

BOLTON INLAND WETLANDS COMMISSION
REGULAR MEETING AGENDA
TUESDAY, MARCH 27, 2018
7:00 PM
BOLTON TOWN HALL
222 BOLTON CENTER ROAD, BOLTON, CT

RECEIVED
 MAR 22 2018
 Town Clerk of Bolton

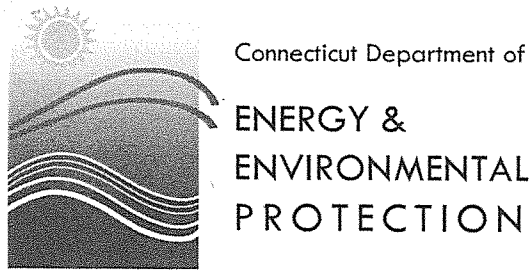
1. APPROVAL OF AGENDA
2. OLD BUSINESS –
 - A. APPLICATION 2018-2 – JAMES & MICHELE DAYTON – 109 HEBRON ROAD – CREATION OF RESIDENTIAL LOT & CONSTRUCTION OF DRIVEWAY & UTILITIES IN WETLANDS & ASSOCIATED CONSTRUCTION IN THE UPLAND REVIEW AREA
3. NEW BUSINESS
4. PUBLIC COMMENT
5. APPROVAL OF MINUTES:
 - A. JANUARY 23, 2018 REGULAR MEETING
 - B. FEBRUARY 2, 2018 SITE WALK & SPECIAL MEETING
6. WETLANDS AGENT REPORT
7. OTHER
8. ADJOURNMENT

APPLICATION STATUS

IWC #	Sub. Date	Rec'd Date	Name	Public Hearing Start	Min. Action Date	Max. Action Date
2018-2	1/19/18	1/23/18	109 Hebron Road		2/27/18	3/29/18**

*Legal extensions to this date have been included.

**Legal extensions beyond this date have not been included.



January 31, 2018

Mr. Andrew Bushnell
Bushnell Associates, LLC
563 Woodbridge Street
Manchester, CT 06042
abushnell@sbcglobal.net

Project: New Construction of a Residential Home and Driveway, 109 Hebron Rd, Bolton, Connecticut
NDDDB Determination No.: 201800292

Dear Andrew Bushnell,

I have reviewed Natural Diversity Data Base maps and files regarding the area delineated on the map you provided for the proposed New Construction of a Residential Home and Driveway, 109 Hebron Rd, Bolton, Connecticut. According to our records we have known extant populations of State Special Concern *Glyptemys insculpta* (wood turtle) in the vicinity of the project site. Thank you for including the best management practices you will implement to protect these turtles from project impacts. I concur with your protection strategies. They included:

Recommended Protection Strategies for Wood Turtles:

Work should occur when these turtles are active (April 1st to October 30th). Conducting land clearing while the turtle is active will allow the animal to move out of harm's way and minimize mortality to hibernating individuals. I recommend the additional following protection strategies in order to protect these turtles:

- Hire a qualified herpetologist to be on site to ensure these protection guidelines remain in effect and prevent turtles from being run over when moving heavy equipment. This is especially important in the month of June when turtles are selecting nesting sites.
- Exclusionary practices will be required to prevent any turtle access into construction areas. These measures will need to be installed at the limits of disturbance.
- Exclusionary fencing must be at least 20 in tall and must be secured to and remain in contact with the ground and be regularly maintained (at least bi-weekly and after major weather events) to secure any gaps or openings at ground level that may let animal pass through. Do not use plastic or netted silt-fence.
- All staging and storage areas, outside of previously paved locations, regardless of the duration of time they will be utilized, must be reviewed to remove individuals and exclude them from re-entry.
- All construction personnel working within the turtle habitat must be apprised of the species description and the possible presence of a listed species, and instructed to relocate turtles found inside work areas or notify the appropriate authorities to relocate individuals.
- Any turtles encountered within the immediate work area shall be carefully moved to an adjacent area outside of the excluded area and fencing should be inspected to identify and remove access point.

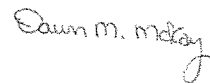
- In areas where silt fence is used for exclusion, it shall be removed as soon as the area is stable to allow for reptile and amphibian passage to resume.
- No heavy machinery or vehicles may be parked in any turtle habitat.
- Special precautions must be taken to avoid degradation of wetland habitats including any wet meadows and seasonal pools.
- The Contractor and consulting herpetologist must search the work area each morning prior to any work being done.
- When felling trees adjacent to brooks and streams please cut them to fall away from the waterway and do not drag trees across the waterway or remove stumps from banks.
- Avoid and limit any equipment use within 50 feet of streams and brooks.
- Any confirmed sightings of box, wood or spotted turtles should be reported and documented with the NDDB (nddbrequestdep@ct.gov) on the appropriate special animal form found at (http://www.ct.gov/deep/cwp/view.asp?a=2702&q=323460&depNav_GID=1641)

If these protection strategies are followed then the proposed activities will lessen the impact on this state-listed species. This determination is good for two years. Please re-submit an NDDB Request for Review if the scope of work changes or if work has not begun on this project by January 31, 2020.

Natural Diversity Data Base information includes all information regarding critical biological resources available to us at the time of the request. This information is a compilation of data collected over the years by the Department of Energy and Environmental Protection's Natural History Survey and cooperating units of DEEP, private conservation groups and the scientific community. This information is not necessarily the result of comprehensive or site-specific field investigations. Consultations with the Data Base should not be substitutes for on-site surveys required for environmental assessments. Current research projects and new contributors continue to identify additional populations of species and locations of habitats of concern, as well as, enhance existing data. Such new information is incorporated into the Data Base as it becomes available.

Please contact me if you have further questions at (860) 424-3592, or dawn.mckay@ct.gov. Thank you for consulting the Natural Diversity Data Base. A more detailed review may be conducted as part of any subsequent environmental permit applications submitted to DEEP for the proposed site.

Sincerely,



Dawn M. McKay
Environmental Analyst 3

WILDLIFE IN CONNECTICUT

STATE SPECIES OF SPECIAL CONCERN

Wood Turtle

Glyptemys insculpta

Background

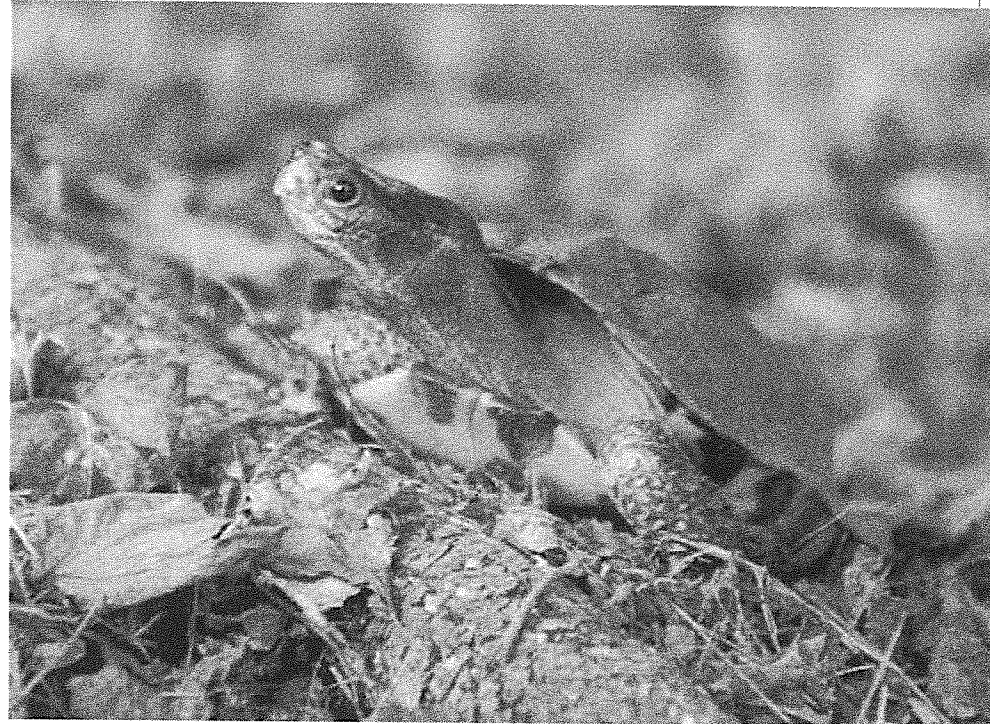
Wood turtles may be found throughout Connecticut, but they have become increasingly rare due to their complex habitat needs. Wood turtles also have become more scarce in Fairfield County due to the fragmentation of suitable habitat by urban development.

Range

Wood turtles can be found across the northeastern United States into parts of Canada. They range from Nova Scotia through New England, south into northern Virginia, and west through the Great Lakes region into Minnesota.

Description

The scientific name of the wood turtle, *Glyptemys insculpta*, refers to the deeply sculptured or chiseled pattern found on the carapace (top shell). This part of the shell is dark brown or black and may have an array of faint yellow lines radiating from the center of each chiseled, pyramid-like segment due to tannins and minerals accumulating between ridges. These segments of the carapace, as well as those of the plastron (bottom shell), are called scutes. The carapace also is keeled, with a noticeable ridge running from front to back. The plastron is yellow with large dark blotches in the outer corners of each scute. The black or dark brown head and upper limbs are contrasted by brighter pigments ranging from red and orange to a pale yellow on the throat and limb undersides. Orange hues are most typical for New England's wood turtles. The hind feet are only slightly webbed, and the tail is long and thick at the base. Adults weigh approximately 1.5 to 2.5 pounds and reach a length of 5 to 9 inches.



© PAUL J. RUSCO

Habitat and Diet

Wood turtles use aquatic and terrestrial habitats at different times of the year. Their habitats include rivers and large streams, riparian forests (adjacent to rivers), wetlands, hayfields, and other early successional habitats. Terrestrial habitat that is usually within 1,000 feet of a suitable stream or river is most likely used. Preferred stream conditions include moderate flow, sandy or gravelly bottoms, and muddy banks.

Wood turtles are omnivorous and opportunistic. They are not picky eaters and will readily consume slugs, worms, tadpoles, insects, algae, wild fruits, leaves, grass, moss, and carrion.

Life History

From late spring to early fall, wood turtles can be found roaming their aquatic or terrestrial habitats. However, once temperatures drop in autumn, the turtles retreat to rivers and large streams for hibernation. The winter

is spent underwater, often tucked away below undercut riverbanks within exposed tree roots. Dissolved oxygen is extracted from the water, allowing the turtle to remain submerged entirely until the arrival of spring. Once warmer weather sets in, the turtles will become increasingly more active, eventually leaving the water to begin foraging for food and searching for mates. Travel up or down stream is most likely, as turtles seldom stray very far from their riparian habitats.

Females nest in spring to early summer, depositing anywhere from 4 to 12 eggs into a nest dug out of soft soil, typically in sandy deposits along stream banks or other areas of loose soil. The eggs hatch in late summer or fall and the young turtles may either emerge or remain in the nest for winter hibernation. As soon as the young turtles hatch, they are on their own and receive no care from the adults.

Turtle eggs and hatchlings are heavily preyed upon by a wide variety of predators, ranging from raccoons to birds and snakes. High rates of nest predation and hatchling mortality, paired with the lengthy amount of time it takes for wood turtles to reach sexual maturity, present a challenge to maintaining sustainable populations. Wood turtles live upwards of 40 to 60 years, possibly more.

Conservation Concerns

Loss and fragmentation of habitat are the greatest threats to wood turtles. Many remaining populations in Connecticut are low in numbers and isolated from one another by human-dominated landscapes. Turtles forced to venture farther and farther from appropriate habitat

to find mates and nesting sites are more likely to be run over by cars, attacked by predators, or collected by people as pets.

Other sources of mortality include entanglements in litter and debris left behind by people, as well as strikes from mowing equipment used to maintain hayfields and other early successional habitats.

The wood turtle is imperiled throughout a large portion of its range and was placed under international trade regulatory protection through the Convention on International Trade in Endangered Species (CITES) in 1992. Wood turtles also have been included on the International Union for Conservation of Nature's (IUCN) Red List as a vulnerable species since 1996. They are listed as a species of special concern in Connecticut and protected by the Connecticut Endangered Species Act.

