connecticut, prepared by Fairfield County Engineering LLC, dated May 5, 2022 and last revised to May 10, 2023, (drawings not to scale).
4. **Drainage Report,** Prepared for Existing and Proposed Site Conditions, located at 1A Plunkett Place, Westport, Connecticut, prepared by Fairfield County Engineering, LLC, dated May 5, 2023, last revised to May 10, 2023.
5. **Architectural Plans**, prepared by Peter Klein, Associates, Inc., dated February 13, 2023, Scale: As Noted

i.	Title Page	Sheet	T-001.00
ii.	General Notes	Sheet	A-001.00
iii.	Site Plan & Zoning Compliance	Sheet	A-100.00
iv.	Existing Floor Plans	Sheet	A-110.00
v.	Basement Floor Plan	Sheet	A-111.00
vi.	First Floor Plan	Sheet	A-112.00
vii.	Second Floor Plan	Sheet	A-113.00
viii.	Attic Plan	Sheet	A-114.00
ix.	Front & Rear Building Elevation	Sheet	A-200.00
x.	Side Building Elevations	Sheet	A-201.00
xi.	Cross-Section	Sheet	A-300.00
xii.	Cross-Section	Sheet	A-301.00
xiii.	Cross-Section Details	Sheet	A-302.00
xiv.	Site Landscaping Plan	Sheet	C-100.00

xv.	Erosion Control Plan	Sheet	C-110.00
xvi.	Site Details	Sheet	C-200.00
xvii.	Foundation Plan	Sheet	FO-100.00
i.	Foundation Details	Sheet	FO-200.00
ii.	Conc. & Masonry Details	Sheet	FO-210.00

Previous Permits on file:

- **IWW/M-11751-23** Map Amendment

IWW and WPLO Regulated Areas:

There is one wetland area on the subject property. The wetland is wooded, located along the western property boundary. The wetland area within the property boundaries is 14,743 sq. ft., though the extents of the wetlands continue on adjacent properties to the north and south.

The Inland Wetland and Watercourse Regulations (IWW) setbacks determined for regulated activities on this property include:
50' upland review area for a new single-family residence,
30' upland review area for a deck,
30' upland review area for a walkway,
30' upland review area for a driveway,
30' upland review area for retaining walls,
20' upland review area for the proposed installation of stormwater management system and overall site earth disturbance.

The proposed pool and patio depicted on the "Drainage Plan" will be part of a future application.

The proposed residence is within the 50 ft. upland review area. The proposed deck is located outside of the 30 ft. upland review area upland review area. The proposed walkway is located outside of the 30 ft. upland review area. The proposed expansion of the driveway is located outside the 30 ft. upland review area. The proposed retaining wall is located outside of the 30 ft. upland review area. The drainage system is located outside of the 20 ft. upland review area, though over-dig and earthwork related to its installation is expected to be within the 20 ft. non-disturbance buffer.

The wetland boundary was adopted by the Westport Conservation Commission in June of 2023. The adopted wetland boundary on the subject property was established in May, 2023, based on a delineation performed by Aleksandra Moch, Soil & Wetland Scientist in November, 2022. The delineation report identified one palustrine forested wetland area along the western boundary of the subject property. The wetland drains towards the southeast.

The onsite wetland was not identified in the USFWS National Wetland Inventory (https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/).

The Waterway Protection Line is established 15' landward from the surveyed wetland boundary established west of the proposed residence. No work is proposed within the WPLO boundary.

Wetlands Description:

"Wetland Delineation for the property located at 1A Plunkett Place, Westport Connecticut", prepared by Aleksandra Moch, Soil & Wetland Scientist, dated November 11, 2022.

