

TOWN OF CROMWELL  
INLAND WETLANDS AND WATERCOURSES AGENCY  
41 WEST STREET, CROMWELL, CT 06416

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**REGULAR MEETING**  
**7:00 WEDNESDAY, AUGUST 2, 2023**  
**TOWN COUNCIL CHAMBERS**  
**CROMWELL TOWN HALL, 41 WEST STREET**

**AGENDA**

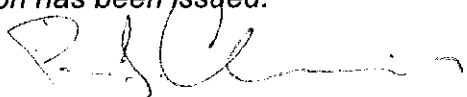
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JoAnn Doyle  
TOWN CLERK  
CROMWELL, CT

1. **Call to Order**
2. **Roll Call**
3. **Seating of Alternates:**
4. **Approval of Agenda:**
5. **Approval of Minutes:**
  - a. April 5, 2023
6. **Development Compliance Officer Report:**
  - a. Status of On-going Project and Existing Cease and Desist Orders
7. **Town Planner Report:**
8. **Public Comments:**
9. **New Business: Accept and Schedule New Applications:**
  - a. Application #23-06: Request to conduct activities within the Upland Review Area to allow for the processing and storage of concrete, bituminous and related demolition materials at 231 R Shunpike Road. Agora Recycled Materials, LLC is the Applicant and Arborio Brothers LLC is the Owner.
  - b. Application #23-07: Request to conduct activities within the Upland Review Area to allow for the construction of a parking lot at 150 Country Squire Drive. Cromwell Village Associates, LCC is the Applicant and the Town of Cromwell is the Owner.
10. **Commissioner's Comments and Reports:**
11. **Adjourn**

| Inland Wetland Report 2023 |  |                       |   |                  |                         |                  |
|----------------------------|--|-----------------------|---|------------------|-------------------------|------------------|
|                            |  |                       |   |                  |                         |                  |
| Permit#                    | Name of Applicant                        | Site Location         | Type of Activity  | Application Date | Status                  | Date of Approval |
| 23-01                      | Francis & Celest Henri                   | 142 Coles Road        | Building detached garage within an upland review area                 | 2/13/2023        | Administrative Approval | 2/24/2023        |
| 23-02                      | Sefo & Azra Duric                        | 10 North Road Ext.    | Inground Pool w/in an upland review area                              | 2/13/2023        | Administrative Approval | 2/24/2023        |
| 23-03                      | Judite Mil-Homens & Carlos M. Mil-Homens | 3 Copper Knoll Lane   | No direct impact to Wetlands for approved building lot                | 3/29/2023        | Approved                | 4/5/2023         |
| 23-04                      | Morecon Builders, LLC                    | 70 County Line Drive  | Parcel is impacted by wetlands & a conservation easement to the south | 3/23/2023        | Approved                | 4/5/2023         |
| 23-05                      | Ed Barriolotta Jr.                       | 373 Main Street       | Property lies in a floodzone for house construction                   | 6/23/2023        | Approved                | 6/28/2023        |
| 23-06                      | Agora Recycled Materials, LLC            | 231R Shunpike Road    | Renewal of existing IWWA application #11-14                           | 7/12/2023        | Pending                 |                  |
| 23-07                      | Cromwell Village Assoc. LLC              | 150 County Line Drive | Construct new parking lot at the Landon w/ upland review activities   | 7/19/2023        | Pending                 |                  |

**TOWN OF CROMWELL  
INLAND WETLANDS AND WATERCOURSES AGENCY**

**APPLICATION TO CONDUCT REGULATED ACTIVITY**

|   |   |
|---|---|
| Street Address:<br>231 Shunpike Road (rear)             | Map/Block/Lot: Map 25 - Lot 9<br>Volume/Page: 667/315   |
| Applicant:<br>Agora Recycled Materials, LLC             | Owner: Arborio Brothers, LLC  |
| Address:<br>231r Shunpike Road, Cromwell, CT 06416-1121 | Address:<br>231 Shunpike Road, Cromwell, CT 06416-1121  |
| Phone: 860-529-7714                                     | <i>I hereby consent to the Applicant acting as my agent for the purpose of this application. I hereby permit the members and agents of the Agency to inspect the subject land both before and after a final decision has been issued.</i><br><br>Signature:  |
| Parcel ID # 00326300                                    |   |

Reason for the Proposed Wetland or Upland Review Area Disturbance (*not a description of the project, but an explanation of why this disturbance is necessary to complete the project*):

This application is a renewal of an existing IWA permit (#11-14), approved on 6 October 2011.

Operations at the facility and in the permitted area have not changed since the previous permit application.

The ongoing operations in the upland review area include processing and storage of concrete, bituminous, and related demolition debris. An approximately 50-ft wide vegetated area and concrete barriers separate the process area from the wetlands. There are no impacts to the wetlands from the operations.

Area of Wetland Impacted by this Project (in square feet or acres): **0 acres**

Area of Upland Review Area Impacted by this Project (in square feet or acres): approximately 1,000 sq. ft

## Description of Alternative Methods Considered, and Justification for Method Chosen:

This is a permit renewal. Operations in the permitted area have not changed since the time of the previous IWA permit (#11-14, October 2011).

## Certification of Notice to Neighboring Municipalities

Is any portion of the wetland or watercourse impacted by this application within 500' of Rocky Hill, Berlin, or Middletown?

☐ Yes ☒ No  
☐ Not Applicable

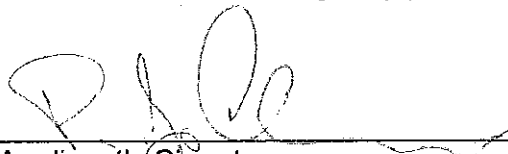
Has a copy of this application been sent to the Rocky Hill, Berlin, or Middletown municipal Inland Wetlands and Watercourses Agency?

☐ Yes ☐ No  
☒ Not Applicable

Has a copy of the plans been sent to the Rocky Hill, Berlin, or Middletown municipal Inland Wetlands and Watercourses Agency?

☐ Yes ☐ No  
☒ Not Applicable

I, the undersigned, hereby certify that the information presented as part of this application is to the best of my knowledge, true and accurate and that should such information be proved to be inaccurate or misleading, any permit issued on the basis of this information may be revoked.

  
 Applicant's Signature

7/12/23  
 Date of Submission

PETER J. ARBORIO  
 Printed Name

***The Cromwell Inland Wetlands and Watercourses Agency has detailed environmental information on many of the wetland areas in town. The applicant is strongly encouraged to request a copy of this information.***



## **Executive Summary – Description of Operations**

**Agora Recycled Materials, LLC**  
**231 Shunpike Road, Cromwell, Connecticut**

### **OVERVIEW OF BENEFICIAL USE**

Agora Recycled Materials, LLC (ARM) has been operating under a beneficial use determination for the past 10 years and intends on continuing to process and reuse excess materials (waste asphalt, concrete, and soil) obtained during road and bridge construction projects in two manufacturing processes at its Cromwell, Connecticut facility to manufacture product for use in road construction. In so doing, ARM will recycle the materials, which are currently categorized as waste by-products from the construction projects, for beneficial use rather than disposing the materials as solid waste. Specifically, ARM plans to recycle the excess materials into useable commercial materials as follows:

- Crush and mill brush slabs and other pieces of asphalt to create roadway pavement material
- Crush slabs of concrete and mix with clean or polluted soil to create roadway base and subbase material

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ARM estimates that between 120 and 1,200 tons of asphalt, concrete and clean or polluted soil will be recycled per year to produce these finished products.

