



# Wake Robin Inn - 104 & 106 Sharon Road, Salisbury, Connecticut

## Soil Scientist Report

### **ARADEV LLC**

352 Atlantic Avenue, Unit 2  
Brooklyn, NY 11217

Prepared by:

### **SLR International Corporation**

99 Realty Drive, Cheshire, Connecticut, 06410

SLR Project No.: 141.21278.00001

Client Ref. No.: 22100

July 17, 2024

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## Acronyms and Abbreviations

CGS	Connecticut General Statutes
FEMA	Federal Emergency Management Agency
NDDB	Natural Diversity Database
NRCS	Natural Resources Conservation Service
SLR	SLR International Corporation
SFHA	Special Flood Hazard Area
USACE	U.S. Army Corps of Engineers
USDA	United States Department of Agriculture



## 1.0 Introduction

On behalf of ARADEV, LLC (“the client”), SLR International Corporation (SLR) has prepared the following Soil Scientist Report for Wake Robin Inn, located at 104 and 106 Sharon Road in Salisbury, Connecticut. On April 25, 2024, Matthew Sanford, Registered Soil Scientist and Professional Wetland Scientist, and Meaghan Fogarty, Wetland Professional in Training, both of SLR, visited the site to verify the boundaries of inland wetland and watercourses previously delineated by others and to delineate any additional wetlands encountered on site. This report includes the methods and results of the investigation.

In summary, the previously delineated boundaries of wetlands were confirmed in some locations and modified in other locations to reflect current site conditions. SLR confirmed and accepted the delineated onsite boundary of a large emergent wetland system located in the southeastern portion of the site, south of the central site access road, and continuing off site. Near the western parcel boundary and just south of the access road, an area previously delineated as a small, isolated wetland was not found by SLR to possess the requisite characteristics to be classified as a wetland and was removed as a site wetland. In the northern portion of the site, SLR delineated two wetland systems and intermittent watercourses. In total, approximately 1.1 acres of wetlands exist on site.

## 1.1 Site Description

The approximately 13.4-acre subject site (M/B/L 47-02) currently supports the seasonally active Wake Robin Inn, which consists of one primary three-story building, two linear one-story buildings, a standalone garage, parking area, and various appurtenances. A former single-family dwelling with detached garage also exists along the eastern site boundary. A gravel and bituminous concrete driveway bisects the property north to south, providing access from Wells Hill Road to the east and Sharon Road to the west. The site’s uplands are characterized by mixed broadleaf deciduous and coniferous forest. The site features undulating, irregular topography with areas of shallow bedrock, ledges, and rock outcroppings. Small areas of maintained lawn and gravel parking areas exist in the central portion of the property near the access drive and buildings. Wetland resources were identified within the eastern and northwestern portions of the property and are described further below. Elevation on site ranges from 782 feet to 855 feet (NAVD88). Surrounding land use is predominately comprised of single-family residential development; agricultural uses exist east of Wells Hill Road. Wononskopomuc Lake is located approximately 350 feet off site, west of Sharon Road.

### Watershed Location

The site is located within the Factory Brook subregional watershed (Basin #6005). Onsite wetlands and watercourses drain north towards Factory Brook, which emanates from Wononskopomuc Lake to the west. Factory Brook flows northeast 2.3 miles to the confluence with Salmon Creek, 5.5 miles northwest of the Salmon Creek confluence with the Housatonic River in Salisbury. The Housatonic River discharges to the Long Island Sound in Stratford.

### FEMA Mapping

According to the most recent Federal Emergency Management Agency (FEMA) mapping, effective January 5, 1989, no Special Flood Hazard Areas (SFHA) are mapped on site. A 100-year floodplain (Zone A) associated with Wononskopomuc Lake is mapped near the site’s western boundary.



## Natural Diversity Database Review

Based on a review of the most recent (December 2023) Natural Diversity Data Base (NDDDB) mapping, one polygon denoting the occurrence of listed species is mapped within the northeastern portion of the subject property.