Wetland soils *found on the property*

Ridgebury, Leicester, and Whitman soils, extremely stony (3):

This soil unit consists of poorly drained and very poorly drained soils found in depressions and drainageways on uplands and in valleys. Stones and boulders cover 5% to 35% of the surface. This unit consists of three soil types mapped together because they have no major differences in use and management. The soils have a seasonal high water table at or near the surface from fall to spring. The permeability of Ridgebury and Whitman soils is moderate or moderately rapid in the surface layer and subsoil and slow or very slow in the substratum. The permeability of the Leicester soils is moderate or moderately rapid throughout. Available water capacity is moderate in all three soils. Runoff is slow on all three, and water is ponded on the surface of some areas of the Whitman soils. The high water table, ponding, and the stones and boulders on the surface limit these soils for community development. Excavations are commonly filled with water. Quickly establishing plant cover and using siltation basins help to control erosion and sedimentation during construction.

Non-wetland *soils found on the property*

Charlton-Chatfield complex, 3 to 15 percent slopes, very rocky (73C):

This component occurs on upland hill landforms. The parent material consists of melt-out till derived from schist, granite, and gneiss. The slope ranges from 3 to 15 percent and the runoff class is low. The depth to a restrictive feature is 20 to 40 inches or greater than 60 inches. The drainage class is well drained.

Property Description and Relative Facts:

a. The existing house was built in 1963. It is served by public sanitary sewer.
b. The property is 1.01 acres (44,098 sq. ft.) in size; located in Residential Zone AA.
c. The parcel is shown as located within the Muddy Brook Watershed. Muddy Brook is located ~2000' to the southeast. The wetland is depressional and drains to the southeast.
d. Property is situated in Flood Zone X as shown on F.I.R.M. Panel 09001C0414G Map revised to July 8, 2013.
e. The property **is not** within the Aquifer Protection Overlay Zone.
f. Property **is not** within the Coastal Area Management Zone.
g. The Waterway Protection Line is established 15' from the surveyed wetland boundary. The WPLO boundary is shown on the "Drainage Plan".
h. The surveyed wetland area is **~14,743 sq. ft.,** as specified on the "Drainage Plan".

- Lot Area: **1.01 acres** (44,098 sq. ft.)
- Base Lot Area: **31,495 sq. ft.**
- Proposed Building Coverage: **7.5%** (2,374 sq. ft.)
- Proposed Site Coverage: **23.4%** (7,362 sq. ft.)

Conformance to Section 6 of the Inland Wetlands and Watercourses Regulations:

6.1 GENERAL STANDARDS

a) disturbance and pollution are minimized;

b) minimize height, width, length of structures are limited to the minimum; dimension to accomplish the intended function;
c) loss of fish, other beneficial organisms, wildlife and vegetation are prevented;
d) potable fresh water supplies are protected from dangers of drought, overdraft, pollution, misuse and mismanagement;
e) maintain conservation, economic, recreational and aesthetic qualities;
f) consider historical sites

Discussion:
The "Drainage Plan", prepared by Fairfield County Engineering, LLC, dated May 5, 2023, and revised May 10, 2023, depicts that the proposed residence will be developed ~30' from the nearest wetland boundary, within of the Conservation Commission's upland review area setback. The proposed stormwater galleries and stormwater system overflow level spreader are ~20 and ~25' from the wetland boundary, respectively. These structures represent the most intensive development within upland review areas on site. The proposed deck will be ~40' from the nearest wetland boundary, outside of the Conservation Commission's upland review area setback. The proposed driveway expansion will be ~36' from the nearest wetland boundary, outside of the Conservation Commission's upland review area setback. The proposed walkway and retaining wall will be ~43' from the nearest wetland boundary, outside of the Conservation Commission's upland review area setback. The applicant proposes a planting of an arborvitae hedgerow about 3' upgradient from the limit of the wetland. Though drainage from the new coverage will be treated by the proposed management system, the planting may offer additional protection to the wooded wetland habitat from overall site runoff.

The project does not propose any direct impacts to wetlands or watercourses. The sensitive area on site is the forested wetland to the west. Staff feels the wetland should not be considered candidate habitat for fish. The site disturbance does not pose an obvious threat of loss of fish, wildlife, or vegetation. Staff feels the proposed improvements and sediment and erosion controls have been designed to prevent a significant risk of pollution or disturbance to the wetland. The proposed development will have all of the runoff from the new coverage captured in the two stormwater detention areas. The two areas will improve stormwater quality across the site. Staff sees the introduction of drainage system as an overall benefit.