### **DESCRIPTION OF BENEFICIAL USE PROCESS**

#### **Recycling For Beneficial Use - ARM Cromwell Facility**

All excess soil coming into the ARM Cromwell processing/recycling facility will have been precharacterized and only clean or polluted soil will be shipped from the West Hartford facility to the Cromwell processing/recycling facility for processing and recycling. The soil to be shipped from West Hartford to Cromwell will not contain constituents at hazardous levels nor exhibit hazardous characteristics.

The actual processing operation will be conducted periodically, during all times of the year, on an "as needed basis" as the materials (characterized soil from the West Hartford facility, asphalt, and concrete) become available from road or bridge construction projects. The asphalt and concrete slab crushing will take place on a batch basis, each over a several-day period. A concrete crushing machine will be periodically rented and brought on-site on a weekly basis, or as needed. Once crushed and mill brushed, the asphalt will be used to create roadway pavement material. The crushed concrete will be mixed with the clean or polluted soil to create roadway base and subbase material. The concrete content of the product will be approximately 80 percent by weight, with the remainder being comprised of sand, gravel, rock, natural fines, and traces of asphalt. This mixing ratio is similar to that used to create the analogous non-recycled product.

## PROTECTION OF PUBLIC HEALTH, SAFETY AND THE ENVIRONMENT

The materials that will be recycled to create the product will be clean or polluted soil, asphalt, and concrete. Asphalt and concrete are commonly used materials for roadway construction and, in this case, will consist of excess materials from the excavation/trenching of previously constructed roadways. Therefore, the recycled asphalt and concrete, as components in the finished product, will be as protective of public health, safety, and the environment as the original roadways from which they were collected during excavation.

All the soil to be recycled to create the product will be either clean or polluted, and accordingly will not contain pollutants at levels exceeding the baseline RSR soil standards, which are the pollutant mobility criteria for class-GA areas (GA PMC) and the residential direct exposure criteria (Res.DEC) and will not exhibit hazardous characteristics. Therefore, similar to the waste asphalt and concrete, the soil to be recycled by ARM in the creation of these two roadway construction products will likewise be protective of human health, safety, and the environment.

The processing activities will be occurring only on the western parcel of the Cromwell facility. As is depicted in the annotated Erosion & Sediment Control & Site Access Plan, the processing activity for the site will only be within the upland review area. As such, installation of appropriate erosion and sediment control measures along the down-gradient edge of the area of activity will maintain and likely improve the overall quality of stormwater flowing off the site. No additional land will be cleared, and access to the processing area will be via an existing access route, with no roadway construction necessary. The material handling and processing area will be located within an existing open area within the contractor's yard that is currently being used for equipment and material storage.

The site is ideally located in an industrial zone with only a few residential properties nearby to the south. Those properties are buffered from potential noise from the materials processing area by a large swath of existing material consisting of dense vegetation, undergrowth, and mature trees. Materials processing operations are currently and will be screened from view from any adjoining public thoroughfare. With respect to noise and vibration, a concrete crushing operation is only about one-half as loud as a rock crushing operation since the material is generally not as hard to process. The crushing of asphalt is only about one-half as loud as concrete crushing since asphalt is a relatively soft material. Moreover, the crushing operation is performed by a set of jaw-type crushers, rather than the old type of mechanical pounding system. A sound testing study of the crushing machine was conducted in December 2011 to determine the sound level at the property line. The sound testing resulted in a predicted sound level of 44.9 dBA at the nearest property line, approximately 83 meters (approximately 272 feet) from the crusher location.

There will be dust control measures available for implementation in the event that the processing creates dust; however, no nuisance dust is anticipated from the crushing operation. The configuration and operation of the crushing machine minimizes the generation of dust. The crushing is done at the bottom of a hopper, and the materials placed above it keep the dust to a minimum. During the previously conducted noise level testing, dust was not observed being generated by the crushing

machine. To minimize the generation of dust on the site from truck traffic, the processed material will be used to create a relatively hard but permeable surface for the driveway and processing areas, and a water truck will be on-site should dust control be warranted. Street sweepers and anti-tracking pads will be utilized at entrances and exits to ensure that there is no off-site tracking of soil.

#### **RELATED LOCAL AND STATE PERMITS OBTAINED**

The proposed processing/ recycling activity at the ARM Cromwell facility was previously permitted by the Town of Cromwell as Wetlands Permit #11-14 (Demolition Debris Processing). This request is a renewal of the previously permitted activity.

#### **BENEFITS OF BENEFICIAL USE VS. HISTORICAL DISPOSAL OF SOLID WASTE MATERIAL AND MINING OF CLEAN FILL**

Historically, excess polluted/contaminated soil and asphalt and concrete debris obtained during road and bridge construction projects have typically been disposed of as solid waste at a landfill or other permitted facility. Asphalt and concrete fragments are crushed and, when mixed with soil, are used for capping material. Disposing of polluted soil and asphalt and concrete debris results in the consumption of volume at landfills and other disposal facilities, and landfill capacity in the State of Connecticut and elsewhere is dwindling.

For the above reasons, ARM will continue to differentiate polluted soil from contaminated soil and recycle the polluted soil into a useable commercial product- either roadway base/subbase or bituminous concrete aggregate. In being offered for sale as commercial product, these materials will have been recycled for beneficial use instead of being disposed as solid waste. This will not only reduce the volume of soil and debris that is disposed of but will also supply an economical and locally recycled commodity that would otherwise be manufactured from new materials. In addition, the soil to be used to create the base/subbase material will be clean or polluted soil recycled from an existing former use; this will reduce the overall demand for mined virgin clean fill, which is: 1) an exhaustible resource; 2) more beneficially used for residential use; 3) is increasingly difficult to economically obtain; and 4) is consistent with the State of Connecticut's sustainability and resiliency programs.

#### **QUALITY AND ECONOMIC BENEFITS OF FINISHED PRODUCTS**

The finished products will be highly similar to the analogous non-recycled products and will be equally as effective as the analogous products. The asphalt and concrete that will be recycled to create the product will consist of actual waste materials from previously constructed roadways. The final products will be manufactured to meet the industry-recognized quality specifications, which in the State of Connecticut are detailed in Connecticut Department of Transportation (ConnDOT) Form 816.

Once manufactured, these products may be purchased by towns, state agencies or businesses for new roadway or construction projects. There is a clear ongoing demand for these products, as utility trenching and roadway construction/repair projects are being undertaken regularly in the state. ARM

plans to offer these materials as a lower-cost alternative to ConnDOT contractors for ConnDOT construction projects. ARM intends to offer these recycled asphalt and pavement products for sale at a cost that is comparable to or lower than that for these materials when produced from the analogous non-recycled products.