## 2.0 Methodology

Inland wetlands and watercourses within the project area were delineated in accordance with the regulations of the Town of Salisbury, Connecticut, the State of Connecticut Inland Wetlands and Watercourses Act, Connecticut General Statutes (CGS) 22a-36 through 45, and federal regulations.

Inland wetland delineation methods followed the 1987 U.S. Army Corps of Engineers (USACE) *Wetlands Delineation Manual* (USACE, 1987) and *Regional Supplement to the Corps of Engineers Wetland Delineation Manual for the Northcentral and Northeast Region* (USACE, 2012). The classification system of the National Cooperative Soil Survey and *Field Indicators of Hydric Soils in the United States* (USDA, 2017) were used in this investigation. A second-order soil survey in accordance with the principles and practices noted in the United States Department of Agriculture (USDA) publication *Soil Survey Manual* (1993) was completed at the subject site. Soil types were identified by observation of soil morphology (soil texture, color, structure, etc.). To observe the morphology of the property's soils, hand auger borings (maximum depth of 2 feet) were completed at the site. Wetland determinations were completed based on the presence of poorly drained, very poorly drained, alluvial, or floodplain soils and submerged land (e.g., a pond). Intermittent watercourse determinations were made based on the presence of a defined permanent channel and bank and the occurrence of two or more of the following characteristics: A) evidence of scour or deposits of recent alluvium or detritus, B) the presence of standing or flowing water for a duration longer than a particular storm incident, and C) the presence of hydrophytic vegetation. Wetland boundaries were demarcated (flagged) with pink and blue surveyor's tape hung from sturdy vegetation and generally spaced a maximum of every 30 to 50 feet. Complete boundaries are located along the lines that connect these sequentially numbered flags (**Figure 2**). The wetland boundaries are subject to change until adopted by local, state, or federal regulatory agencies.

On the day of the review, weather conditions were sunny and dry, with an air temperature of approximately 75° Fahrenheit. The ground was free of snow and frost. Site conditions were suitable for wetland delineation work.

## 3.0 Results

### 3.1 Soils

Geospatial data were accessed via the USDA – Natural Resources Conservation Service (USDA-NRCS) web soil survey mapping. The soil survey mapping is appended (**Figure 3**). The survey identifies the following soil mapping units with associated NRCS map number in the subject property, including two wetland soils series/complexes:

- Mudgepond and Alden soils, extremely stony (8) – Poorly drained
- Stockbridge loam, 8 to 15% slopes (90C) – Well drained
- Farmington-Nellis complex, 3 to 15% slopes, very rocky (94C) – Well drained
- Farmington-Rock outcrop complex, 15 to 45% slopes (95E) – Well drained



Soils were examined using a Dutch auger. Field investigations generally confirmed the NRCS mapping of poorly drained soils being found along the eastern portion of the site. Please note that SLR did not fully delineate upland soil types onsite.

## 3.2 Wetlands and Watercourses

Three wetland systems were confirmed and/or delineated on site (**Figure 2**) and are herein referred to as Wetlands A, B, and C. Details of each wetland area are provided below.

### 3.2.1 Wetland A

Located in the northwest portion of the site, this mixed-class wetland system consists of four small wetland fragments that comprise a total of 4,000 square feet in area. The wetlands are primarily classified as palustrine forested wetlands; small areas particularly in the westernmost portion that lack canopy cover are classified as palustrine scrub-shrub/emergent. The western three wetland areas (flagged as WA-1 through WA-7, WA-120 through WA-123, and WA-101 through WA-104) are connected surficially by an intermittent watercourse that flows east to west while the easternmost fragment (WA-130 through WA-133) is isolated and not associated with an apparent surficial stream feature. Topographically, the wetlands are slightly depressional, situated on a west-facing slope with scattered rock outcrops. Vegetation within Wetland A consists primarily of red maple (*Acer rubrum*), eastern white pine (*Pinus strobus*), silky dogwood (*Swida amomum*), Japanese barberry (*Berberis thunbergii*), winged euonymus (*Euonymus alatus*), Morrow's honeysuckle (*Lonicera morrowii*), lesser periwinkle (*Vinca minor*), and skunk cabbage (*Symplocarpus foetidus*).