How You Can Help

- *Conserve riparian habitat. Maintaining a buffer strip of natural vegetation (minimum of 100 feet) along the banks of streams and rivers will protect wood turtle habitat and also help improve the water quality of the stream system. Stream banks that are manicured (cleared of natural shrubby and herbaceous vegetation) or armored by rip rap or stone walls will not be used by wood turtles or most other wildlife species.*
- *Do not litter. Wood turtles and other wildlife may accidentally ingest or become entangled in garbage and die.*
- *Leave turtles in the wild. They should never be kept as pets. Whether collected singly or for the pet trade, turtles that are removed from the wild are no longer able to be a reproducing member of a population. Every turtle removed reduces the ability of the population to maintain itself.*
- *Never release a captive turtle into the wild. It probably would not survive, may not be native to the area, and could introduce diseases to wild populations.*
- *As you drive, watch out for turtles crossing the road. Turtles found crossing roads in June and July are often pregnant females. They should **not** be collected but can be helped on their way. Without creating a traffic hazard or compromising safety, drivers are encouraged to avoid running over turtles that are crossing roads. Also, still keeping safety precautions in mind, you may elect to pick up turtles from the road and move them onto the side in the direction they are headed. Never relocate a turtle to another area that is far from where you found it.*
- *Learn more about turtles and their conservation concerns, and educate others.*
- *If you see a wood turtle, leave it in the wild, take a photograph, record the location where it was seen, and contact the Connecticut Department of Environmental Protection (DEP) Wildlife Division at dep.wildlife@ct.gov, or call 860-424-3011 to report your observation.*



HIGHLAND SOILS, LLC

February 11, 2018

Andrew Bushnell
Bushnell Associates LLC
583 Woodbridge Street
Manchester, CT 06042

**RE: JAMES and MICHELE DAYTON
109 HEBRON ROAD
BOLTON, CT**

Dear Andrew:

The inland wetland boundaries on the above-referenced property were field delineated on November 15, 2017. The wetlands were field delineated in accordance with the standards of the National Cooperative Soil Survey and the definition of wetlands as found in the Connecticut General Statutes, Chapter 440, Section 22A-38. I have reviewed the plans prepared by your office and have found the representation of the field delineated wetlands to be substantially correct.

I have reviewed the proposed driveway crossing and offer the following information. In my professional opinion, the use of the arch culverts is not warranted in this application. The existing culvert in Hebron Road, which is just downgradient of the proposed driveway, is a barrier for the migration of amphibians and small mammals. To provide a culvert that is suitable for animal migration in the driveway only to have a physical barrier just down gradient is a waste of resources in this application. Although I commend the regulatory agencies for consideration of such a crossing, I feel the design will not accomplish the intended goal unless the Hebron Road culvert is also upgraded with a similar design. In my opinion the use of the driveway culverts will add unnecessary cost to the project with no real benefit.

If you have any questions, or require additional information, please call me at (860) 742-5868.

Very truly yours,

John P. Ianni
John P. Ianni M.S.
Professional Soil Scientist

Storm Sewer Tabulation

Station Line	To Line	Len (ft)	Drng Area		Rnoff coeff (C)	Area x C		Tc		Rain (l) (in/hr)	Total flow (cfs)	Cap full (cfs)	Vel (ft/s)	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
			Incr (ac)	Total (ac)		Incr	Total	Inlet (min)	Syst (min)					Size (in)	Slope (%)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	
1	End	20.0	11.00	11.00	0.40	4.40	4.40	44.0	44.0	2.6	11.41	9.68	6.79	18	0.85	192.50	192.33	193.94	193.62	195.00	195.00	
Project File: DRIVEWAY CULVERT.slm																						
Number of lines: 1																Run Date: 02-23-2018						

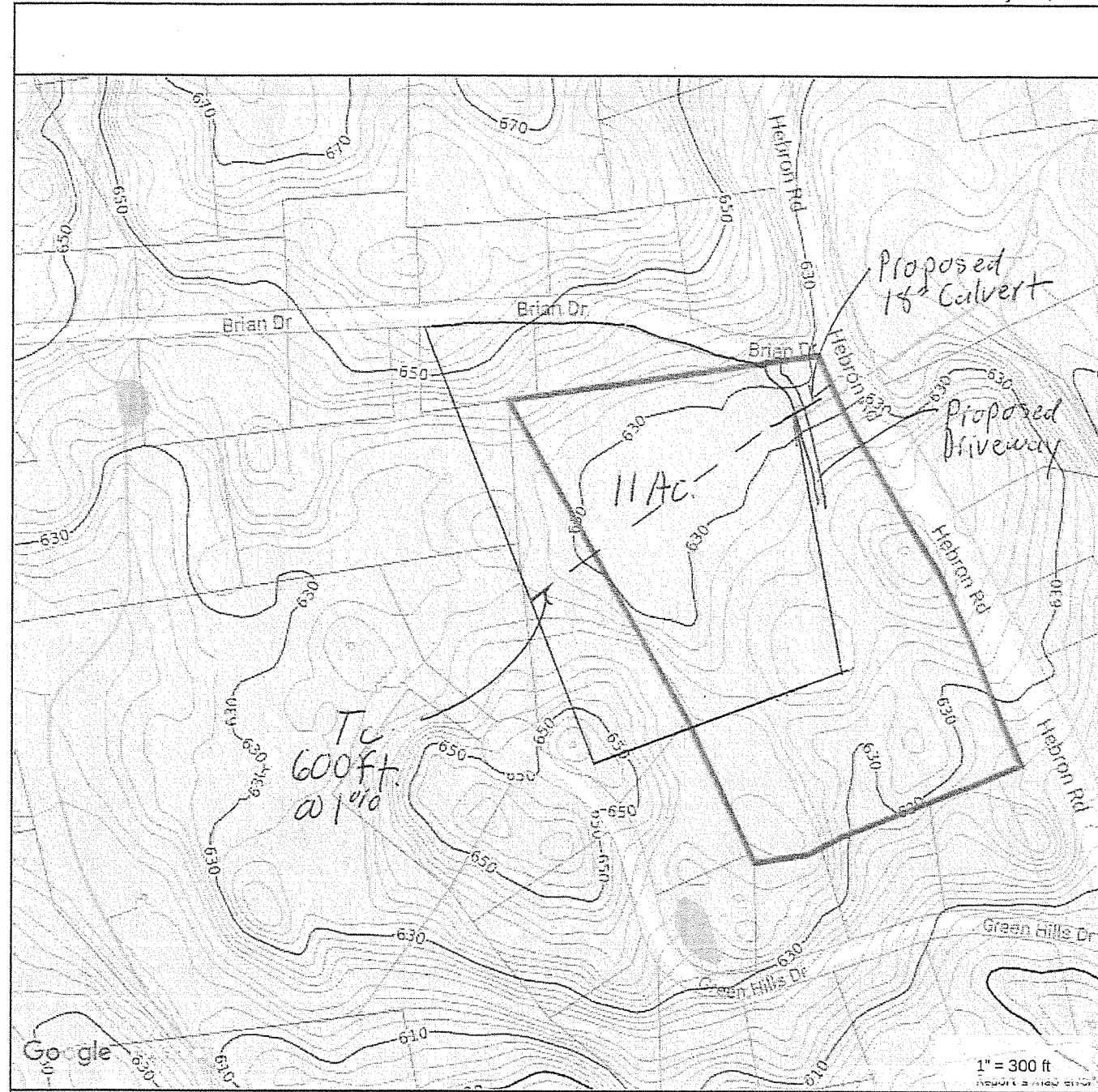
NOTES: Intensity = 73.49 / (Inlet time + 11.60) ^ 0.83. Return period = 25 Yrs.

TR55 Tc Worksheet

Hydraflow Hydrographs by Intelisolve v9.22

Hyd. No. 1

<u>Description</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>Totals</u>
Sheet Flow				
Manning's n-value	= 0.400	0.011	0.011	
Flow length (ft)	= 150.0	0.0	0.0	
Two-year 24-hr precip. (in)	= 3.25	0.00	0.00	
Land slope (%)	= 1.00	0.00	0.00	
Travel Time (min)	= 38.89	+ 0.00	+ 0.00	= 38.89
Shallow Concentrated Flow				
Flow length (ft)	= 450.00	0.00	0.00	
Watercourse slope (%)	= 1.00	0.00	0.00	
Surface description	= Unpaved	Paved	Paved	
Average velocity (ft/s)	= 1.61	0.00	0.00	
Travel Time (min)	= 4.65	+ 0.00	+ 0.00	= 4.65
Channel Flow				
X sectional flow area (sqft)	= 0.00	0.00	0.00	
Wetted perimeter (ft)	= 0.00	0.00	0.00	
Channel slope (%)	= 0.00	0.00	0.00	
Manning's n-value	= 0.015	0.015	0.015	
Velocity (ft/s)	= 0.00	0.00	0.00	
Flow length (ft)	= 0.0	0.0	0.0	
Travel Time (min)	= 0.00	+ 0.00	+ 0.00	= 0.00
Total Travel Time, Tc				43.54 min



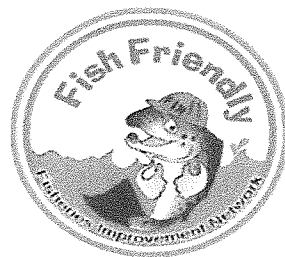
Property Information
 Property ID 09013012-17-86
 Location 109 HEBRON RD
 Owner DAYTON JAMES E & MICHELE VANCOUR



MAP FOR REFERENCE ONLY
 NOT A LEGAL DOCUMENT

CRCOG makes no claims and no warranties, expressed or implied, concerning the validity or accuracy of the GIS data presented on this map.

1" = 300 ft



Crossing Innovation – Infiltrator Arch

FIN - An information sharing network for Maine forest landowners, fisheries agencies and NGO's

Foresters and contractors working in the field often come up with innovative solutions to stream crossing problems. FIN "Crossing Innovation" information sheets highlight some of these creative solutions. Landowners should evaluate the merits of these designs for their own particular use. FIN does not in anyway guarantee the performance of these crossings.

Description

The infiltrator arch uses storm water infiltrator chambers, normally meant for storing stormwater runoff under parking lots, as a bottomless stream crossing structure.

Specifications

These chambers are made of plastic and come in several sizes, the brand we used was Stormtech. The chambers we used have a span of about 40" and a cross sectional area of approximately 7 square feet making them equivalent to a 36" round culvert. The chambers come in 7' sections and are light enough to be carried by two people and can be carried in a standard pickup. Each section snaps to the next one forming a continuous arch pipe of any desired length.

Installation

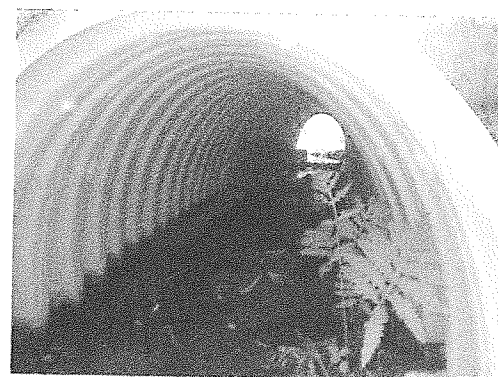
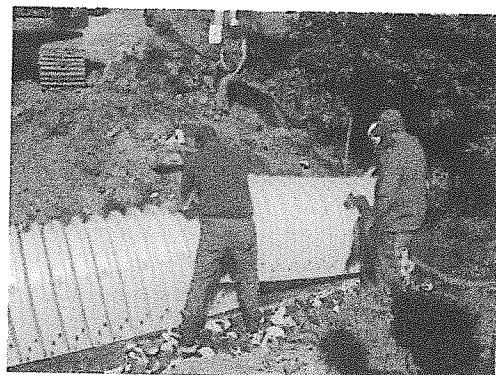
We installed two structures on low volume roads, one in Dyer Brook and one in Lakeville PLT. One arch was placed on 4"x8" hemlock footers and the second was set on precast concrete pads left over from another project. The entire pipe was covered with geotextile fabric before backfilling. Backfill was thoroughly compacted with a plate compactor to a cover depth of about 1.5'. Excellent compaction of the backfill is critical on this structure.