## FUSS & O'NEILL

September 27, 2011

Mr. Craig Minor, Town Planner  
Town of Cromwell  
41 West Street  
Cromwell, CT 06416

RE: Wetland and Watercourse Delineation  
Inland Wetland Application #11-14  
Material Processing in the Upland Review Area

Dear Mr. Minor:

On September 20, 2011 I conducted an on-site wetland and watercourse investigation at the rear property located at 231 Shunpike Road in Cromwell, Connecticut. Arborio Brothers, LLC proposes to conduct material recycling (e.g. processing of soil from roadwork, bridgework, or utility work projects) at the site.

The purpose of this investigation was to determine the inland wetland and watercourse limits at the site. To prepare for this field investigation, the following current literature and mapping were reviewed:

- USGS 7.5 Minute Topographic Mapping (Hartford South, 1992)
- NRCS Web Soil Survey (Release 1.1) (<http://websoilsurvey.nrcs.usda.gov/>)
- Environmental GIS Data for Connecticut (CTDEP, 2003)
- Cromwell GIS Data (Cromwell, 2010)

A wetland, regulated under the Connecticut Inland Wetland and Watercourses Act, is defined as poorly drained, very poorly drained, alluvial, or fluvial as specified by the USDA Natural Resource Conservation Service (NRCS). In general, these soils are saturated to within 20 inches of the surface during a portion of the growing season. These soils have redoximorphic features, a deficiency of oxygen near the surface, and/or ponded water during the growing season. Depth to seasonal high water table is determined by low-chroma mottling or wetness indicators.

Watercourses are also regulated under the Connecticut Inland Wetland and Watercourses Act. Watercourses are rivers, streams, brooks, waterways, lakes, ponds, marshes, swamps, bogs, and all other bodies of water including natural or artificial, vernal or intermittent, public or private. A defined permanent channel and bank, and the occurrence of two or more of the following characteristics delineate intermittent watercourses:

146 Hartford Road  
Manchester, CT  
06040  
t 860.646.2469  
800.286.2469  
f 860.533.5143

[www.fando.com](http://www.fando.com)

Connecticut  
Massachusetts  
Rhode Island  
South Carolina



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- Evidence of scour or deposits of recent alluvium or detritus
- Presence of standing or flowing water for a duration longer than a particular storm incident
- Presence of hydrophytic vegetation

The area where the activity is proposed is relatively level, sloping gently in a south and southwesterly direction. Geologically, the soils are formed from glacial, lake bottom sediments which are predominantly sands and fines (silts and clays). An un-named perennial stream flows along the southern portion of the site in a west southwesterly direction.

The soils observed on site were consistent with the series mapped by NRCS as predominantly alluvial soils (see attached NRCS soil mapping). The limits of the wetland soils were flagged and mapped in the field. The flag series A100 – A120 delimits the extent of wetlands that are within the 100 feet of the area of proposed activity.

The soils near the project activity are mapped by the NRCS as the somewhat poorly drained Bash soil series or Fluvaquent Dystrudepts. These wetland soils consist of very deep, somewhat poorly drained soils formed in recent alluvial deposits. They are nearly level soils on floodplains. Upland soils mapped in the project activity area include the well drained Branford series and the somewhat excessively drained Hartford series.

The dominant vegetation observed within the wetlands includes the following species: red maple (*Acer rubrum*), green ash (*Fraxinus pennsylvanicum*), white oak (*Quercus alba*), yellow birch (*Betula allegheniensis*), spicebush (*Lindera benzoin*), winterberry (*Ilex verticillata*), honeysuckle (*Lonicera* sp.), American hornbeam (*Carpinus caroliniana*), witch hazel (*Hamamelis virginiana*), Japanese barberry (*Berberis thunbergii*), skunk cabbage (*Symplocarpus foetidus*), Jewelweed (*Impatiens capensis*), false nettle (*Boehmeria cylindrica*), Jack in the Pulpit (*Arisaema triphyllum*), tussock sedge (*Carex stricta*), cinnamon fern (*Osmunda cinnamomea*), sensitive fern (*Onoclea sensibilis*), poison ivy (*Toxicodendron radicans*), blue-flag iris (*Iris versicolor*), bracken fern (*Pteridium aquilinum*), boneset (*Eupatorium perfoliatum*), and Reed canary grass (*Phalaris arundinacea*).

The wetland and associated watercourse near the area of proposed activity provide several functions and values. The principal functions and values afforded by these wetlands include groundwater recharge and discharge, floodflow alteration, sediment/toxicant retention, nutrient removal/retention/transformations, production export and wildlife habitat. The watercourse also offers limited finfish habitat.

Under existing conditions, the site does not have an effect on the quality, functions or value of the nearby wetland and watercourse. Currently, there is at least 50 feet of



FUSS & O'NEILL

Mr. Craig Minor  
September 27, 2011  
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vegetated upland that separates the area of activity from the wetland and watercourse. In addition, stormwater from the site is largely retained on the site and infiltrated through the unpaved surfaces. Small areas of concentrated runoff from the site are present but do not result in transport or discharge of sediment the wetland or watercourse. The proposed activity for the site will not encroach any further upon the wetland than the existing forest edge. As such, installation of appropriate erosion and sediment control measures along the down-gradient edge of the proposed area of activity will maintain and likely improve the overall quality of stormwater flowing off the site.

Should you have any questions or comments, please do not hesitate to contact me.