### 3.2.2 Wetland B

Wetland B, represented by wetland flags W-100 through W-148, consists of the northern portion of the intermittent watercourse within the eastern portion of the site and a bordering wetland fringe. The watercourse is conveyed below a gravel driveway via 12-inch-diameter reinforced concrete pipe and continues in a northerly direction for approximately 500 feet until reaching the northeastern parcel boundary, at which point it is conveyed below Wells Hill Road via a stormwater drop structure and culvert.

The intermittent watercourse is bordered by a narrow band of poorly drained wetland soils. Seasonal seeps are present on both the north and south banks of the intermittent watercourse. The intermittent watercourse varies from 3 feet in width up to 8 feet and has substrate consisting of cobbles, sands, and silt. Vegetation along the intermittent watercourse and within the narrow fringe wetlands are classified as palustrine forested and consist of red maple, common spicebush (*Lindera benzoin*), Morrow's honeysuckle, skunk cabbage, common horsetail (*Equisetum arvense*), lesser periwinkle, jewelweed (*Impatiens carpensis*), Virginia creeper (*Parthenocissus quinquefolia*), and sensitive fern (*Onoclea sensibilis*).

### 3.2.3 Wetland C

Wetland C was not reflagged by SLR as the existing wetland flags were still present on vegetation with legible labels present. SLR verified the flags in the field have been accepted by the SLR wetland scientists as the defined wetland boundary. The wetland comprises the southeastern portion of the site, including areas off site that drain to an intermittent watercourse that enters the site just east of the main inn building. The southern portion of Wetland C within the subject site is classified as a palustrine scrub-shrub/emergent wetland, comprised of a broad and generally level depressional area with pockets of standing water and hummocky microtopography. Vegetation within this portion of the wetland consists of common buttonbush



(*Cephalanthus occidentalis*), viburnums (*Viburnum* sp.), willows (*Salix* sp.), silky dogwood, broad-leaved cattail (*Typha latifolia*), moneywort (*Lysimachia nummularia*), skunk cabbage, marsh marigold (*Caltha palustris*), tussock sedge (*Carex stricta*), other sedges, and grasses. Standing water depths on the day of investigation ranged from approximately 6 to 18 inches.

The wetland drains to the north, forming an intermittent watercourse that is crossed by a small, wooden pedestrian bridge and then conveyed below a gravel driveway via 12-inch-diameter reinforced concrete pipe. The intermittent watercourse is approximately 6 to 8 feet in width and conveyed water depths of approximately 2 to 3 inches on the day of investigation. Vegetation within the channel and along the banks includes silky dogwood, willows, Morrow's honeysuckle, multiflora rose (*Rosa multiflora*), sensitive fern (*Onoclea sensibilis*), marsh marigold, forget-me-not (*Myosotis* sp.), yellow iris (*Iris pseudacorus*), skunk cabbage, and broad-leaved cattail. Northwest of the driveway culvert crossing, the intermittent watercourse is described above as Wetland B.













Wetland C was assessed for its potential to support vernal pool obligate amphibian species, including wood frog (*Rana sylvatica*) and/or spotted salamander (*Ambystoma maculatum*). SLR conducted a visual encounter survey during our site investigations, which included the use of dip nets to collect larval amphibians and insects from within the water column of the wetland. During our investigations, SLR observed and dip netted a large (>100) number of green frog (*Lithobates clamitans*) larvae (i.e., tadpoles) within the emergent wetland portions of the wetland. No wood frog or spotted salamander eggs or larvae were observed or dip netted within this wetland system during our spring investigations. Although no wood frog or spotted salamander eggs or larvae were found within Wetland C, it is our professional opinion that Wetland C most likely could support wood frog breeding and larval metamorphosis and to a much lesser degree spotted salamander breeding. While conducting additional field investigations, including soil test pits in July 2024, a single adult wood frog was observed within the upland forest west of Wetland C.