Cost

In 2009 each 7' section cost \$248.00; we used four sections for a total pipe cost of \$992.00. Installation cost \$2,500 for a total project cost of roughly \$3,500.

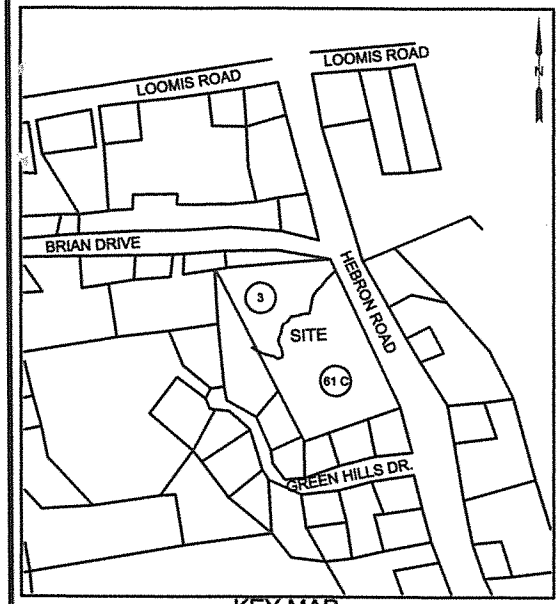
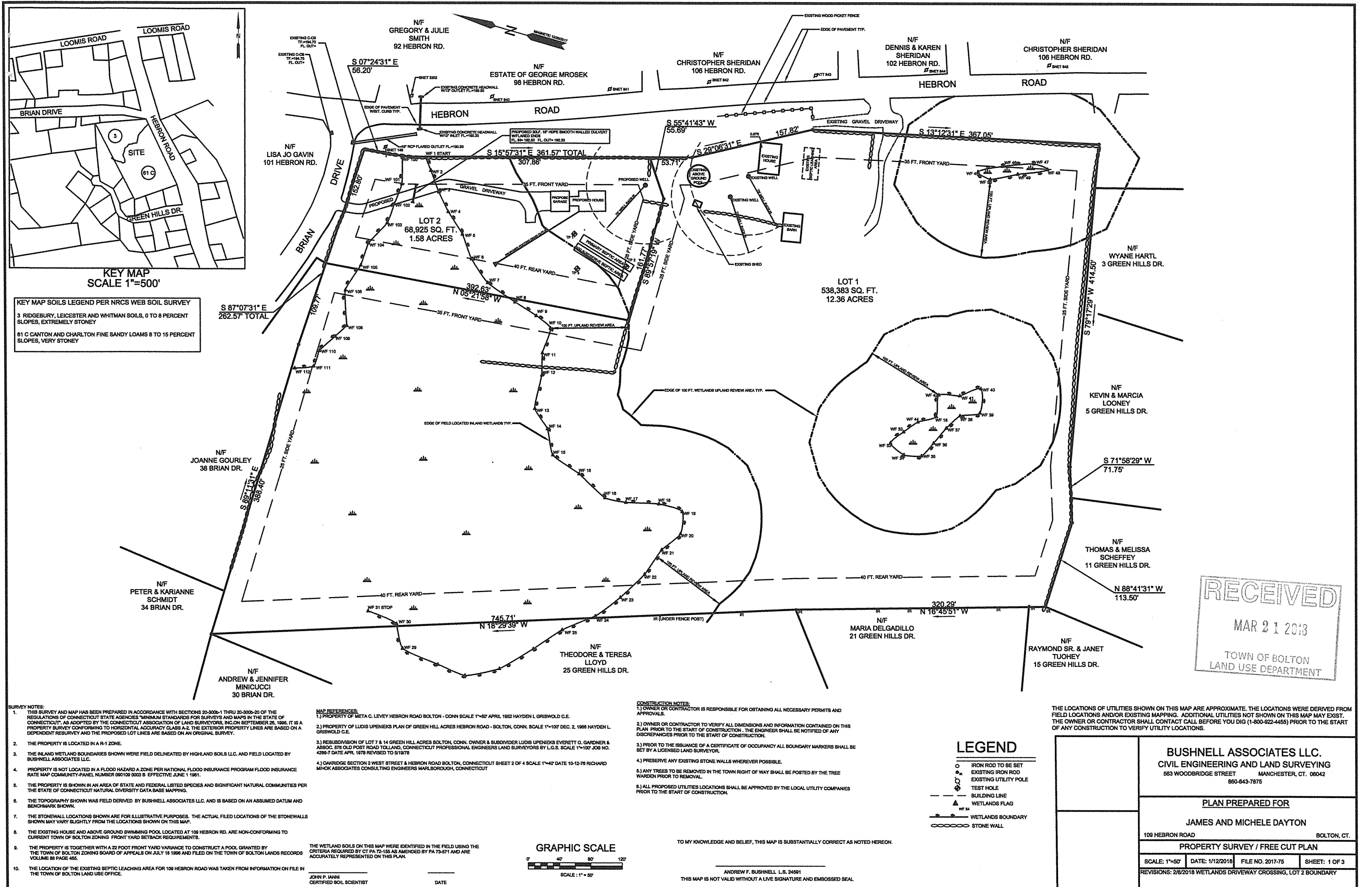
For more information Contact:

Keith Kanoti
Maine Forest Service
22 SHS, Augusta ME 04333
Ph: 207-287-1073 email: keith.kanoti@maine.gov



The Fisheries Improvement Network is a cooperative effort of the Maine Sustainable Forestry Initiative, Maine Forest Service, Maine Department of Inland Fisheries and Wildlife, Maine Department of Marine Resources and the US Fish and Wildlife Service





KEY MAP SOILS LEGEND PER NRCS WEB SOIL SURVEY

3 RIDGEBURY, LEICESTER AND WHITMAN SOILS, 0 TO 8 PERCENT SLOPES, EXTREMELY STONEY

61 C CANTON AND CHARLTON FINE SANDY LOAMS 8 TO 15 PERCENT SLOPES, VERY STONEY

- SURVEY NOTES:**
- THIS SURVEY AND MAP HAS BEEN PREPARED IN ACCORDANCE WITH SECTIONS 20-300b-1 THRU 20-300b-20 OF THE REGULATIONS OF CONNECTICUT STATE AGENCIES "MINIMUM STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT", AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPTEMBER 26, 1996. IT IS A PROPERTY SURVEY CONFORMING TO HORIZONTAL ACCURACY CLASS A-2. THE EXTERIOR PROPERTY LINES ARE BASED ON A DEPENDENT RESURVEY AND THE PROPOSED LOT LINES ARE BASED ON AN ORIGINAL SURVEY.
 - THE PROPERTY IS LOCATED IN A R-1 ZONE.
 - THE INLAND WETLAND BOUNDARIES SHOWN WERE FIELD DELINEATED BY HIGHLAND SOILS LLC. AND FIELD LOCATED BY BUSHNELL ASSOCIATES LLC.
 - PROPERTY IS NOT LOCATED IN A FLOOD HAZARD A ZONE PER NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAP COMMUNITY-PANEL NUMBER 090109 0003 B EFFECTIVE JUNE 1 1981.
 - THE PROPERTY IS SHOWN IN AN AREA OF STATE AND FEDERAL LISTED SPECIES AND SIGNIFICANT NATURAL COMMUNITIES PER THE STATE OF CONNECTICUT NATURAL DIVERSITY DATA BASE MAPPING.
 - THE TOPOGRAPHY SHOWN WAS FIELD DERIVED BY BUSHNELL ASSOCIATES LLC. AND IS BASED ON AN ASSUMED DATUM AND BENCHMARK SHOWN.
 - THE STONEMAN LOCATIONS SHOWN ARE FOR ILLUSTRATIVE PURPOSES. THE ACTUAL FIELD LOCATIONS OF THE STONEMAN SHOWN MAY VARY SLIGHTLY FROM THE LOCATIONS SHOWN ON THIS MAP.
 - THE EXISTING HOUSE AND ABOVE GROUND SWIMMING POOL LOCATED AT 109 HEBRON RD. ARE NON-CONFORMING TO CURRENT TOWN OF BOLTON ZONING FRONT YARD SETBACK REQUIREMENTS.
 - THE PROPERTY IS TOGETHER WITH A 22 FOOT FRONT YARD VARIANCE TO CONSTRUCT A POOL GRANTED BY THE TOWN OF BOLTON ZONING BOARD OF APPEALS ON JULY 18 1996 AND FILED ON THE TOWN OF BOLTON LANDS RECORDS VOLUME 88 PAGE 455.
 - THE LOCATION OF THE EXISTING SEPTIC LEACHING AREA FOR 109 HEBRON ROAD WAS TAKEN FROM INFORMATION ON FILE IN THE TOWN OF BOLTON LAND USE OFFICE.

MAP REFERENCES:

- PROPERTY OF META C. LEVEY HEBRON ROAD BOLTON - CONN SCALE 1"=50' APRIL 1962 HAYDEN L. GRISWOLD C.E.
- PROPERTY OF LUDIS UPENIEKS PLAN OF GREEN HILL ACRES HEBRON ROAD - BOLTON, CONN. SCALE 1"=100' DEC. 2, 1969 HAYDEN L. GRISWOLD C.E.
- RESUBDIVISION OF LOT 7 & 14 GREEN HILL ACRES BOLTON, CONN. OWNER & SUBDIVIDER LUDIS UPENIEKS EVERETT O. GARDNER & ASSOC. 578 OLD POST ROAD TOLLAND, CONNECTICUT PROFESSIONAL ENGINEERS LAND SURVEYORS BY L.O.S. SCALE 1"=100' JOB NO. 4286-7 DATE APR. 1978 REVISED TO 5/1978
- CANTON SECTION 2 WEST STREET & HEBRON ROAD BOLTON, CONNECTICUT SHEET 2 OF 4 SCALE 1"=40' DATE 10-12-76 RICHARD MIKOK ASSOCIATES CONSULTING ENGINEERS MARLBOROUGH, CONNECTICUT

THE WETLAND SOILS ON THIS MAP WERE IDENTIFIED IN THE FIELD USING THE CRITERIA REQUIRED BY CT PA 72-155 AS AMENDED BY PA 73-571 AND ARE ACCURATELY REPRESENTED ON THIS PLAN.

JOHN P. IANHI
CERTIFIED SOIL SCIENTIST

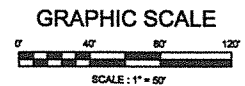
DATE _____

CONSTRUCTION NOTES:

- OWNER OR CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS.
- OWNER OR CONTRACTOR TO VERIFY ALL DIMENSIONS AND INFORMATION CONTAINED ON THIS PLAN PRIOR TO THE START OF CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES PRIOR TO THE START OF CONSTRUCTION.
- PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY ALL BOUNDARY MARKERS SHALL BE SET BY A LICENSED LAND SURVEYOR.
- PRESERVE ANY EXISTING STONE WALLS WHEREVER POSSIBLE.
- ANY TREES TO BE REMOVED IN THE TOWN RIGHT OF WAY SHALL BE POSTED BY THE TREE WARDEN PRIOR TO REMOVAL.
- ALL PROPOSED UTILITIES LOCATIONS SHALL BE APPROVED BY THE LOCAL UTILITY COMPANIES PRIOR TO THE START OF CONSTRUCTION.

TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON.

ANDREW F. BUSHNELL, L.S. 24591
THIS MAP IS NOT VALID WITHOUT A LIVE SIGNATURE AND EMBOSSED SEAL.