6.2 WATER QUALITY
a) flushing rates, freshwater sources, existing basin characteristics and channel contours will not be adversely altered;
b) water stagnation will neither be contributed nor caused;
c) water pollution will not affect fauna, flora, physical or chemical nature of a regulated area, or the propagation and habitats of fish and wildlife, will not result;
d) pollution of groundwater or a significant aquifer will not result (*groundwater recharge area or Aquifer Protection Overlay Zone*);
e) all applicable state and local health codes shall be met;
f) water quality will be maintained or improved in accordance with the standards set by federal, state, and local authority including section 25-54(e) of the Connecticut General Statutes
g) prevents pollution of surface water

Discussion:

The nearest perennial water course is Muddy Brook. The main stem of Muddy Brook is located off site ~2000' to the southeast. The on-site wetland drains to the southeast. The surface water quality classification for Muddy Brook (State Waterbody ID: CT7000-16_01) (Connecticut Environmental Conditions Online, http://www.cteco.uconn.edu/), located offsite to the southeast, is Class A water for Inland Surface Water Class. The Class A designation indicates that the water is suitable habitat for fish other aquatic life and wildlife and recreation.

Staff referenced UConn's CLEAR Local Watershed Assessment Tool. The local watershed basin (700-16) for Muddy Brook has a combined condition index (CCI) score of 0.19. A CCI score of less than 0.43 indicates the watershed basin may be significantly impaired. The Tool defines Muddy Brook's Recovery Status as "Mitigation", identifying that watershed condition can be improved with mitigation efforts such as restoring naturalized riparian zones.

Based on the factor of distance from the site, Staff does not feel the surface water quality of Muddy Brook will be impacted from the proposed development across the subject property.

The proposed limit of disturbance is located ~20' from the on-site wetland, which drains towards the south corner of the site. There is not apparent open-water pathway of flow from the onsite wetland to the main stem of Muddy Brook, located ~2000ft to the southeast. Based on the far distance from the site, Staff does not feel the surface water quality of Muddy Brook will be impacted from the proposed development across the subject property.

Two proposed stormwater retention areas are shown consisting of a set of thirteen (13) Cultec units and another set of six (6) Cultec units. They are proposed a minimum of 20' eastward of the flagged wetland boundary and will serve the new development and driveway trench drain. The two stormwater detention areas are connected, and overflow discharge is provided from the set of 13 Cultec units. A 4" PVC level spreader is located ~10' downgradient from the galleries. The stormwater management system will collect roof and driveway runoff. The roof runoff is discharged through roof leaders and conveyed towards the stormwater galleries. The drainage system overflow level spreader volume will discharge as sheet flow towards the wetlands. The drainage report demonstrates that the Water Quality Volume (WQV) of the combined stormwater detention area is 580 cubic feet (cu. ft.) which exceeds the 152 cu. ft. that is required by Town Drainage Standards to treat the first 1" of runoff for the proposed development.

6.3 EROSION AND SEDIMENT

a) temporary erosion control measures shall be utilized during construction and for the stabilization period following construction;
b) permanent erosion control measures shall be utilized using nonstructural alternatives whenever possible and structural alternatives when avoidable;
c) existing circulation patterns, water velocity, or exposure to storm and flood conditions shall not be adversely altered;
d) formation of deposits harmful to aquatic life and or wetlands habitat will not occur;
e) applicable state, federal and local guidelines shall be met.

Discussion:

Some amount of site excavation and grading is proposed to accommodate the proposed new development and the stormwater retention areas. The development plan does not provide an estimate for the total cut and or fill of material for the overall site. Though, the plan depicts two areas for soil stockpiling.

The applicant has provided sediment and erosion controls on the "Erosion Control Plan" which incorporates the use of a single row of silt fence along the perimeter of the project area, beyond the limit of disturbance, silt fencing around the proposed soil stockpile areas, and an anti-mud tracking pad at the construction entrance. The pad will be located at the existing driveway entrance along Plunkett Place. The "Erosion Control Plan" depicts details for the silt fencing, soil stockpiling, and the construction entrance.