### 3.3 Functions and Values

Wetlands perform certain functions and possess values based on wetland type, hydrologic connectivity, habitat, and a variety of other measurable parameters. Using the USACE *Highway Methodology Workbook Supplement*, SLR completed a wetland Function-Value Evaluation for each of the onsite resource areas. The principal functions and values are listed below in **Table 1**.



**Table 1 Principal Wetland Functions and Values Assessment – Wake Robin Inn, Salisbury, Connecticut**

	Principal Functions and Values	Wetland A	Wetland B	Wetland C
	Groundwater Recharge/Discharge	Yes	Yes	Yes
	Flood Flow Alteration (Storage and Desynchronization)	No	No	No
	Fish and Shellfish Habitat	No	No	No
	Sediment/Toxicant Retention	Yes	Yes	Yes
	Nutrient Removal/Retention/ Transformation	Yes	Yes	Yes
	Production Export (Nutrient)	No	Yes	Yes
	Sediment/Shoreline/Watercourse Bank Stabilization	No	Yes	Yes
	Wetland-Dependent Wildlife Habitat	No	No	Yes
	Recreation (Consumptive and Non-Consumptive)	No	No	No
	Educational Scientific Value	No	No	No
	Uniqueness/Heritage	No	No	No
	Visual Quality/Aesthetics	No	No	No
<b>ES*</b>	Endangered Species	No	No	No



If you have any questions regarding this report, please do not hesitate to contact either of the undersigned at (203) 271-1773.