Sincerely,

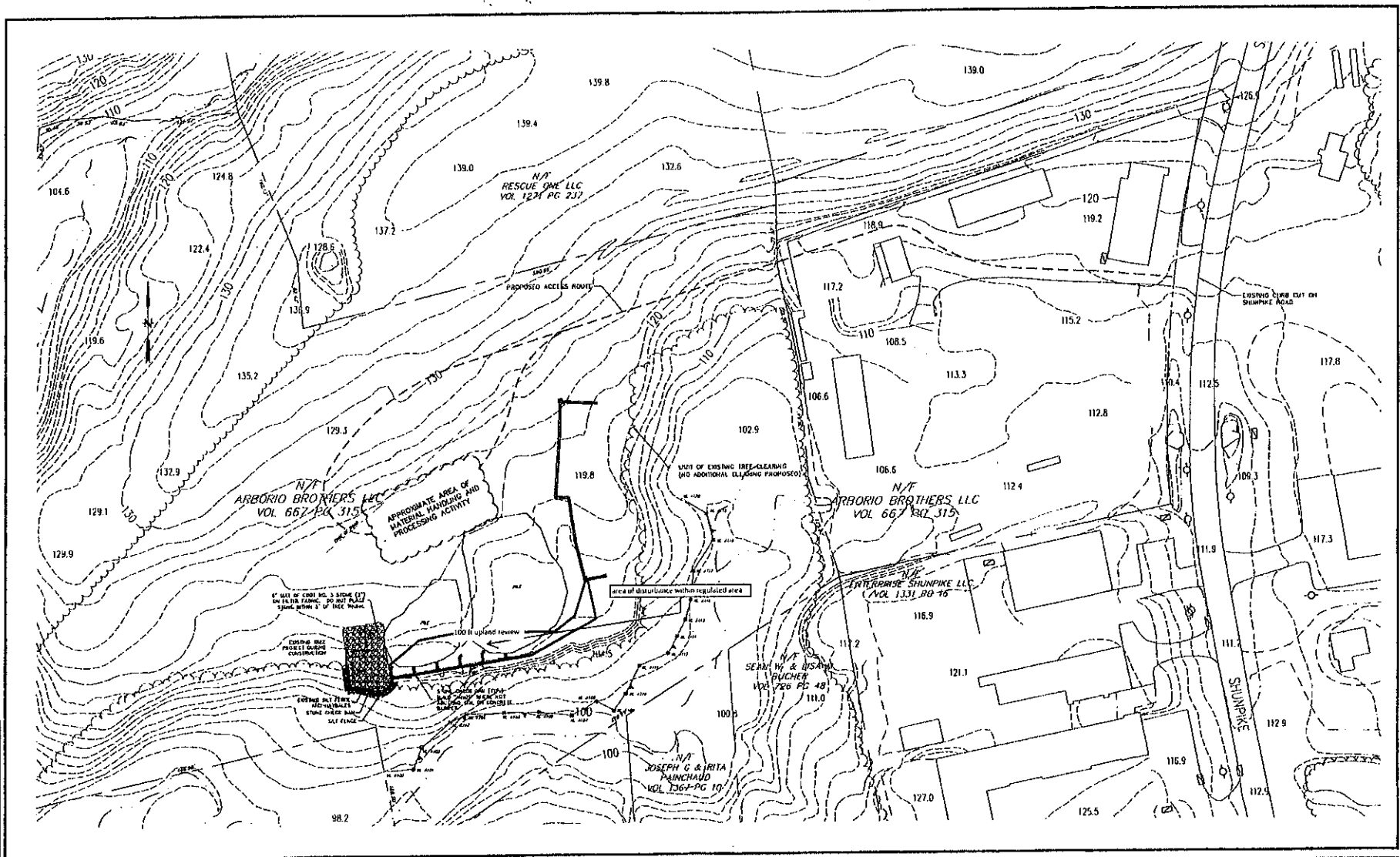
Joshua H. Wilson  
Soil Scientist

c. Atty. Salvatore Petrella  
Mr. Timothy Arborio

Attachments: Site Location Map  
NRCS Soil Drainage Map







|  |      |             |          |             |          |         |   |  |  |  |  |   |  |  |  |  |   |  |  |  |  |   |  |  |  |  |   |  |  |  |  |   |  |  |  |  |   |  |  |  |  |   |  |  |  |  |    |  |  |  |  |  |  |   |   |
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| 1  | DATE | DESCRIPTION | DESIGNER | REVISOR     |          |         |   |  |  |  |  |   |  |  |  |  |   |  |  |  |  |   |  |  |  |  |   |  |  |  |  |   |  |  |  |  |   |  |  |  |  |   |  |  |  |  |    |  |  |  |  |  |  |   |   |
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This plan was prepared by the undersigned for the purpose of showing the location of the proposed access route and the approximate area of material handling and processing activity. It is not to be used for any other purpose.

Drainage Class—State of Connecticut  
(20101409.A30 - Arborio Construction)



## MAP LEGEND









### Area of Interest (AOI)

 Area of Interest (AOI)

### Soils

 Soil Map Units

### Soil Ratings

-  Excessively drained
-  Somewhat excessively drained
-  Well drained
-  Moderately well drained
-  Somewhat poorly drained
-  Poorly drained
-  Very poorly drained
-  Subaqueous
- Not rated or not available






### Political Features

 Cities

### Water Features

 Streams and Canals

### Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

## MAP INFORMATION

Map Scale: 1:2,000 if printed on A-size (8.5" × 11") sheet.

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 accurate map measurements.

Source of Map: Natural Resources Conservation Service  
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>  
Coordinate System: UTM Zone 18N NAD83

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

Soil Survey Area: State of Connecticut  
Survey Area Date: Version 10, Mar 31, 2011

Date(s) aerial images were photographed: 8/13/2006

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.

## Drainage Class

| Drainage Class— Summary by Map Unit — State of Connecticut (CT600) |  |                              |              |                |
|--|--|------------------------------|--------------|----------------|
| Map unit symbol  | Map unit name                              | Rating                       | Acres in AOI | Percent of AOI |
| 23A  | Sudbury sandy loam, 0 to 5 percent slopes  | Moderately well drained      | 0.1          | 1.5%           |
| 30B  | Branford silt loam, 3 to 8 percent slopes  | Well drained                 | 1.1          | 12.0%          |
| 33A  | Hartford sandy loam, 0 to 3 percent slopes | Somewhat excessively drained | 0.0          | 0.5%           |
| 33B  | Hartford sandy loam, 3 to 8 percent slopes | Somewhat excessively drained | 5.0          | 53.9%          |
| 35A  | Penwood loamy sand, 0 to 3 percent slopes  | Excessively drained          | 0.1          | 1.0%           |
| 104  | Bash silt loam                             | Somewhat poorly drained      | 1.9          | 19.9%          |
| 306  | Udorthents-Urban land complex              | Well drained                 | 1.1          | 11.3%          |
| Totals for Area of Interest  |  |                              | 9.3          | 100.0%         |

## Description

"Drainage class (natural)" refers to the frequency and duration of wet periods under conditions similar to those under which the soil formed. Alterations of the water regime by human activities, either through drainage or irrigation, are not a consideration unless they have significantly changed the morphology of the soil. Seven classes of natural soil drainage are recognized-excessively drained, somewhat excessively drained, well drained, moderately well drained, somewhat poorly drained, poorly drained, and very poorly drained. These classes are defined in the "Soil Survey Manual."

## Rating Options

*Aggregation Method:* Dominant Condition

*Component Percent Cutoff:* None Specified

*Tie-break Rule:* Higher

Application # 23-07

**TOWN OF CROMWELL  
INLAND WETLANDS AND WATERCOURSES AGENCY**

**APPLICATION TO CONDUCT REGULATED ACTIVITY**

|   |  |
|---|--|
| Street<br>Address: 150 Country Squire Drive                   | Map/Block/Lot: 14-9 + 15-057   |
|   | Volume/Page: 1675-181+ 1132-248  |
| Applicant: Cromwell Village Assoc., LLC                       | Owner: Town of Cromwell (15-057) -<br>Cromwell Village Associates (14-9)   |
| Address:<br>2319 Whitney Avenue, Suite 1A<br>Hamden, CT 06518 | Address: 41 West Street, Cromwell, CT 06416 (15-057)<br>2319 Whitney Avenue, Suite 1A<br>Hamden, CT 06518 (14-9)   |
| Phone:  | I hereby consent to the Applicant acting as my agent for the purpose of this application. I hereby permit the members and agents of the Agency to inspect the subject land both before and after a final decision has been issued. |
| Parcel ID #: 00336000 + 05078000                              |  |
| Signature:  |  |

Reason for the Proposed Wetland or Upland Review Area Disturbance *(not a description of the project, but an explanation of why this disturbance is necessary to complete the project):*

This project is to construct a new parking lot located at 150 Country Squire Drive to serve the Landon of Cromwell, 39 additional spaces are proposed. Upland review activities include the construction of a new parking lot, driveway, retaining walls and stormwater management practices

Area of Wetland Impacted by this Project 0  
(in square feet or acres):

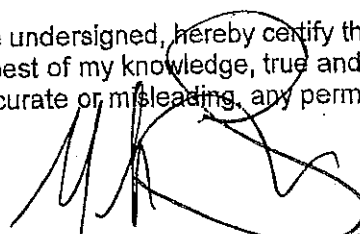
Area of Upland Review Area Impacted by this Project  
(in square feet or acres): ±26,130 s.f.