- LEGEND**
- IRON ROD TO BE SET
 - EXISTING IRON ROD
 - EXISTING UTILITY POLE
 - TEST HOLE
 - BUILDING LINE
 - WETLANDS FLAG
 - WETLANDS BOUNDARY
 - STONE WALL

RECEIVED

MAR 21 2018

TOWN OF BOLTON
LAND USE DEPARTMENT

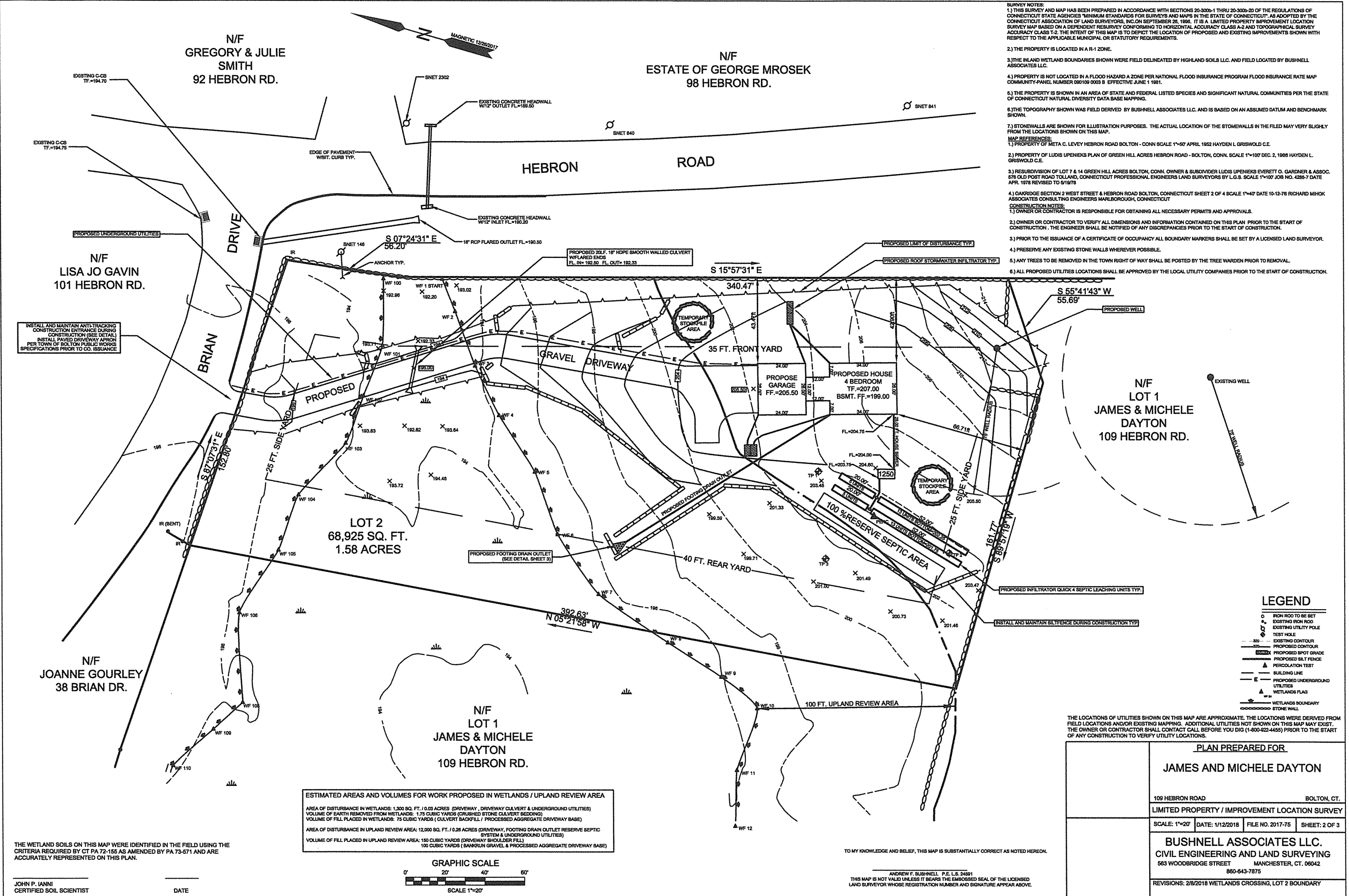
THE LOCATIONS OF UTILITIES SHOWN ON THIS MAP ARE APPROXIMATE. THE LOCATIONS WERE DERIVED FROM FIELD LOCATIONS AND/OR EXISTING MAPPING. ADDITIONAL UTILITIES NOT SHOWN ON THIS MAP MAY EXIST. THE OWNER OR CONTRACTOR SHALL CONTACT CALL BEFORE YOU DIG (1-800-922-4455) PRIOR TO THE START OF ANY CONSTRUCTION TO VERIFY UTILITY LOCATIONS.

BUSHNELL ASSOCIATES LLC.
CIVIL ENGINEERING AND LAND SURVEYING
583 WOODBRIDGE STREET MANCHESTER, CT. 06042
860-643-7875

PLAN PREPARED FOR
JAMES AND MICHELE DAYTON
109 HEBRON ROAD BOLTON, CT.

PROPERTY SURVEY / FREE CUT PLAN

SCALE: 1"=50' DATE: 1/12/2018 FILE NO. 2017-75 SHEET: 1 OF 3
REVISIONS: 2/8/2018 WETLANDS DRIVEWAY CROSSING, LOT 2 BOUNDARY



SURVEY NOTES:

- 1) THIS SURVEY AND MAP HAS BEEN PREPARED IN ACCORDANCE WITH SECTIONS 20-300b-1 THRU 20-300b-20 OF THE REGULATIONS OF CONNECTICUT STATE AGENCIES MINIMUM STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT, AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPTEMBER 28, 1998. IT IS A LIMITED PROPERTY IMPROVEMENT LOCATION SURVEY MAP BASED ON A DEPENDENT RESURVEY CONFORMING TO HORIZONTAL ACCURACY CLASS A-2 AND TOPOGRAPHICAL SURVEY ACCURACY CLASS T-2. THE INTENT OF THIS MAP IS TO DEPICT THE LOCATION OF PROPOSED AND EXISTING IMPROVEMENTS SHOWN WITH RESPECT TO THE APPLICABLE MUNICIPAL OR STATUTORY REQUIREMENTS.
- 2) THE PROPERTY IS LOCATED IN A R-1 ZONE.
- 3) THE INLAND WETLAND BOUNDARIES SHOWN WERE FIELD DELINEATED BY HIGHLAND SOILS LLC. AND FIELD LOCATED BY BUSHNELL ASSOCIATES LLC.
- 4) PROPERTY IS NOT LOCATED IN A FLOOD HAZARD A ZONE PER NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAP COMMUNITY-PANEL NUMBER 060109 0003 B EFFECTIVE JUNE 1 1981.
- 5) THE PROPERTY IS SHOWN IN AN AREA OF STATE AND FEDERAL LISTED SPECIES AND SIGNIFICANT NATURAL COMMUNITIES PER THE STATE OF CONNECTICUT NATURAL DIVERSITY DATA BASE MAPPING.
- 6) THE TOPOGRAPHY SHOWN WAS FIELD DERIVED BY BUSHNELL ASSOCIATES LLC. AND IS BASED ON AN ASSUMED DATUM AND BENCHMARK SHOWN.
- 7) STONEWALLS ARE SHOWN FOR ILLUSTRATION PURPOSES. THE ACTUAL LOCATION OF THE STONEWALLS IN THE FIELD MAY VARY SLIGHTLY FROM THE LOCATIONS SHOWN ON THIS MAP.

MAP REFERENCES:

- 1.) PROPERTY OF META C. LEVEY HEBRON ROAD BOLTON - CONN SCALE 1"=50' APRIL 1952 HAYDEN L. GRISWOLD C.E.
- 2.) PROPERTY OF LUDIS UPENIEKS PLAN OF GREEN HILL ACRES HEBRON ROAD - BOLTON, CONN. SCALE 1"=100' DEC. 2, 1968 HAYDEN L. GRISWOLD C.E.
- 3.) RESUBDIVISION OF LOT 7 & 14 GREEN HILL ACRES BOLTON, CONN. OWNER & SUBDIVIDER LUDIS UPENIEKS EVERETT O. GARDNER & ASSOC. 578 OLD POST ROAD TOLLAND, CONNECTICUT PROFESSIONAL ENGINEERS LAND SURVEYORS BY L.O.S. SCALE 1"=100' JOB NO. 4285-7 DATE APR. 1978 REVISED TO 5/19/78
- 4.) DARTMOUTH SECTION 2 WEST STREET & HEBRON ROAD BOLTON, CONNECTICUT SHEET 2 OF 4 SCALE 1"=40' DATE 10-12-78 RICHARD MINOK ASSOCIATES CONSULTING ENGINEERS MARLBOROUGH, CONNECTICUT

CONSTRUCTION NOTES:

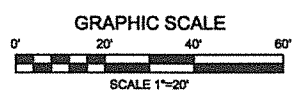
- 1) OWNER OR CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS.
- 2) OWNER OR CONTRACTOR TO VERIFY ALL DIMENSIONS AND INFORMATION CONTAINED ON THIS PLAN PRIOR TO THE START OF CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES PRIOR TO THE START OF CONSTRUCTION.
- 3) PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY ALL BOUNDARY MARKERS SHALL BE SET BY A LICENSED LAND SURVEYOR.
- 4) PRESERVE ANY EXISTING STONE WALLS WHEREVER POSSIBLE.
- 5) ANY TREES TO BE REMOVED IN THE TOWN RIGHT OF WAY SHALL BE POSTED BY THE TREE WARDEN PRIOR TO REMOVAL.
- 6) ALL PROPOSED UTILITIES LOCATIONS SHALL BE APPROVED BY THE LOCAL UTILITY COMPANIES PRIOR TO THE START OF CONSTRUCTION.

INSTALL AND MAINTAIN ANTI-TRACKING CONSTRUCTION ENTRANCE DURING CONSTRUCTION (SEE DETAIL). INSTALL PAVED DRIVEWAY APPROX PER TOWN OF BOLTON PUBLIC WORKS SPECIFICATIONS PRIOR TO CO. ISSUANCE

ESTIMATED AREAS AND VOLUMES FOR WORK PROPOSED IN WETLANDS / UPLAND REVIEW AREA

AREA OF DISTURBANCE IN WETLANDS: 1,300 SQ. FT. / 0.03 ACRES (DRIVEWAY, DRIVEWAY CULVERT & UNDERGROUND UTILITIES)
 VOLUME OF EARTH REMOVED FROM WETLANDS: 1.75 CUBIC YARDS (CRUSHED STONE CULVERT BEDDING)
 VOLUME OF FILL PLACED IN WETLANDS: 75 CUBIC YARDS (CULVERT BACKFILL / PROCESSED AGGREGATE DRIVEWAY BASE)

AREA OF DISTURBANCE IN UPLAND REVIEW AREA: 12,000 SQ. FT. / 0.28 ACRES (DRIVEWAY, FOOTING DRAIN OUTLET RESERVE SEPTIC SYSTEM & UNDERGROUND UTILITIES)
 VOLUME OF FILL PLACED IN UPLAND REVIEW AREA: 150 CUBIC YARDS (DRIVEWAY SHOULDER FILL)
 100 CUBIC YARDS (BANKRUN GRAVEL, & PROCESSED AGGREGATE DRIVEWAY BASE)



THE WETLAND SOILS ON THIS MAP WERE IDENTIFIED IN THE FIELD USING THE CRITERIA REQUIRED BY CT PA 72-155 AS AMENDED BY PA 73-571 AND ARE ACCURATELY REPRESENTED ON THIS PLAN.

JOHN P. IANNI
CERTIFIED SOIL SCIENTIST

DATE

TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON.

ANDREW F. BUSHNELL, P.E. L.S. 24591
THIS MAP IS NOT VALID UNLESS IT BEARS THE EMBOSSED SEAL OF THE LICENSED LAND SURVEYOR WHOSE REGISTRATION NUMBER AND SIGNATURE APPEAR ABOVE.