Regards,

**SLR International Corporation**



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# Appendix A Figures

## **Wake Robin Inn - 104 & 106 Sharon Road, Salisbury, Connecticut**

Soil Scientist Report

**ARADEV LLC**

Client Ref. No.: 22100

July 17, 2024

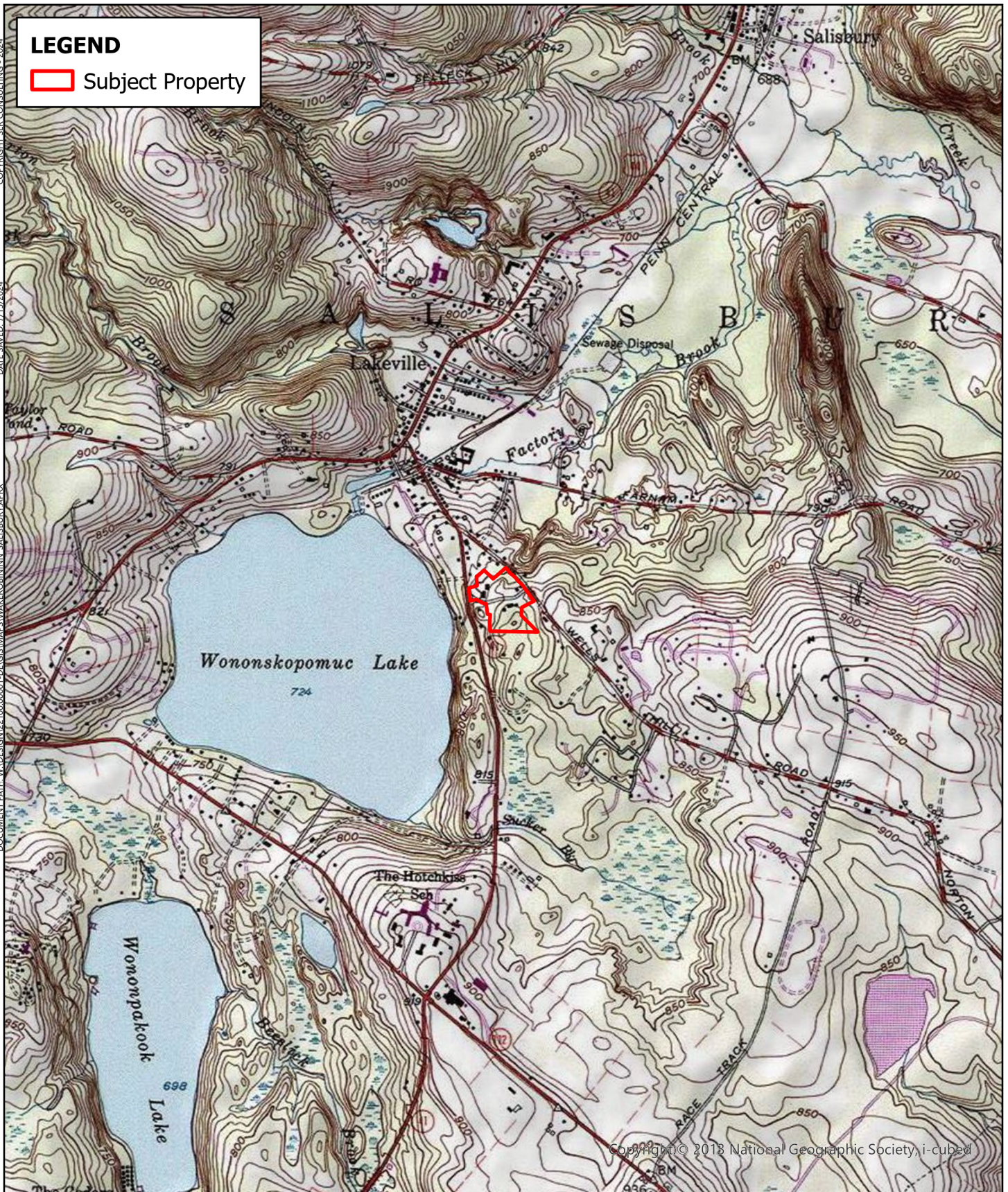


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DATE SAVED: 7/15/2024

DOCUMENT PATH: W:\DESIGN\21100-00001-DEVELOPMENT\WAKE ROBIN INN SALISBURY APX

**LEGEND**

 Subject Property



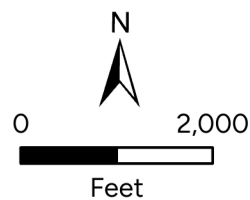
Copyright © 2013 National Geographic Society, i-cubed