Application # 23-07

|  |
|--|
| Description of Alternative Methods Considered, and Justification for Method Chosen:  |
| No direct wetland impacts are proposed. Erosion controls will protect the wetland against temporary construction related activities. |
|  |
|  |
|  |

| Certification of Notice to Neighboring Municipalities  |  |
|--|--|
| Is any portion of the wetland or watercourse impacted by this application within 500' of Rocky Hill, Berlin, or Middletown?          | Yes / No <input checked="" type="checkbox"/><br>Not Applicable |
| Has a copy of this application been sent to the Rocky Hill, Berlin, or Middletown municipal Inland Wetlands and Watercourses Agency? | Yes / No <input checked="" type="checkbox"/><br>Not Applicable |
| Has a copy of the plans been sent to the Rocky Hill, Berlin, or Middletown municipal Inland Wetlands and Watercourses Agency?        | Yes / No <input checked="" type="checkbox"/><br>Not Applicable |

I, the undersigned, hereby certify that the information presented as part of this application is to the best of my knowledge, true and accurate and that should such information be proved to be inaccurate or misleading, any permit issued on the basis of this information may be revoked.

  
Applicant's Signature

7/19/23  
Date of Submission

Mark Forlenza  
Printed Name

*The Cromwell Inland Wetlands and Watercourses Agency has detailed environmental information on many of the wetland areas in town.  
The applicant is strongly encouraged to request a copy of this information.*



RECEIVED FOR RECORD  
May 01, 2023 01:40P  
JoAnn Doyle  
TOWN CLERK  
CROMWELL, CT

**TOWN OF CROMWELL  
INLAND WETLANDS AND WATERCOURSES AGENCY  
41 WEST STREET, CROMWELL, CT 06416**

---

***REGULAR MEETING  
7:00 WEDNESDAY, APRIL 5, 2023  
TOWN COUNCIL CHAMBERS  
CROMWELL TOWN HALL, 41 WEST STREET***

**Minutes and Record of Votes**

**Present:** Chairman John Whitney, Joseph Corlis, Peter Omicioli, Wynn Muller, William Yeske

**Absent:** Vice Chairman Stacy Dabrowski, Robert Donohue

**Also present:** Director of Planning and Development Stuart Popper

**1. Call to Order**

The meeting was called to order at 7:01pm by Chairman Whitney.

**2. Roll Call**

The presence of the above members was noted.

**3. Seating of Alternates:**

No alternates were seated

**4. Approval of Agenda:**

A motion was made by Peter Omicioli and seconded by Wynn Muller to approve the agenda. All were in favor; the motion passed.

**5. Approval of Minutes:**

a. December 7, 2022

A motion was made by Wynn Muller and seconded by Joseph Corlis to approve the minutes of December 7, 2022. All were in favor; the motion passed.

**6. Development Compliance Officer Report:**

- a. Status of On-going Project and Existing Cease and Desist Orders

**7. Town Planner Report:**

Mr. Muller asked Mr. Popper about the old Lord Cromwell. Mr. Popper said the Economic Development Commission recommended a 10-year tax abatement and the developer should be bringing that proposal to the Town Council in May. He said the first part of the project would be to demolish the building.

Mr. Popper said that Arbor Meadows is going well and they are in the 4th phase of the project. He said that Goldfish Swim school will be going into the former pet shop and adjacent space at the Shop Rite Center and it is good to see the tenant mix diversify. Mr. Popper said there has been no news on the old 99 Restaurant. Mr. Corlis asked about Price Rite and Mr. Popper said they are looking for a tenant.

**8. Public Comments: none**

**9. New Business: Accept and Schedule New Applications:**

- a. Application #23-03: Request to conduct activities within the Upland Review Area to allow for the construction of a single-family home and driveway at 3 Cooper Knoll Lane. Judite Mil-Homens and Carlos M. Mil-Homens are the Applicants and Carlos M. Mil-Homens is the Owner.

A motion was made by Peter Omicioli and seconded by Joseph Corlis to accept and schedule application #23-03 to be heard tonight. All were in favor; the motion passed.

Jim Cassidy of Hallisey, Pearson and Cassidy, 630 Main Street, Cromwell said this is a vacant parcel of land owned by Judite and Carlos Mil-Homes. He said that 3 Cooper Knoll Lane is 25,011 square feet lot. Mr. Cassidy said that a soil scientist delineated the wetlands and found that on the west side of the property there is a watercourse that falls into the upland review area. He said they are planning a 3,663 square foot single family home which will be one level with a 3 car garage. Mr. Cassidy said that about one-fourth of the property is within the 100 foot upland review area. The house and driveway will be located as far east as possible to still meet the required 40 foot front yard setback while minimizing the impact to the regulated area. The proposed impact is 5,600 square feet and that is for clearing existing vegetation, grading and for construction of the northeast corner of the house and the turnaround for the driveway. Mr. Cassidy said there are no direct impacts to the wetlands.

Mr. Cassidy said the Town Engineer had concerns with flooding since there is a history in that area. He said we will need to mitigate that concern but we are not sure what we will do yet and perhaps it will be an underground filtration system.

Mr. Popper told the Commissioners that they need to decide if this is significant activity or not. He said if it is significant they will schedule this to be heard at the next meeting or they can vote on it tonight.

Mr. Omicioli asked about the memo from Jon Harriman. Mr. Cassidy said there has been flooding in a basement in a home near this site and this project could increase the runoff but we can mitigate that with either of two different processes to simulate the current flow.



A motion was made by Peter Omicioli and seconded by Joseph Corlis to find application #23-03 to be insignificant. All were in favor; the motion passed.

A motion was made by Joseph Corlis and seconded by William Yeske to approve application #23-02 with the condition that the Town Engineer memo of April 5, 2023 is adhered to. All were in favor; the motion passed.

b. Application #23-04: Request to conduct activities within the Upland Review Area to allow for the construction of a single story, 6,000 square foot contractor's building and 12 parking spaces at 70 County Line Drive. Morecon Builders, LLC the Applicants and Nova Sky Properties, LLC is the Owner.

A motion was made by Peter Omicioli and seconded by Joseph Corlis to accept and schedule application #23-04 to be heard tonight. All were in favor; the motion passed.

Justin Packard, Hallisey, Pearson and Cassidy, 630 Main Street, Cromwell said that this site is on the south side of County Line Drive. He said the applicant is seeking to construct 6,600 square foot one story contractors building and 12 parking spaces on the property at 70 County Line Drive. He said this site has wetlands on the south side and the 100 foot upland review area runs through half of the property and is 6,872 square feet. He said one third of the 30,587 square foot site is encumbered by a Conservation Easement. Mr. Packard said that impact to the upland review area to construct the building, the parking area and grading is 6,872 or 0.1577 acres. He said there will be a catch basin with hooded outlets and an underground pipe system with an outlet to an existing underground infiltration system. He said this Commission approved a similar plan when the original parcel was subdivided to create this building lot.