LEGEND

- IRON ROD TO BE SET
- EXISTING IRON ROD
- EXISTING UTILITY POLE
- TEST HOLE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED SPOT GRADE
- PROPOSED SALT FENCE
- PERCOLATION TEST
- BUILDING LINE
- PROPOSED UNDERGROUND UTILITIES
- WETLANDS FLAG
- WETLANDS BOUNDARY
- STONE WALL

THE LOCATIONS OF UTILITIES SHOWN ON THIS MAP ARE APPROXIMATE. THE LOCATIONS WERE DERIVED FROM FIELD LOCATIONS AND/OR EXISTING MAPPING. ADDITIONAL UTILITIES NOT SHOWN ON THIS MAP MAY EXIST. THE OWNER OR CONTRACTOR SHALL CONTACT CALL BEFORE YOU DIG (1-800-922-4455) PRIOR TO THE START OF ANY CONSTRUCTION TO VERIFY UTILITY LOCATIONS.

PLAN PREPARED FOR			
JAMES AND MICHELE DAYTON			
109 HEBRON ROAD		BOLTON, CT.	
LIMITED PROPERTY / IMPROVEMENT LOCATION SURVEY			
SCALE: 1"=20'	DATE: 1/12/2018	FILE NO. 2017-75	SHEET: 2 OF 3
BUSHNELL ASSOCIATES LLC.			
CIVIL ENGINEERING AND LAND SURVEYING			
563 WOODBRIDGE STREET		MANCHESTER, CT. 06042	
860-643-7875			
REVISIONS: 2/8/2018 WETLANDS CROSSING, LOT 2 BOUNDARY			

SEPTIC SYSTEM DESIGN NOTES AND CRITERIA

SEPTIC SYSTEM DESIGN AND INSTALLATION TO COMPLY WITH CONNECTICUT PUBLIC HEALTH CODE REGULATIONS AND TECHNICAL STANDARDS FOR SUBSURFACE SEWAGE DISPOSAL SYSTEMS EFFECTIVE JANUARY 1, 2018.

MINIMUM LEACHING SYSTEM SPREAD (MLSS) CALCULATION:
 NUMBER OF BEDROOMS: 4
 PERCOLATION RATE: 1-10 MIN/INCH (SUBDIVISION PLANS)
 RESTRICTIVE LAYER: 30" (TEST PITS 1 & 2)
 GROUND SLOPE: 6.1 & 10%
 MLSS: 24 H.F. X 1.75 F.F. X 1.0 P.F. = 42 MINIMUM

REQUIRED: 1,250 GALLON TWO-COMPARTMENT SEPTIC TANK AND 577.5 SQ. FT. OF EFFECTIVE LEACHING AREA.

PROVIDED: 1,250 GALLON TWO-COMPARTMENT CONCRETE SEPTIC TANK (ACCESS RISERS REQUIRED TO LESS THAN 12" FROM FINAL GRADE) AND 144 LINEAL FEET OF STANDARD QUICK 4 INFILTRATORS (26 UNITS) BACKFILLED WITH APPROVED SELECT FILL (EFFECTIVE LEACHING CREDIT 3.3 SQ. FT./FT) WITH AN EFFECTIVE LEACHING AREA OF 590.4 SQ.FT. MINIMUM ROW SPACING OF 7 FT. ON CENTER, WITH HOUSE SEWER PIPE OF 4" DIA. SCHEDULE 40 ASTM D-1785 / ASTM D-2685 OR EQUIVALENT.

TRENCH BOTTOMS TO BE NO MORE THAN 21" BELOW ORIGINAL GRADE.

THE SEPTIC SYSTEM AREA SHALL NOT BE DISTURBED PRIOR TO STAKEOUT OF THE SYSTEM BY THE DESIGN ENGINEER.

THE DESIGN ENGINEER SHALL STAKE OUT THE SEPTIC SYSTEM AND SET A LOCAL BENCHMARK.

SELECT FILL PLACED WITHIN AND ADJACENT TO LEACHING SYSTEM AREAS SHALL BE COMPRISED OF CLEAN SAND, OR SAND AND GRAVEL, FREE FROM ORGANIC MATTER AND FOREIGN SUBSTANCES.

THE SELECT FILL SHALL MEET THE FOLLOWING REQUIREMENTS UNLESS OTHERWISE APPROVED BY THE DESIGN ENGINEER. SELECT FILL EXCEEDING 6% PASSING THE #200 SIEVE BASED ON A WET SIEVE TEST CANNOT BE APPROVED BY THE DESIGN ENGINEER.

1.) THE SELECT FILL SHALL NOT CONTAIN ANY MATERIAL LARGER THAN THE THREE (3) INCH SIEVE.
 2.) UP TO 45% OF THE DRY WEIGHT OF THE REPRESENTATIVE SAMPLE MAY BE RETAINED ON THE #4 SIEVE.
 3.) THE MATERIAL THAT PASSES THE #4 SIEVE IS THEN REWEIGHED AND THE SIEVE ANALYSIS STARTED.
 4.) THE REMAINING SAMPLE SHALL MEET THE FOLLOWING GRADATION CRITERIA.

SIEVE SIZE	WET SIEVE	DRY SIEVE
#4	100	100
#10	70 - 100	70 - 100
#40	10 - 50*	10-75
#100	0 - 20	0 - 5
#200	0 - 5	0 - 2.5

* PERCENT PASSING THE #40 SIEVE CAN BE INCREASED TO NO GREATER THAN 70% IF THE PERCENT PASSING THE #100 SIEVE DOES NOT EXCEED 10% AND THE # 200 SIEVE DOES NOT EXCEED 5%.

SELECT FILL THAT DOES NOT MEET THE DRY SIEVE GRADATION CRITERIA BUT MEETS THE WET SIEVE CRITERIA IS ACCEPTABLE.

THE LICENSED INSTALLER IS RESPONSIBLE FOR PREPARING THE LEACHING AREA WITH REQUIRED SELECT FILL, THE TOPSOIL IN THE LEACHING AREA MUST BE COMPLETELY REMOVED AND THE SUBSOIL SCARIFIED PRIOR TO SELECT FILL PLACEMENT. THE INSTALLER SHALL TAKE NECESSARY STEPS TO PROTECT THE UNDERLYING NATURALLY OCCURRING SOIL FROM FROM OVERCOMPACTION, SILTATION OR OTHER DAMAGE. THE INSTALLER IS RESPONSIBLE FOR PROPERLY COMPACTING THE SELECT FILL TO FACILITATE CONSTRUCTION AND TO PREVENT SETTLING. SELECT FILL SHALL EXTEND A MINIMUM OF FIVE (5) FEET LATERALLY IN ALL DIRECTIONS BEYOND THE OUTER PERIMETER OF THE LEACHING AREA. THE LICENSED INSTALLER IS RESPONSIBLE FOR PROPERLY COVERING THE SYSTEM WITHIN 2 WORKING DAYS FOLLOWING THE LOCAL HEALTH DEPARTMENT FINAL INSPECTION AND APPROVAL.

TEST PITS OBSERVED BY HOLLY HOOD RS. EASTERN HIGHLANDS HEALTH DISTRICT ANDREW BUSHNELL PELS. BUSHNELL ASSOCIATES LLC 12-4-2017

PERCOLATION TEST RESULTS PERFORMED BY BUSHNELL ASSOCIATES LLC PERCOLATION TEST LOT 1 PRE-SOAK 10:00 AM 12/8/2017 START 12:30 PM 12/8/2017 HOLE DRY @ START 22" DEEP HOLE TEST STARTED 22" BELOW ORIGINAL GRADE

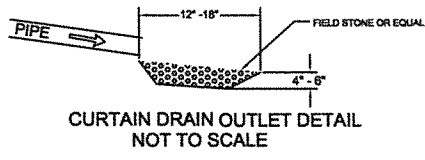
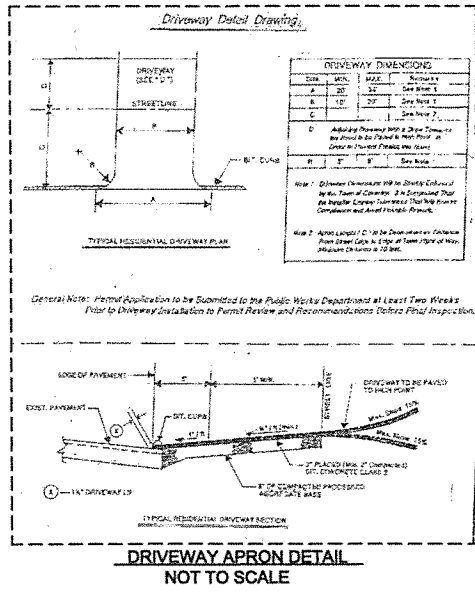
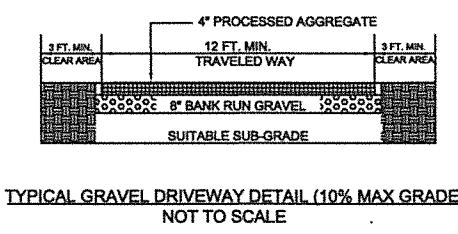
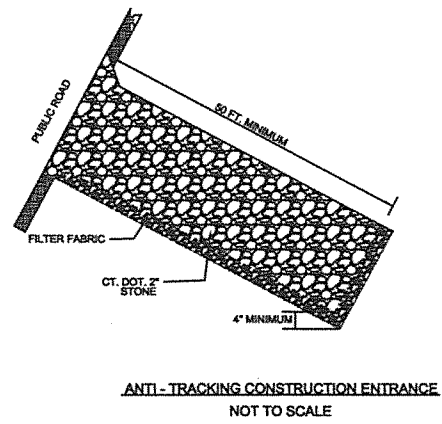
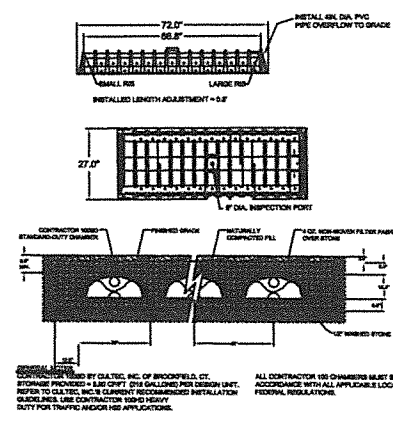
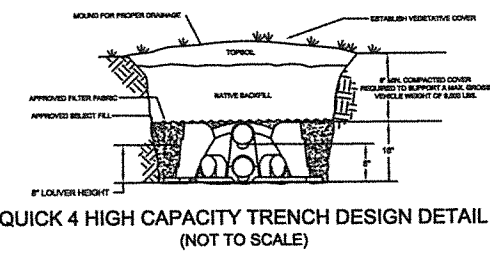
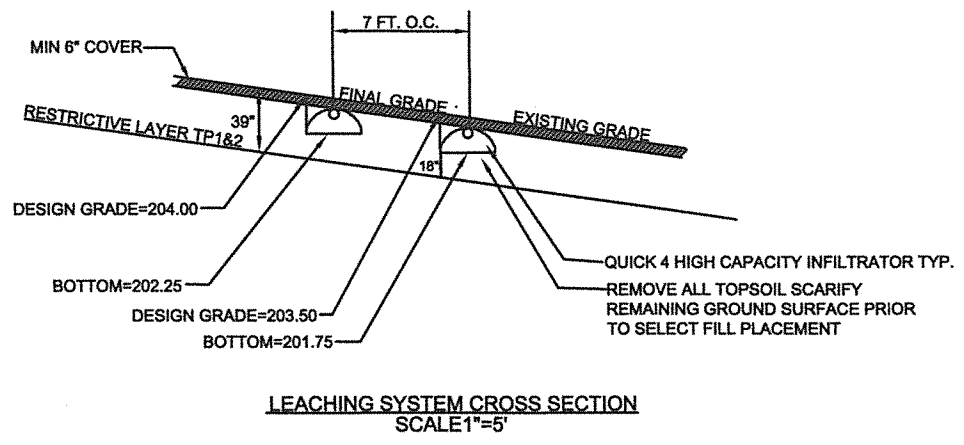
TIME (MIN.)	READING (IN.)	DIFFERENCE (IN.)
0	3 1/2	-
5	7 1/2	4
10	9 1/2	2
15	11 1/2	2
20	13	1 1/2
25	14	1
30	15	1
35	16	1
40	17	1
45	18	1
50	19	1
55	20	1
60	21	1
65	DRY @ 22"	-

PERCOLATION RATE = 1-10.0 MIN./IN.