A memo from the Town's Engineering Department, dated July 11, 2023, stated "*The plan depicts silt fencing and an anti-tracking pad construction entrance. However, the silt fencing proposed is set near the edge of the flagged wetlands. As such, it is not clear whether the limits of disturbance proposed will be outside of the 20-foot non-disturbance setback or not.*"

The limit of silt fence is established at ~3' up gradient from the wetland boundary. Staff feels the silt fence is unnecessarily close to the limit of wetland. Staff feels the applicant has not demonstrated limitations for why the silt fence should be established immediately adjacent to the wetland. Staff recommends the Commission require the S&E plan be revised to depict the silt fence placed at a 10' minimum separation distance.

Staff feels proper installation and continued maintenance of all of the listed E&S controls should be adequate to contain sediments onsite and prevent impacts due to sedimentation.

6.4 NATURAL HABITAT STANDARDS

a) critical habitats areas,
b) the existing biological productivity of any Wetland and Watercourse shall be maintained or improved;
c) breeding, nesting and or feeding habitats of wildlife will not be significantly altered;
d) movements and lifestyles of fish and wildlife (plant and aquatic life) will not be significantly affected;
e) periods of seasonal fish runs and bird migrations shall not be impeded;
f) conservation or open space easements will be deeded whenever appropriate to protect these natural habitats.

Conservation Staff performed a preliminary site review for the project, through the CT DEEP EZ File online system. The preliminary review of the Natural Diversity Database (NDDB) demonstrated that there were no potential sensitive habitats or state listed species in the database for the subject property. Based on these results and the limited scope of the project, Staff did not recommend further consultation for biological information.

Staff notes the applicant provides a "Site Landscaping Plan" in the upland immediately upgradient from the boundary of the western wetland. On the site plan, the applicant proposes a hedgerow of 34

arborvitae immediately upgradient of the wetland boundary. The arborvitae are shown 10' on-center and approximately 3' upgradient from the wetland boundary.

Staff acknowledges arborvitae is North America-native and it will provide some protection of the wetland from stormwater runoff. Though, Staff recognizes that implementing one species of tree is limited in its overall benefit of enhancing biodiversity and wetland habitat. Staff recommends the Commission require a planted buffer of a variety native trees or shrubs and herbaceous vegetation along the wetland boundary to width of 10' landward. In addition, Staff recommends the Commission require a performance bond for the revised planting plan. The performance bond should be held for one full growing season to help ensure vitality of the intended plants. The added native plants will help establish a dense buffer of vegetation to aid in sediment capture and biofiltration of pollutants. Additionally, the planting will enhance forage and habitat for resident and migrating fauna. Staff sees the inclusion of the buffer planting and seeding as a benefit for the natural habitat of the on-site wetlands.

6.5 DISCHARGE AND RUNOFF

a) the potential for flood damage on adjacent or adjoining properties will not be increased;
b) the velocity or volume of flood waters both into and out of Wetlands and Watercourses will not be adversely altered;
c) the capacity of any wetland or watercourse to transmit or absorb flood waters will not be significantly reduced;
d) flooding upstream or downstream of the location site will not be significantly increased;
e) the activity is acceptable to the Flood & Erosion Control Board and or the Town Engineer of the municipality of Westport

Discussion:

Runoff from the driveway will be collected at a trench drain located at the garage apron and directed towards the retention area to the south composed of six (6) Cultec units. The six units will discharge overflow volume through underground pipes into the larger retention area consisting of thirteen (13) Cultec units. Runoff from the roof of the proposed residence will discharge through roof leaders and be conveyed through an underground pipe towards the 13 underground retention galleries to the north. The system will overflow through a level spreader and discharge as sheet flow towards the wetland. General stormwater runoff from the deck, the walkway and lawn will discharge as sheet flow towards the wetland.