Jim Cassidy of Hallisey, Pearson and Cassidy, 630 Main Street, Cromwell said the original lot was part of the four lot subdivision for Brothers Automotive. He said we won't go further than the conservation easement and no drainage from this site will go back to the wetlands.

Mr. Omicioli asked about the sloping of the property and Mr. Packard said it slopes down to the south but the drainage will be pitched to drain to County Line Drive. Mr. Omicioli asked what kind of business this will be and Mr. Cassidy said it is Morecon Builders and they will use the building for a contractor's office and storage.

Mr. Popper said that Mr. Driska had no comments on the application and the Town Engineer will review and consider the drainage with the Planning and Zoning application for the site plan approval.

A motion was made by William Yeske and seconded by Peter Omicioli to find application #23-04 insignificant. All were in favor; the motion passed.

A motion was made by Peter Omicioli and seconded by William Yeske to approve application #23-04. All were in favor; the motion passed.

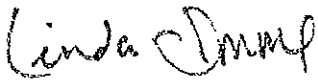
**10. Public Hearing:** none

**11. Commissioner's Comments and Reports:** none

## 12. Adjourn

A motion was made by Peter Omicioli and seconded by William Yeske to adjourn at 7:34pm. All were in favor; the motion passed.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Linda Imme".

Linda Imme  
Recording Clerk





**MILONE & MACBROOM**

99 Realty Drive  
Cheshire, Connecticut 06410  
(203) 271-1773  
www.mminc.com

## SOILS MAP

CROMWELL PROPOSED MULTI-FAMILY RESIDENT

150 COUNTRY SQUIRE DRIVE  
CROMWELL, CONNECTICUT

SOURCE: 2016, CT DEEP AERIAL IMAGERY

DATE: 21 MAY 2018

SCALE: 1"=50'

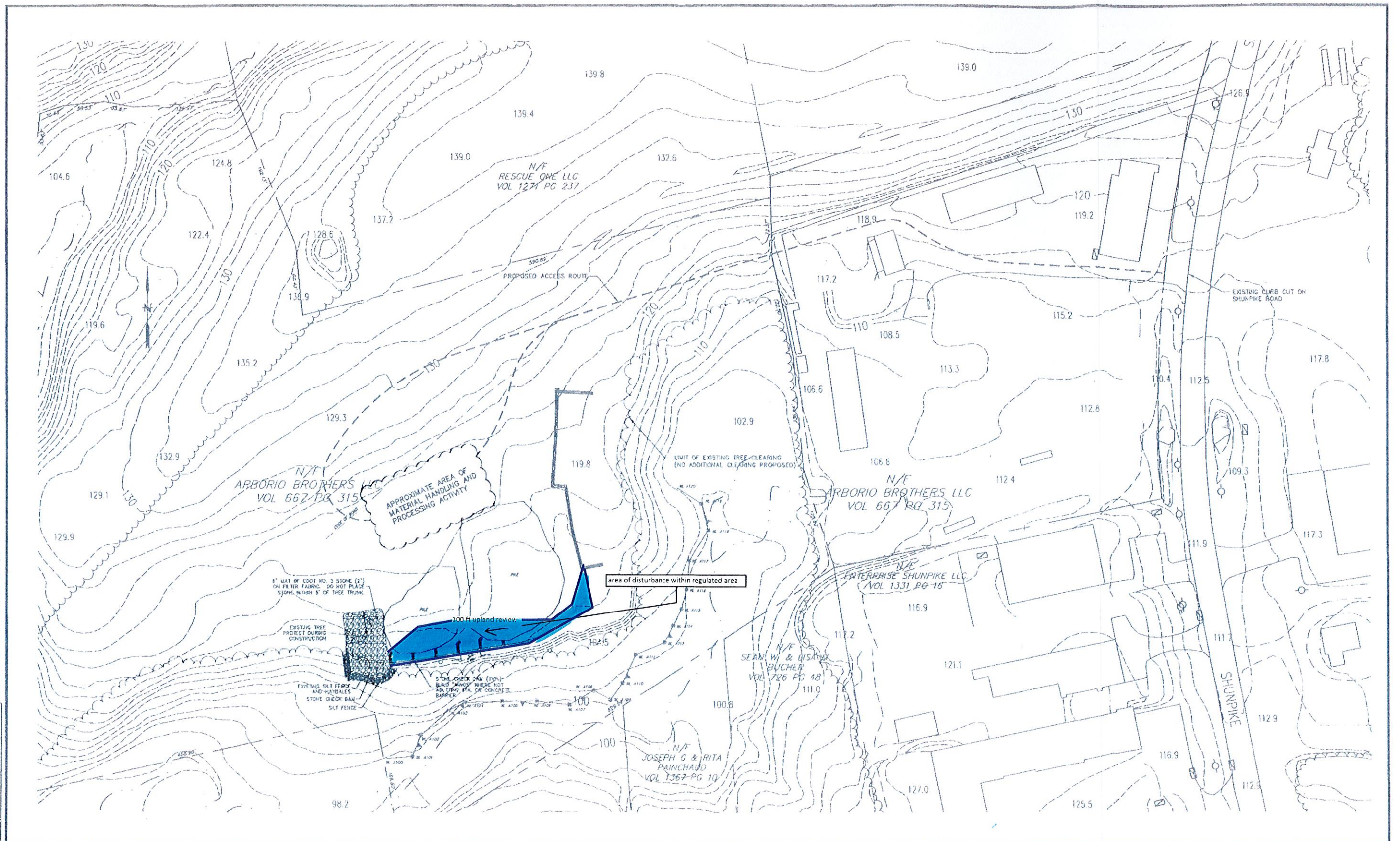
PROJ. NO.: 2398-07

|                 |              |                |
|-----------------|--------------|----------------|
| DESIGNED<br>KFK | DRAWN<br>KFK | CHECKED<br>MBR |
|-----------------|--------------|----------------|

DRAWING NAME:

**FIG. 2**

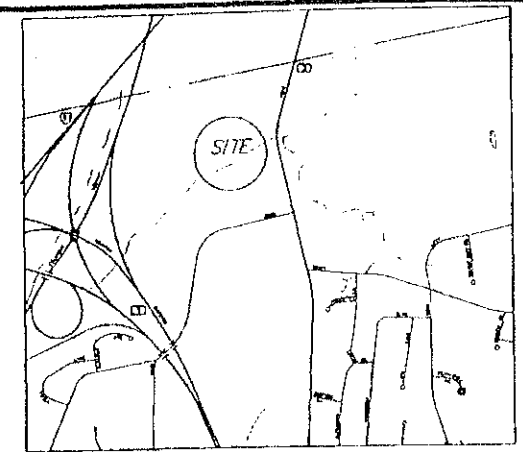


[illegible]