99 REALTY DRIVE  
CHESHIRE, CT 06410  
203.271.1773

**USGS LOCUS MAP**

WAKE ROBIN INN IMPROVEMENTS  
ARADEV LLC  
104 & 106 SHARON ROAD  
SALISBURY, CONNECTICUT



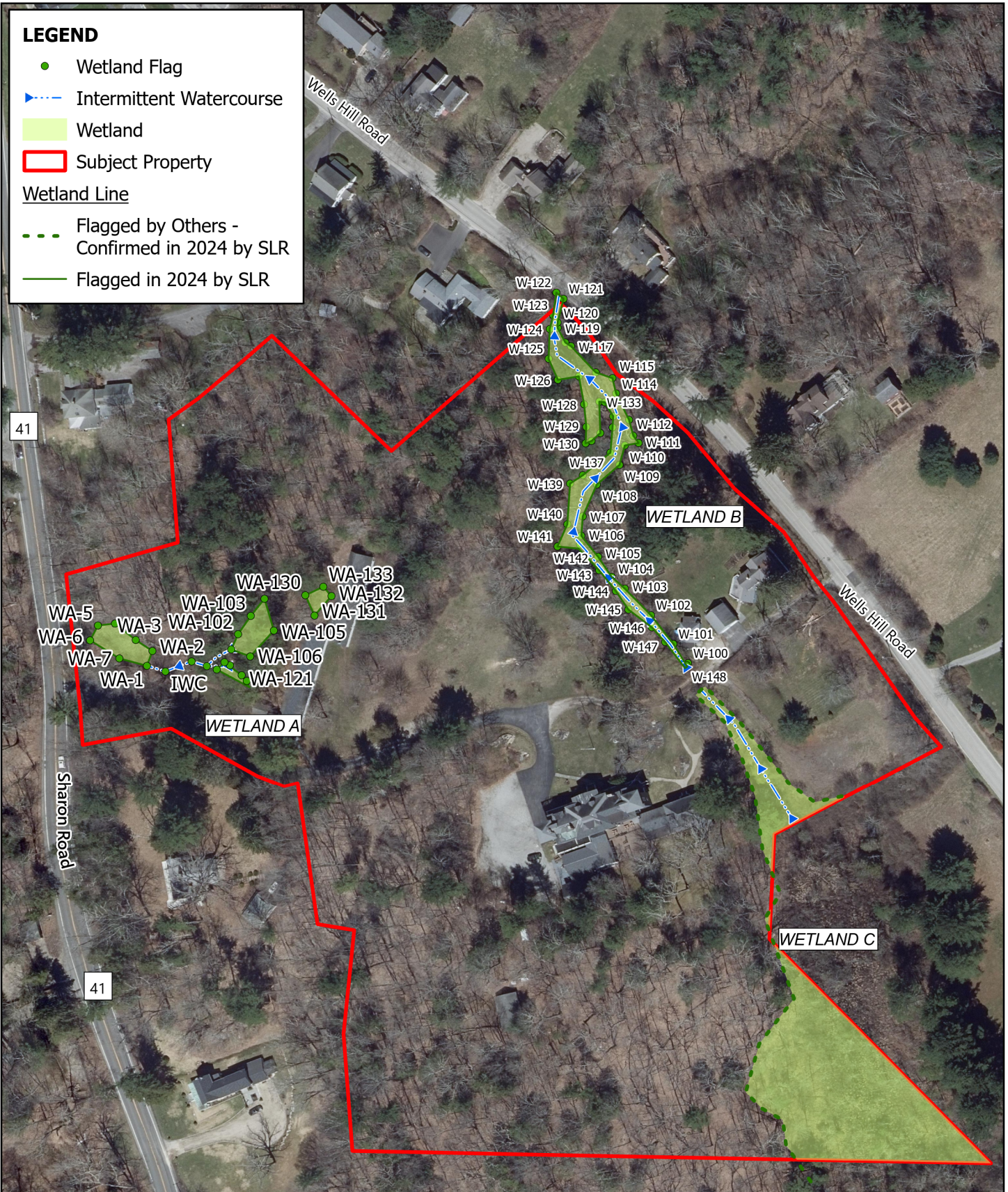
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DATE	7/16/2024
PROJ. NO.	141.21759.00001

**FIG. 1**



**LEGEND**

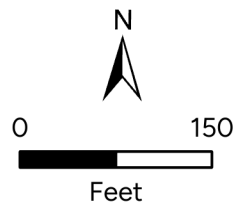
- Wetland Flag
  - ▶ Intermittent Watercourse
  - Wetland
  - Subject Property
- Wetland Line
- - - - - Flagged by Others -  
Confirmed in 2024 by SLR
  - Flagged in 2024 by SLR



99 REALTY DRIVE  
CHESHIRE, CT 06410  
203.271.1773

**WETLANDS AND WATERCOURSES**

WAKE ROBIN INN IMPROVEMENTS  
ARADEV LLC  
104 & 106 SHARON ROAD  
SALISBURY, CONNECTICUT



SCALE	1" = 150'
DATE	7/16/2024
PROJ. NO.	141.21759.00001

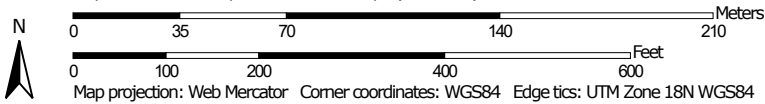
**FIG. 2**



Soil Map—State of Connecticut, Western Part  
(Figure 3 - Wake Robin Inn, Salisbury, CT)




Map Scale: 1:2,480 if printed on A landscape (11" x 8.5") sheet.