SEPTIC SYSTEM DESIGN NOTES:
 1.) ALL SEPTIC SYSTEM AREAS SHOWN ARE A CONCEPTUAL DESIGN COMPLYING WITH THE STATE OF CONNECTICUT PUBLIC HEALTH CODE ON-SITE SEWAGE DISPOSAL REGULATIONS AND TECHNICAL STANDARDS FOR SUBSURFACE DISPOSAL SYSTEMS JANUARY 2018. DETAILED SEPTIC DESIGN PLANS WILL BE REQUIRED FOR EACH INDIVIDUAL LOT PRIOR TO THE ISSUANCE OF BUILDING PERMITS.
 2.) ALL SEPTIC SYSTEM AREAS SHOWN WERE DESIGNED WITH 4FT. WIDE STONE AND PIPE TRENCHES WITH AN EFFECTIVE LEACHING AREA OF 3 SQ.FT./FT. FINAL DETAILED SITE PLANS MAY USE ALTERNATIVE APPROVED LEACHING TRENCH CONFIGURATIONS.
 3.) SEPTIC SYSTEMS FOR ALL LOTS ARE DESIGNED FOR A 4 BEDROOM HOUSE.
 4.) ADDITIONAL TEST PITS MAYBE REQUIRED AT THE TIME OF INDIVIDUAL LOT SITE PLAN DESIGN.

- GENERAL NOTES:
 1.) ALL WORK SHALL CONFORM TO THE TOWN OF BOLTON REGULATIONS AND STANDARDS AND SPECIFICATIONS.
 2.) UNDERGROUND UTILITIES MAY EXIST IN THE AREA OF THIS SURVEY. CONTRACTOR TO VERIFY THE PRESENCE AND EXACT LOCATION OF ANY UNDERGROUND UTILITIES PRIOR TO THE START OF CONSTRUCTION.
 3.) ANY TREES TO BE REMOVED WITHIN THE TOWN ROAD RIGHT OF WAY MUST BE POSTED BY THE TREE WARDEN PRIOR TO REMOVAL.
 4.) PROPOSED DRIVEWAY SHALL NOT EXCEED 16% SLOPES. DRIVEWAYS WITH SLOPES GREATER THAN 10% SHALL BE PAVED.
 5.) NO UNDERGROUND STORAGE TANKS ARE TO BE INSTALLED EXCEPT PROPANE.
 6.) PRIOR TO THE ISSUANCE OF A CERTIFICATE OF USE AND COMPLIANCE FOR EACH PROPOSED HOUSE:
 A. ALL REQUIRED BOUNDARY MONUMENT SHALL BE SET BY A LICENSED LAND SURVEYOR. THE LAND SURVEYOR SHALL SUPPLY THE PLANNING AND ZONING DEPARTMENT WITH A LETTER VERIFYING THE GETTING OF THE REQUIRED MONUMENTATION.
 B. ALL GRADING AND CLEARING, ESPECIALLY FOR PROPER SIGHT LINE AND INSTALLATION OF DRIVEWAY APRON SHALL BE COMPLETED AND INSPECTED BY THE TOWN OF BOLTON.
 C. STREET NUMBERS FOR THE PROPOSED HOUSE SHALL BE PLACED ON THE FRONT OF THE HOUSE OR IN AN AREA MORE VISIBLE FROM THE STREET AND APPROVED BY THE TOWN OF BOLTON.
 D. THE PROPOSED DRIVEWAY SHALL BE BUILT IN THE DEPICTED LOCATION OR IN A LOCATION WITH EQUIVALENT OR BETTER SIGHT LINE AND DRAINAGE CONDITIONS AS DETERMINED BY THE ZONING AGENT AND/OR SUPERINTENDENT OF STREETS. THE DRIVEWAY SHALL HAVE A PAVED APRON.
 E. ALL DISTURBED AREAS SHALL BE TOPSOILED SEEDING AND MULCHED OR STABILIZED ACCORDING TO THE SEASON OF THE YEAR.
 F. ALL OTHER REQUIREMENTS AS STATED ON THIS PLAN SHALL HAVE BEEN MET AS PER TOWN OF BOLTON REGULATIONS.
 G.) A SEPTIC SYSTEM AS-BUILT PLAN SHALL BE PROVIDED TO THE EASTERN HIGHLANDS HEALTH DISTRICT BY THE LICENSED SEPTIC SYSTEM INSTALLER.
 7.) OWNER AND/OR CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING NECESSARY PERMITS.
 8.) LIMIT OF INDIVIDUAL LOT DISTURBANCE IS TYPICALLY DELINEATED BY THE SILT FENCE AND LIMITS OF CLEARING SYMBOLS SHOWN ON THE PLANS.
 9.) PROPOSED HOUSES, SEPTIC, DRIVEWAYS, FOOTING DRAIN AND LIMIT OF DISTURBANCE LOCATIONS SHOWN ARE PRELIMINARY. LOCATIONS MAY CHANGE WITH FINAL LOT DESIGN.
 10.) ALL UTILITIES SHALL BE INSTALLED UNDERGROUND AND BE APPROVED BY THE LOCAL UTILITY COMPANIES PRIOR TO CONSTRUCTION. ALL UTILITIES SHALL BE CONSTRUCTED TO LOCAL UTILITY COMPANY SPECIFICATIONS.
 11.) ANY DRAINAGE, COMMON DRIVEWAY, CONSERVATION, UTILITY AND ANY OTHER APPLICABLE EASEMENTS SHALL BE PLACED ON THE DEEDS FOR EACH LOT AFFECTED.
 12.) INDIVIDUAL SITE PLANS ARE REQUIRED FOR EACH LOT PRIOR TO HOUSE CONSTRUCTION. THESE PLANS SHALL SHOW THE FOLLOWING: PROPOSED EROSION AND SEDIMENT CONTROLS, HOUSE LOCATION, SEPTIC SYSTEM, WELL, DRIVEWAY, CURTAIN DRAINS (IF REQUIRED, FOOTING DRAINS) AND GRADING.
 13.) STONEWALLS SHALL BE PRESERVED WHENEVER POSSIBLE.
 14.) INDIVIDUAL CLEARING LIMITS OF EACH LOT SHALL BE FLAGGED BY A LICENSED LAND SURVEYOR AND CERTIFIED, TO THE TOWN OF BOLTON, TO BE CONSISTENT WITH THE INDIVIDUAL LOT DEVELOPMENT PLAN PRIOR TO THE START OF ANY SITE DISTURBANCE.

- EROSION CONTROL CONSTRUCTION SEQUENCE PLAN HOUSE LOT DEVELOPMENT
 NOTE: ALL EROSION AND SEDIMENT CONTROL ACTIVITIES SHALL CONFORM TO THE METHODS OUTLINED IN THE 2002 CONNECTICUT GUIDELINES FOR EROSION AND SEDIMENT CONTROL MANUAL.
- PHASE 1: DRIVEWAY CONSTRUCTION:
 ANTICIPATED START DATE: APRIL 15, 2018
 ANTICIPATED COMPLETION DATE: MAY 15, 2018
- COORDINATE MARKING OF LIMITS OF DISTURBANCE REQUIRED FOR DRIVEWAY CONSTRUCTION ONLY BY A LICENSED LAND SURVEYOR. SUPPLY TOWN EROSION CONTROL OFFICER WITH A LETTER FROM THE SURVEYOR CERTIFYING THE LIMITS OF DISTURBANCE WERE MARKED IN ACCORDANCE WITH THE APPROVED PLAN.
 - CLEAR TREES AS REQUIRED FOR OVERALL LOT DEVELOPMENT.
 - PRIOR TO SOIL DISTURBANCE INSTALL EROSION CONTROL MEASURES REQUIRED FOR DRIVEWAY CONSTRUCTION, STAKED HAYBALE BACKED SILT FENCE AND ANTI-TRACKING PAD (SEE PLAN DETAILS AND LOCATIONS). ADDITIONAL MEASURES MAY BE REQUIRED AS SITE CONDITIONS REQUIRE. COORDINATE AN INSPECTION OF INSTALLED MEASURES WITH THE EROSION CONTROL OFFICER. SUPPLY THE TOWN OF BOLTON EROSION CONTROL OFFICER WITH THE NAME AND PHONE NUMBER OF A CONTACT PERSON RESPONSIBLE FOR THE EROSION CONTROL MEASURES.
 - PERIODICALLY AND AFTER LARGE RAIN EVENTS INSPECT EROSION CONTROL MEASURES, REPAIR AND REMOVE SEDIMENT BUILD UP AS NECESSARY.
 - GRUB AND STRIP TOPSOIL. STOCKPILE TOPSOIL IN AREAS INDICATED ON THE APPROVED PLAN.
 - CONSTRUCT AND STABILIZE DRIVEWAYS WITH PROCESS AGGREGATE BASE COURSE.
 - SPREAD STOCKPILED TOPSOIL. MACHINE RAKE, FERTILIZE, SEED AND MULCH DISTURBED AREAS. USE GRASS SEED THAT IS ACCEPTABLE FOR THE SITE CONDITIONS (I.E. SUN OR SHADE) AND THE SEASON OF THE YEAR IN WHICH THIS ACTIVITY IS COMPLETED. PROVIDE TEMPORARY STABILIZATION OF THE SITE (I.E. STRAW OR HAY ETC.) IF THE TOPSOIL IS SPREAD DURING A TIME OF YEAR WHEN GRASS SEED WILL NOT GERMINATE. PROVIDE PERMANENT STABILIZATION WHEN WEATHER CONDITIONS ALLOW.
 - ANY EXISTING DISTURBED AREAS MUST BE SEEDING WITH PERMANENT OR TEMPORARY GROUND COVER AND MULCHED BY OCTOBER 15.
- PHASE 2 HOUSE CONSTRUCTION (NOT TO BEGIN UNTIL PHASE 1 IS COMPLETED)
 ANTICIPATED START DATE: MAY 15, 2018
 ANTICIPATED COMPLETION DATE: OCTOBER 15, 2018
- COORDINATE MARKING OF LIMITS OF DISTURBANCE REQUIRED FOR HOUSE AND SEPTIC CONSTRUCTION ONLY BY A LICENSED LAND SURVEYOR. SUPPLY TOWN EROSION CONTROL OFFICER WITH A LETTER FROM THE SURVEYOR CERTIFYING THE LIMITS OF DISTURBANCE WERE MARKED IN ACCORDANCE WITH THE APPROVED PLAN.
 - CONTINUE TO MAINTAIN EROSION CONTROL MEASURES PLACED FOR DRIVEWAY CONSTRUCTION.
 - CLEAR TREES AS REQUIRED FOR HOUSE CONSTRUCTION.
 - PRIOR TO SOIL DISTURBANCE INSTALL EROSION CONTROL MEASURES REQUIRED FOR HOUSE CONSTRUCTION, (SEE PLAN DETAILS AND LOCATIONS). ADDITIONAL MEASURES MAY BE REQUIRED AS SITE CONDITIONS REQUIRE. COORDINATE AN INSPECTION OF INSTALLED MEASURES WITH THE EROSION CONTROL OFFICER. SUPPLY THE TOWN OF BOLTON EROSION CONTROL OFFICER WITH THE NAME AND PHONE NUMBER OF A CONTACT PERSON RESPONSIBLE FOR THE EROSION CONTROL MEASURES.
 - PERIODICALLY AND AFTER LARGE RAIN EVENTS INSPECT EROSION CONTROL MEASURES, REPAIR AND REMOVE SEDIMENT BUILD UP AS NECESSARY.
 - GRUB AND STRIP TOPSOIL. STOCKPILE TOPSOIL IN AREAS INDICATED ON THE APPROVED PLAN.
 - CONSTRUCT HOUSE, WELL, SEPTIC SYSTEM AND OTHER IMPROVEMENTS AS SHOWN.
 - PAVE REQUIRED SECTIONS OF THE DRIVEWAYS.
 - SPREAD STOCKPILED TOPSOIL. MACHINE RAKE, FERTILIZE, SEED AND MULCH DISTURBED AREAS. USE GRASS SEED THAT IS ACCEPTABLE FOR THE SITE CONDITIONS (I.E. SUN OR SHADE) AND THE SEASON OF THE YEAR IN WHICH THIS ACTIVITY IS COMPLETED. PROVIDE TEMPORARY STABILIZATION OF THE SITE (I.E. STRAW OR HAY ETC.) IF THE TOPSOIL IS SPREAD DURING A TIME OF YEAR WHEN GRASS SEED WILL NOT GERMINATE. PROVIDE PERMANENT STABILIZATION WHEN WEATHER CONDITIONS ALLOW.
 - REMOVE EROSION CONTROL MEASURES AFTER THE SITE HAS BECOME FULLY ESTABLISHED.
 - ANY EXISTING DISTURBED AREAS MUST BE SEEDING WITH PERMANENT OR TEMPORARY GROUND COVER AND MULCHED BY OCTOBER 15.
 - DEWATERING OPERATIONS, IF REQUIRED, SHALL UTILIZE A CRUSHED STONE INTAKE PUMP AND A TEMPORARY OUTLET SILT POOL LOCATED WITHIN THE LIMITS OF DISTURBANCE.