PROJ. No. 20101409A30  
DATE 11/09/2011

CE-102





### LEGEND

PROPERTY LINE

EASEMENT AND

EDGE OF WATER

FENCELINE

WETPLACES

EXISTING CONTIGUOUS

NEED SCOUTING

WET FENCE

WETPLACES FLAG

## KAP REFERENCES

1. PLAN SHOWING PROPOSED LOCATION OF LOT-1 & EVANS ARBORD LOT-2 PETER J. EVANS ARBORD 2301 SHAMANE ROAD CROWNELL, CT DATED APRIL 17, 1986 SCALE 1"=40' REVISION MAY 20, 1986 BY ROBERT J. ROONEY LSC

2. LOT PLAN SHOWING PROPOSED LOCATION OF STORAGE BUILDING BELONGING TO J. EVANS ARBORD 2301 SHAMANE ROAD CROWNELL, CT DATE SCALE 1"=40' DATED 11-5-78

3. REDEVELOPMENT PLAN BROOKSIDE BROADSIDE COLES ROAD CROWNELL, CONNECTICUT PREPARED FOR PRIMER (OWNERS) & DEVELOPMENT SCALE 1"=40' DATED FEB. 29, 1988 SHEET 1 OF A REVISION OCT. 23, 1994 OCT. 23, 1994 MAY 23, 1999 BY NALCISE, PETERSON & CASSIDY

4. TOWN OF CROWNELL, PLAN SHOWING PROPOSED LOCATION OF POWER SCALE 1"=40' JUNE 1974 R.P. LEMMA LSC

5. PLAN SHOWING LOT LINE REVISIONS FOR LOT 1 & 2 PAR 35 COLES BROOK COUNCILMAN PARK ASSOCIATES, LLC SHAMANE ROAD CROWNELL, CONNECTICUT DATE OCT. 12, 2004 SCALE 1"=50' REVISION JAN. 22, 2005 KENT T. EWALD LLC

SUMMARY NOTES:

1. THIS SURVEY WAS BEING PROMULGATED PURSUANT TO THE REGULATIONS OF CONGRESSIONAL STATE AGENCIES SECTIONS 20-3000-1 THROUGH 20-3000-10 AND THE STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT, AS PRESENTED AND ADOPTED BY THE CONGRESSIONAL ASSOCIATION OF LAND SURVEYORS AND ON SEPTEMBER 26, 1956.

THE TYPE OF SURVEY PERFORMED IS A DATA ACQUISITION PLAN AND TOPOGRAFCAL SURVEY.

THE TOPOGRAFCAL DATA OBTAINED ON THIS SURVEY CONTRIBUES TO THE ACCURACY OF A CLASS 10 TOPOGRAFCAL SURVEY. THE TOPOGRAFCAL WAS OBTAINED FROM THE TOWN OF EASTON, CT.

THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE ACCURACY STANDARDS OF A CLASS 6 SURVEY.

THIS SURVEY DOES NOT REPRESENT A PROPERTY/BOUNDARY QUESTION. A BOUNDARY DETERMINATION IS NOT EXPRESSED OR IMPLIED. THE PURPOSE OF THIS BOUNDARY SURVEY WAS TO BE CONVEYED TO THE PUBLIC. THE DATA OBTAINED FROM THIS SURVEY IS NOT INTENDED TO BE USED FOR ANY PURPOSE OTHER THAN THAT FOR WHICH IT WAS OBTAINED AND IS DEEMED APPROPRIATE.

MELAND CERTIFICATION

WE TOWNS WERE DELINEATED IN ACCORDANCE WITH THE STATE OF CONNECTICUT  
WILAND WETLANDS AND WATERCOURSES ACTS 22A-16 TO 22A-15 (INCLUSIVE)  
TO THE BEST OF MY KNOWLEDGE, THE WETLAND DELINEATIONS DEPICTED HEREON  
ARE TRUE AND ACCURATE.

JOSHUA M. NELSON  
REGISTERED SOL SCIENTIST

[illegible]

56



TO MY KNOWLEDGE AND BELIEF, THESE MAPS ARE SUBSTANTIALLY CORRECT  
AS NOTED HEREON

DAVID A. CARICHO

SCALE:  
HORIZ: 1" = 40'  
VERT:  
DARTUM:  
HORIZ: NAD 83  
VERT: NAVD 88  
40 20 0 40  
GRAPHIC SCALE



**FUSS & O'NEILL**  
148 HARTFORD ROAD  
MANCHESTER, CONNECTICUT 06040  
860.646.2459  
[www.fuss.com](http://www.fuss.com)

AGORA RECYCLED MATERIALS, LLC  
DATA ACCUMULATION PLAN  
231 SHUNPIKE ROAD

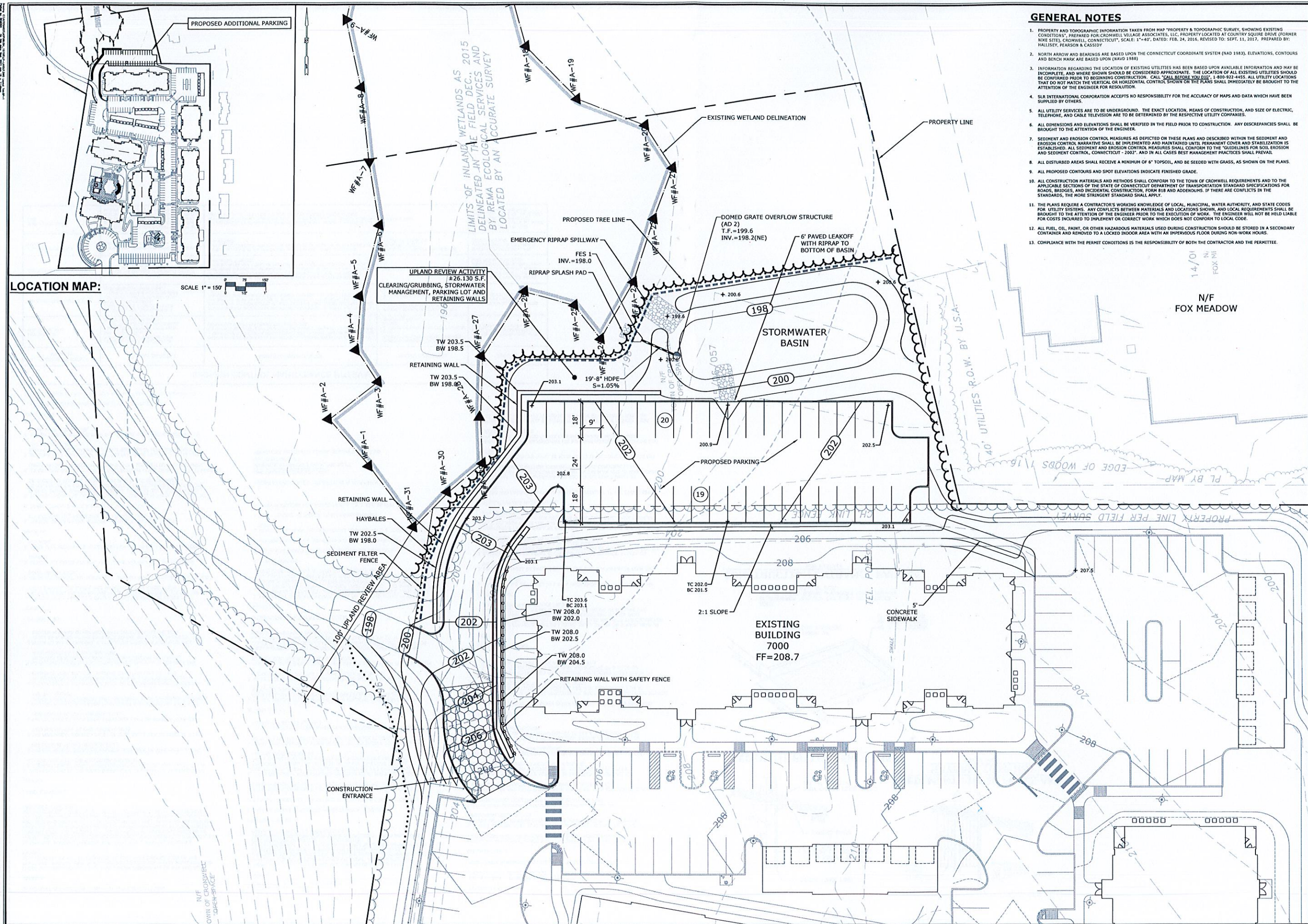
|          |             |
|----------|-------------|
| CROMWELL | CONNECTICUT |
|----------|-------------|