## MAP LEGEND

### Area of Interest (AOI)

 Area of Interest (AOI)

### Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

### Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

### Water Features



Streams and Canals

### Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

### Background



Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

**Warning:** Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
Web Soil Survey URL:  
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: State of Connecticut, Western Part  
Survey Area Data: Version 1, Sep 15, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Oct 21, 2022—Oct 27, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
8	Mudgepond and Alden soils, extremely stony	0.3	2.5%
90C	Stockbridge loam, 8 to 15 percent slopes	1.1	7.9%
94C	Farmington-Nellis complex, 3 to 15 percent slopes, very rocky	11.0	82.5%
95E	Farmington-Rock outcrop complex, 15 to 45 percent slopes	0.9	7.0%
<b>Totals for Area of Interest</b>		<b>13.3</b>	<b>100.0%</b>



# Appendix B Photographic Log

**Wake Robin Inn - 104 & 106 Sharon Road, Salisbury,  
Connecticut**

Soil Scientist Report

**ARADEV LLC**

Client Ref. No.: 22100

July 17, 2024





Client Name:  
ARADEV LLC

Site Location:  
Wake Robin Inn, 104 & 106 Sharon Rd, Salisbury, CT

Project No.  
141.21759.00001

Photo No.  
1

Date:  
4/25/2024

Direction Photo Taken:  
West

Description:  
Westernmost portion of  
Wetland A, facing Sharon  
Road.



Photo No.  
2

Date:  
4/25/2024

Direction Photo Taken:  
East

Description:  
Easternmost portion of  
Wetland A behind (west) of  
existing hotel building.





Client Name:  
ARADEV LLC

Site Location:  
Wake Robin Inn, 104 & 106 Sharon Rd, Salisbury, CT

Project No.  
141.21759.00001

Photo No.  
3

Date:  
5/17/2024

Direction Photo Taken:  
Southeast

Description:  
Intermittent watercourse  
within Wetland B, facing  
upstream.



Photo No.  
4

Date:  
4/25/2024

Direction Photo Taken:  
South

Description:  
Northernmost portion of  
Wetland C facing upstream,  
where its intermittent  
watercourse flows below a  
gravel driveway.





Client Name:  
ARADEV LLC

Site Location:  
Wake Robin Inn, 104 & 106 Sharon Rd, Salisbury, CT

Project No.  
141.21759.00001

Photo No.  
5

Date:  
4/25/2024

Direction Photo Taken:  
Northwest

Description:  
Intermittent watercourse  
within Wetland C, facing  
downstream from  
pedestrian bridge.



Photo No.  
6

Date:  
4/25/2024

Direction Photo Taken:  
East

Description:  
Wetland C interior.  
Palustrine Scrub  
Shrub/Emergent Wetland  
habitat.





Client Name:  
ARADEV LLC

Site Location:  
Wake Robin Inn, 104 & 106 Sharon Rd, Salisbury, CT

Project No.  
141.21759.00001

Photo No.  
7

Date:  
4/25/2024

Direction Photo Taken:  
East



Description:  
Non-wetland area that was included in a previous delineation. SLR found that the area does not display the requisite hydric soils, nor a dominance of hydrophytic vegetation. No evidence of a seasonal high groundwater table was observed in April.

Photo No.  
8

Date:  
4/25/2024

Direction Photo Taken:  
N/a



Description:  
Representative soil core (0-24 inches) within the non-wetland area. Soil chroma within the B and C horizons is greater than 2 chroma and does not exhibit strong indications of redox features such as iron depletions and/or concentrations.





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