SITE SEEDING NOTES:
 PREPARATION: FINE GRADE AND RAKE SOIL SURFACE TO REMOVE STONES LARGER THAN 2" IN DIAMETER. INSTALL SEEDING EROSION CONTROL DEVICES SUCH AS SURFACE WATER DIVERSIONS AS REQUIRED. APPLY LIMESTONE AT A RATE OF 2 TONS/AC. OR 60 LBS/1000 SQ.FT. FERTILIZE WITH 10-10-10 AT A RATE OF 300 LBS/AC. OR 7.5 LBS. PER 1000 SQ.FT. WORK LIME AND FERTILIZER INTO SOIL UNIFORMLY TO A DEPTH OF 4".

SEED APPLICATION: APPLY SEED MIXTURE FROM THE CHART BELOW BY HAND, CYCLONE SEEDER OR HYDRO SEEDER. INCREASE SEED MIXTURE BY 10% IF HYDRO SEEDER IS USED. LIGHTLY DRAG OR ROLL THE SEEDING SURFACE TO COVER SEED. SEEDING SHOULD BE DONE BETWEEN THE TIMES SHOWN ON THE CHART BELOW. IF SEEDING CANNOT BE DONE DURING THESE TIMES, REPEAT MULCHING PROCEDURE BELOW UNTIL SEEDING CAN TAKE PLACE.

MULCHING: IMMEDIATELY FOLLOWING SEEDING, MULCH THE SEED SURFACE WITH STRAW OR HAY AT A RATE OF 2 TO 3 TONS/AC. SPREAD MULCH BY HAND OR MULCH BLOWER. PUNCH MULCH INTO SOIL SURFACE WITH A TRACK MACHINE OR DISK HARROW SET STRAIGHT UP. IF USING HYDRO SEED MIX. USE TACTIFIER ADDITIVES TO ADHERE MULCH MATERIAL TO THE SURFACE.

SEED SELECTION:	USE	LB/1000 SQ. FT.	SEED MIXTURE	RECOMMENDED SEEDING DATES
PERMANENT LAWN	0.45	0.45	KENTUCKY BLUEGRASS	4/1-6/15
	0.45		CREeping RED FESCUE	8/15-10/1
	0.10		PERENNIAL RYEGRASS	
SLOPES & COARSE LAWN	0.45	0.45	CREeping RED FESCUE	4/1-6/15
	0.45		TALL FESCUE	8/15-10/1
SLOPES (NO MOWING)	1.8	0.2	CREeping RED FESCUE	4/1-6/15
	0.2		RED TOP	8/15-10/1
TEMPORARY COVER	3.0	1.0	WINTER RYE	4/15-6/15, 8/15-10/15
			ANNUAL RYEGRASS	3/1-6/15, 8/1-10/15

IF SEED IS PLANTED OUTSIDE THE RECOMMENDED SEEDING DATES IRRIGATION MAYBE REQUIRED AT A UNIFORM APPLICATION RATE OF 1 TO 2 INCHES OF WATER APPLIED PER APPLICATION, SOAKING THE GROUND TO A DEPTH OF 4 INCHES.

THE LOCATIONS OF UTILITIES SHOWN ON THIS MAP ARE APPROXIMATE. THE LOCATIONS WERE DERIVED FROM FIELD LOCATIONS AND/OR EXISTING MAPPING. ADDITIONAL UTILITIES NOT SHOWN ON THIS MAP MAY EXIST. THE OWNER OR CONTRACTOR SHALL CONTACT CALL BEFORE YOU DIG (1-800-922-4455) PRIOR TO THE START OF ANY CONSTRUCTION TO VERIFY UTILITY LOCATIONS.

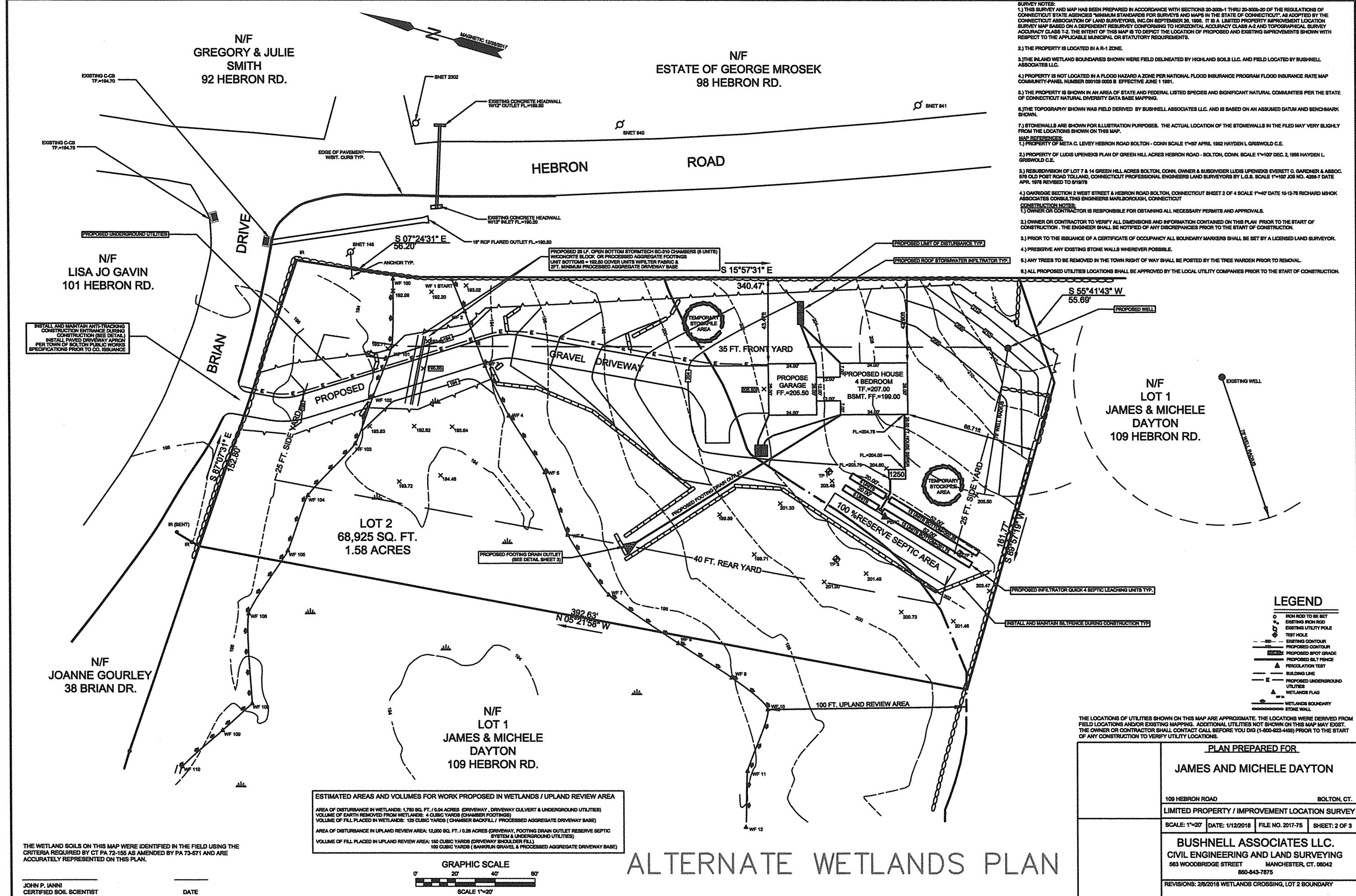
BUSHNELL ASSOCIATES LLC.
 CIVIL ENGINEERING AND LAND SURVEYING
 563 WOODBRIDGE STREET MANCHESTER, CT. 06042
 860-843-7875

PLAN PREPARED FOR
JAMES AND MICHELE DAYTON
 109 HEBRON ROAD BOLTON, CT.

E&S PLAN / TEST PIT DATA / CONSTRUCTION DETAILS

SCALE: NONE	DATE: 1/15/2018	FILE NO. 2017-75	SHEET: 3 OF 3
-------------	-----------------	------------------	---------------

REVISIONS: 2/8/2018



SURVEY NOTES:

- 1.) THIS SURVEY AND MAP HAS BEEN PREPARED IN ACCORDANCE WITH SECTIONS 20-300b-1 THRU 20-300b-20 OF THE REGULATIONS OF CONNECTICUT STATE AGENCIES' MINIMUM STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT, AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPTEMBER 28, 1993. IT IS A LIMITED PROPERTY IMPROVEMENT LOCATION SURVEY MAP BASED ON A DEPENDENT RESURVEY CONFORMING TO HORIZONTAL ACCURACY CLASS A-2 AND TOPOGRAPHICAL SURVEY ACCURACY CLASS T-2. THE INTENT OF THIS MAP IS TO DEPICT THE LOCATION OF PROPOSED AND EXISTING IMPROVEMENTS SHOWN WITH RESPECT TO THE APPLICABLE MUNICIPAL OR STATUTORY REQUIREMENTS.
- 2.) THE PROPERTY IS LOCATED IN A R-1 ZONE.
- 3.) THE INLAND WETLAND BOUNDARIES SHOWN WERE FIELD DELINEATED BY HIGHLAND SOILS LLC. AND FIELD LOCATED BY BUSHNELL ASSOCIATES LLC.
- 4.) PROPERTY IS NOT LOCATED IN A FLOOD HAZARD ZONE PER NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAP COMMUNITY-PANEL NUMBER 050109 0003 B EFFECTIVE JUNE 1 1991.
- 5.) THE PROPERTY IS SHOWN IN AN AREA OF STATE AND FEDERAL LISTED SPECIES AND SIGNIFICANT NATURAL COMMUNITIES PER THE STATE OF CONNECTICUT NATURAL DIVERSITY DATA BASE MAPPING.
- 6.) THE TOPOGRAPHY SHOWN WAS FIELD DERIVED BY BUSHNELL ASSOCIATES LLC. AND IS BASED ON AN ASSUMED DATUM AND BENCHMARK SHOWN.
- 7.) STONEWALLS ARE SHOWN FOR ILLUSTRATION PURPOSES. THE ACTUAL LOCATION OF THE STONEWALLS IN THE FIELD MAY VARY SLIGHTLY FROM THE LOCATIONS SHOWN ON THIS MAP.