A memo from the Town's Engineering Department, dated July 11, 2023, stated, "*The plans show that only a portion of the new house is proposed to be collected and routed to the subsurface drainage system, with the majority of the rest of the house and driveway draining overland to the wetlands. As such, the proposed drainage system does not comply with the water quality volume requirements of the Town standards because it does not treat the runoff from the proposed impervious areas. Additionally, neither the site plan nor the drainage report show the location of the proposed footing drains for foundation of the structure. These must be shown, and if pumped, they must be routed to a subsurface system that only utilizes exfiltration.*" Staff recommends a revised drainage plan and report be submitted to address the Engineering Department's comments prior to the issuance of a Zoning permit.

Overall, the site plan demonstrates that grades will remain the same. Staff feels the final site design does not pose a change to how the site transmits or absorbs flood waters. The overflow discharges located

~25' from the limit of wetland will present two concentrated sources of discharge towards the western wetland during the season's heaviest storm events, but Staff feels the proposed arborvitae hedgerow should help dissipate discharge energy before reaching the wetland.

A memo from the Town's Engineering Department, dated July 11, 2023, stated, "*The proposed site plan does not show any changes to existing contours, but does use proposed spot elevations over the proposed drainage systems to show proposed grading. The drainage system west of the house and pool has a spot elevation of 136.1 over it, to show that there will be adequate cover over the Cultec units. However, the plan does not depict the 136 contour going around this system. The plan implies that grading will be done in this area, yet it is not actually depicted. Similarly, if the spot elevation depicted over the southern drainage system is carried across that system to maintain cover over the Cultecs, the slope to the 134 contour to the west will be steeper than the maximum allowable 5:1 (H:V) and will require a variance.*"

Staff recommends the Commission require the applicant submit a revised grading plan to address the Engineering Department's comments prior to the issuance of a Zoning permit.

6.6 RECREATIONAL AND PUBLIC USES

a) access to and use of public recreational and open space facilities, both existing and planned, will not be prevented;
b) navigable channels and or small craft navigation will not be obstructed;
c) open space, recreational or other easements will be deeded whenever appropriate to protect these existing or potential recreational or public uses;
d) wetlands and watercourses held in public trust will not be adversely affected.

Discussion:
Current application will not have a significant impact on recreational and public uses.

Information Gaps / Errors

- The coverage numbers provided on the drainage plan are wrong or inconsistent with the numbers provided on the "Site Plan and Zoning Compliance", Sheet A-100.00.
- The "Drainage Plan" and the "Erosion Control Plan" are inconsistent in identifying the types and locations of E&S controls. Neither plan estimates the amount of cut and fill for the site activity. The "Erosion Control Plan" included with the Architectural Drawings demonstrates that the silt fence will be placed within the wetland. The "Drainage Plan does not depict the two areas of soil stockpiling that are shown on the "Erosion Control Plan".

Alternatives to Reduction of Impacts

1. No construction alternative.
2. Continue the application to allow the applicant time to address the recommendations outlined by the Town's Engineering Department in its memo to the Conservation Commission dated July 11, 2023.
3. Approval of application with the following conditions:

    a) Install erosion controls as shown on site plan, prior to construction commencement.
    b) The planting plan shall be revised to include additional trees, shrubs and herbaceous cover.

c) A bond to cover the cost of erosion controls and planting shall be submitted prior to the issuance of a Zoning Permit. The portion of the bond covering the plantings shall be held for one full growing season to ensure plant vitality.
d) An “as-built” survey shall be submitted prior to the issuance of a Certificate of Compliance.
e) The applicant shall submit a revised plans to the Conservation Department prior to the issuance of a Zoning Permit. The revisions shall include:
    1.) an updated location and extent of the perimeter silt fence,
    2.) an estimate of the total cut and fill of material for the entire site,
    3.) proposed locations for soil stockpiling, and
    4.) updated coverage numbers that are consistent with the drainage report and the zoning compliance site plan.
f) The applicant shall submit a revised grading plan, subject to the approval of the Engineering department prior to the issuance of a Zoning permit.
g) The applicant shall submit a revised drainage plan and report, subject to the approval of the Engineering department prior to the issuance of a Zoning permit.