MAP REFERENCES:

- 1.) PROPERTY OF META C. LEVY HEBRON ROAD BOLTON - CONN SCALE 1"=57' APRIL 1952 HAYDEN L. GRISWOLD C.E.
- 2.) PROPERTY OF LUDIS UPENIEKS PLAN OF GREEN HILL ACRES HEBRON ROAD - BOLTON, CONN. SCALE 1"=100' DEC. 2, 1988 HAYDEN L. GRISWOLD C.E.
- 3.) RESUBDIVISION OF LOT 7 & 14 GREEN HILL ACRES BOLTON, CONN. OWNER & SUBDIVIDER LUDIS UPENIEKS EVERETT G. GARDNER & ASSOC. 676 OLD POST ROAD TOLLAND, CONNECTICUT PROFESSIONAL ENGINEERS LAND SURVEYORS BY L.G.S. SCALE 1"=100' JOB NO. 4285-7 DATE APR. 1978 REVISED TO 6/18/78
- 4.) QUADRANGLE SECTION 2 WEST STREET & HEBRON ROAD BOLTON, CONNECTICUT SHEET 2 OF 4 SCALE 1"=40' DATE 10-13-76 RICHARD MINOK ASSOCIATES CONSULTING ENGINEERS MARLBOROUGH, CONNECTICUT

CONSTRUCTION NOTES:

- 1.) OWNER OR CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS.
- 2.) OWNER OR CONTRACTOR TO VERIFY ALL DIMENSIONS AND INFORMATION CONTAINED ON THIS PLAN PRIOR TO THE START OF CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES PRIOR TO THE START OF CONSTRUCTION.
- 3.) PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY ALL BOUNDARY MARKERS SHALL BE SET BY A LICENSED LAND SURVEYOR.
- 4.) PRESERVE ANY EXISTING STONE WALLS WHEREVER POSSIBLE.
- 5.) ANY TREES TO BE REMOVED IN THE TOWN RIGHT OF WAY SHALL BE POSTED BY THE TREE WARDEN PRIOR TO REMOVAL.
- 6.) ALL PROPOSED UTILITIES LOCATIONS SHALL BE APPROVED BY THE LOCAL UTILITY COMPANIES PRIOR TO THE START OF CONSTRUCTION.

INSTALL AND MAINTAIN ANTI-TRACKING CONSTRUCTION ENTRANCE DURING CONSTRUCTION (SEE DETAIL).
INSTALL PAVED DRIVEWAY APRON PER TOWN OF BOLTON PUBLIC WORKS SPECIFICATIONS PRIOR TO CO. ISSUANCE.

LEGEND

- IRON ROD TO BE SET
- EXISTING IRON ROD
- EXISTING UTILITY POLE
- TEST HOLE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED SPOT GRADE
- PROPOSED BILT FENCE
- △ PERCOLATION TEST
- BUILDING LINE
- PROPOSED UNDERGROUND UTILITIES
- △ WETLANDS FLAG
- WETLANDS BOUNDARY
- STONE WALL

THE LOCATIONS OF UTILITIES SHOWN ON THIS MAP ARE APPROXIMATE. THE LOCATIONS WERE DERIVED FROM FIELD LOCATIONS AND/OR EXISTING MAPPING. ADDITIONAL UTILITIES NOT SHOWN ON THIS MAP MAY EXIST. THE OWNER OR CONTRACTOR SHALL CONTACT CALL BEFORE YOU DIG (1-800-622-4455) PRIOR TO THE START OF ANY CONSTRUCTION TO VERIFY UTILITY LOCATIONS.

ESTIMATED AREAS AND VOLUMES FOR WORK PROPOSED IN WETLANDS / UPLAND REVIEW AREA

AREA OF DISTURBANCE IN WETLANDS: 1,730 SQ. FT. / 0.04 ACRES (DRIVEWAY, DRIVEWAY CULVERT & UNDERGROUND UTILITIES)
 VOLUME OF EARTH REMOVED FROM WETLANDS: 4 CUBIC YARDS (CHAMBER FOOTINGS)
 VOLUME OF FILL PLACED IN WETLANDS: 125 CUBIC YARDS (CHAMBER BACKFILL / PROCESSED AGGREGATE DRIVEWAY BASE)

AREA OF DISTURBANCE IN UPLAND REVIEW AREA: 12,000 SQ. FT. / 0.28 ACRES (DRIVEWAY, FOOTING DRAIN OUTLET RESERVE SEPTIC SYSTEM & UNDERGROUND UTILITIES)
 VOLUME OF FILL PLACED IN UPLAND REVIEW AREA: 150 CUBIC YARDS (DRIVEWAY SHOULDER FILL)
 100 CUBIC YARDS (BANKRUN GRAVEL & PROCESSED AGGREGATE DRIVEWAY BASE)



THE WETLAND SOILS ON THIS MAP WERE IDENTIFIED IN THE FIELD USING THE CRITERIA REQUIRED BY CT PA 72-155 AS AMENDED BY PA 73-671 AND ARE ACCURATELY REPRESENTED ON THIS PLAN.

JOHN P. IANNI
CERTIFIED SOIL SCIENTIST

DATE

ALTERNATE WETLANDS PLAN

PLAN PREPARED FOR			
JAMES AND MICHELE DAYTON			
109 HEBRON ROAD		BOLTON, CT.	
LIMITED PROPERTY / IMPROVEMENT LOCATION SURVEY			
SCALE: 1"=20'	DATE: 1/12/2018	FILE NO. 2017-75	SHEET: 2 OF 3
BUSHNELL ASSOCIATES LLC.			
CIVIL ENGINEERING AND LAND SURVEYING			
563 WOODBRIDGE STREET		MANCHESTER, CT. 06042	
860-643-7875			
REVISIONS: 2/8/2018 WETLANDS CROSSING, LOT 2 BOUNDARY			

**Bolton Inland Wetlands Commission
Regular Meeting January 23, 2018
Minutes
Bolton Town Hall
222 Bolton Center Road, Bolton, CT**

RECEIVED

FEB 05 2018

Town Clerk of Bolton

The Bolton Inland Wetlands Commission held its regular meeting on January 23, 2018 at the Bolton Town Hall. Members in attendance were Vice Chairman James Loersch, Jane Darico and David Ostafin. The Inland Wetlands agent Barbara Kelly was also in attendance. Chairman Ross Lally was not in attendance. James Loersch called the meeting to order at 7:00 P.M.

1. Approval of Agenda

Jane Darico made a motion to approve the agenda as written; the motion was seconded by David Ostafin. The motion passed unanimously.

2. Old Business

Nothing at this time

3. New Business

A. Jurisdictional Ruling- Timber Harvest- Potterton Property- Bailey Road

Brennan Sheahan came before the Commission and described the proposed work. Mr. Sheahan stated they will be selectively thinning out mature saw timber. He also stated a number of ash trees need removed before they become invaluable. Barbara Kelly and Mr. Sheahan went on a site walk of the property. Barbara and James both stated the work proposed qualifies as agriculture activity. David Ostafin made a motion that the proposed work is a permitted use of right stated in section 4.1A in the Inland Wetlands regulations. Jane Darico seconded the motion. The motion passed unanimously

B. Application 2018-1-MTS Builders INC- 15 Loomis Road- Construct Driveway, House, Septic & Grading Within the Upland Review Area

The applicants were not present and Michael Bugnacki was not in town. Mr. Bugnacki asked Barbara to speak on his behalf. The property is of part of the Brook Hollow subdivision and in 2015 the permit was granted by the Inland Wetlands Commission. (Application 2015-2) The permit was granted because the property had a buyer but the deal fell through and the application has since expired. Barbara stated all the clearing was done in 2015 and is now ready for construction of the driveway, house, septic and grading within the upland review area. Barbara stated there is a conservation easement shown on the plans that will need to be marked in the field. James suggested delegating the permit to Barbara and having the same conditions as application 2015-2 as well as adding new conditions about stabilizing the driveway. Jane Darico made a motion to delegate application 2018-1 to Inland Wetlands agent Barbara Kelly. David Ostafin seconded the motion, the motion passed unanimously.

C. Application 2018-2- James & Michele Dayton- 109 Hebron Road- Creation of Residential Lot & Construction of Driveway & Utilities in Wetlands & Associated Construction in the Upland Review Area

James and Michele Dayton came before the Commission to discuss splitting the lot and building a smaller home for themselves and selling the other lot and current residence to their son. The Construction will also include a new driveway and underground utilities that will run across the wetlands and upland review area. James Loersch suggested taking a site walk of the property. James also asked that Andrew Bushnell tag the area where the proposed driveway will be located. James stated to Mr. Dayton to contact Barbara when the proposed driveway is marked. James set February 2nd at 10:00 AM for the site walk. Jane Darico made a motion to table application 2018-2 until the February Inland Wetlands Commission meeting. David Ostafin seconded the motion. The motion passed unanimously.

4. Public Comment

No members of the public were present.

5. Approval of Minutes

A. December 19, 2017 Regular Meeting

David Ostafin made a motion to accept the minutes with the following corrections:

Item 3B change Ross Kelly to Ross Lally

Item 6 change Ross Kelly to Ross Lally

The motion was seconded by Jane Darico. The motion passed unanimously.

6. Wetlands Agent Report

Barbara stated she has been busy speaking with homeowners and following up on different issues. She also stated there is a proposal for an office building on Loomis Road.

7. Other

Barbara Kelly stated 44 Notch Road had severe damage from the wind storm and a few big trees fell on the house. Barbara stated she will speak to Ross more about this at the next meeting.

A. Pesticide Permit Notification- The Pond & Lake Connection

The Pond and Lake Connection would like to know if they can give the Commission electronic notification when pesticides are applied. The Commission all agreed electronic notification was fine.

8. Adjournment

Jane Darco made a motion to adjourn the meeting; the motion was seconded by David Ostafin. The motion passed unanimously and the meeting adjourned at 8:13 P.M.

Respectfully Submitted,

Corrine O'Brien
Board Clerk

PLEASE SEE THE MINUTES OF SUBSEQUENT MEETINGS FOR THE APPROVAL OF THESE MINUTES AND ANY CORRECTIONS HERETO.

BOLTON INLAND WETLANDS COMMISSION
SITE WALK AND SPECIAL MEETING - RECORD

FRIDAY FEBRUARY 2, 2018
AT 10:00 AM
109 HEBRON ROAD, BOLTON

RECEIVED

FEB 02 2018

Town Clerk of Bolton

A quorum of the Inland Wetlands Commission was not present at the noticed site walk, so a formal site walk was not convened. Official minutes were not taken, but this document provides a record.

The site walk began at 10:00 AM. Andrew Bushnell, of Bushnell Associates LLC was present on behalf of the Applicant. Wetland boundary flags and stakes showing the driveway location were present in the field. Commissioner David Ostafin, Vice Chairman James Loersch, and Barbara Kelly, Wetlands Agent, walked the site. Those present observed the location of the proposed driveway crossing in relation to the wetlands, the culverts where the stream flows offsite, and the overall nature of the wetlands.

The site visit ended at 10:23 AM.

Respectfully Submitted,



Barbara Kelly, Agent
Inland Wetlands Commission
Town of Bolton

PLEASE SEE THE MINUTES OF SUBSEQUENT MEETINGS FOR RECORD OF ANY DISCUSSION OF THESE NOTES.



Town of Bolton

222 BOLTON CENTER ROAD • BOLTON, CT 06043

INLAND WETLANDS COMMISSION OF THE TOWN OF BOLTON

February 23, 2018

Mr. Chris Bergin
Shamrock Tree Service
11 Hebron Road
Bolton, CT 06043

Re: Notice of the Inland Wetlands and Watercourses Regulations of the Town of Bolton

Dear Mr. Bergin,

I am writing to confirm our conversation of February 2, 2018. The conversation was prompted by observations that I made on December 19, 2017, from a vantage point on Notch Road. I observed the results of tree cutting both on the slope adjacent to, and within 100 feet of, the stream on the north side of the property at 44 Notch Road.

On behalf of the Inland Wetlands Commission of the Town of Bolton (Commission), I am writing to advise you that according to the Inland Wetlands and Watercourses Regulations of the Town of Bolton:

- Work in, or within 100 feet of, a wetland or watercourse is regulated. Either a permit must be obtained, or the Commission must rule that the proposed activity does not need one.
- Work considered a **regulated activity** is defined as any operation within or use of a wetland or watercourse involving **removal or deposition** of material, or any obstruction, construction, alteration, or pollution of such wetland or watercourse but shall not include activities specifically ruled by the Commission to be exempt.
- Section 2 of the Inland Wetlands and Watercourses Regulations of the Town of Bolton **Material** is defined as any substance, solid or liquid, **organic** or inorganic, including, but not limited to, soil, sediment, aggregate, sand, gravel, clay, peat, muck, mud, debris, refuse, or waste.

To avoid creating a situation where Bolton property owners are in violation, if there is any question about whether work is regulated, you are respectfully requested to check with me or the Land Use Office at Town Hall.