PRD3, No.: 20101409A30  
DATE: 09/21/11

FRONT. No.: 2610  
DATE: 09/21/11

VT-01







SEDIMENT & EROSION CONTROL SPECIFICATIONS

GENERAL:

THESE GUIDELINES SHALL APPLY TO ALL WORK CONSISTING OF ANY AND ALL TEMPORARY AND/OR PERMANENT MEASURES TO CONTROL WATER POLLUTION AND SOIL EROSION, AS MAY BE REQUIRED, DURING THE CONSTRUCTION OF THE PROJECT.

IN GENERAL, ALL CONSTRUCTION ACTIVITIES SHALL PROCEED IN SUCH A MANNER SO AS NOT TO POLLUTE ANY WETLANDS, WATERCOURSE, WATERBODY, AND CONDUIT CARRYING WATER, ETC. THE CONTRACTOR SHALL LIMIT, INsofar AS POSSIBLE, THE SURFACE AREA OF EARTH MATERIALS EXPOSED BY CONSTRUCTION METHODS AND IMMEDIATELY PROVIDE PERMANENT AND TEMPORARY POLLUTION CONTROL MEASURES TO PREVENT CONTAMINATION OF ADJACENT WETLANDS, WATERCOURSES, AND WATERBODIES, AND TO PREVENT, INsofar AS POSSIBLE, EROSION ON THE SITE.

LAND GRADING

GENERAL:

1. THE RESHAPING OF THE GROUND SURFACE BY EXCAVATION AND FILLING OR A COMBINATION OF BOTH, TO OBTAIN PLANNED GRADES, SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING CRITERIA:

a. THE CUT FACE OF EARTH EXCAVATION SHALL NOT BE STEEPER THAN TWO HORIZONTAL TO ONE VERTICAL (2:1).

b. THE PERMANENT EXPOSED FACES OF FILLS SHALL NOT BE STEEPER THAN TWO HORIZONTAL TO ONE VERTICAL (2:1).

c. THE CUT FACE OF ROCK EXCAVATION SHALL NOT BE STEEPER THAN ONE HORIZONTAL TO FOUR VERTICAL (1:4).

d. PROVISION SHOULD BE MADE TO CONDUCT SURFACE WATER SAFELY TO STORM DRAINS TO PREVENT SURFACE RUNOFF FROM DAMAGING CUT FACES AND FILL SLOPES.

e. EXCAVATIONS SHOULD NOT BE MADE SO CLOSE TO PROPERTY LINES AS TO ENDANGER ADJOINING PROPERTY WITHOUT PROTECTING SUCH PROPERTY FROM EROSION, SLIDING, SETTLING, OR CRACKING.

f. NO FILL SHOULD BE PLACED WHERE IT WILL SLIDE OR WASH UPON THE PREMISES OF ANOTHER OWNER OR UPON ADJACENT WETLANDS, WATERCOURSES, OR WATERBODIES.

g. PRIOR TO ANY REGRADING, A STABILIZED CONSTRUCTION ENTRANCE SHALL BE PLACED AT THE ENTRANCE TO THE WORK AREA IN ORDER TO REDUCE MUD AND OTHER SEDIMENTS FROM LEAVING THE SITE.

TOPSOILING

GENERAL:

1. TOPSOIL SHALL BE SPREAD OVER ALL EXPOSED AREAS IN ORDER TO PROVIDE A SOIL MEDIUM HAVING FAVORABLE CHARACTERISTICS FOR THE ESTABLISHMENT, GROWTH, AND MAINTENANCE OF VEGETATION.

2. UPON ATTAINING FINAL SUBGRADES, SCARIFY SURFACE TO PROVIDE A GOOD BOND WITH TOPSOIL.

3. REMOVE ALL LARGE STONES, TREE LIMBS, ROOTS AND CONSTRUCTION DEBRIS.

4. APPLY LIME ACCORDING TO SOIL TEST OR AT THE RATE OF TWO (2) TONS PER ACRE.

MATERIAL:

1. TOPSOIL SHOULD HAVE PHYSICAL, CHEMICAL, AND BIOLOGICAL CHARACTERISTICS FAVORABLE TO THE GROWTH OF PLANTS.

2. TOPSOIL SHOULD HAVE A SANDY OR LOAMY TEXTURE.

3. TOPSOIL SHOULD BE RELATIVELY FREE OF SUBSOIL MATERIAL AND MUST BE FREE OF STONES (OVER 1" IN DIAMETER), LUMPS OF SOIL, ROOTS, TREE LIMBS, TRASH, OR CONSTRUCTION DEBRIS. IT SHOULD BE FREE OF ROOTS OR RHIZOMES SUCH AS THISTLE, NUTGRASS, AND QUACKGRASS.

4. AN ORGANIC MATTER CONTENT OF SIX PERCENT (6%) MINIMUM, TWENTY PERCENT (20%) MAXIMUM IS REQUIRED. AVOID LIGHT COLORED SUBSOIL MATERIAL.

5. SOLUBLE SALT CONTENT OF OVER 500 PARTS PER MILLION (PPM) IS LESS SUITABLE. AVOID TIDAL MARSH SOILS BECAUSE OF HIGH SALT CONTENT AND SULFUR ACIDITY.

6. THE pH SHOULD BE MORE THAN 6.0. IF LESS, ADD LIME TO INCREASE pH TO AN ACCEPTABLE LEVEL.

APPLICATION

1. AVOID SPREADING WHEN TOPSOIL IS WET OR FROZEN.

2. SPREAD TOPSOIL UNIFORMLY TO A DEPTH OF AT LEAST SIX INCHES (6").

TEMPORARY VEGETATIVE COVER

GENERAL:

1. TEMPORARY VEGETATIVE COVER SHALL BE ESTABLISHED ON ALL UNPROTECTED AREAS THAT PRODUCE SEDIMENT, AREAS WHERE FINAL GRADING HAS BEEN COMPLETED, AND AREAS WHERE THE ESTIMATED PERIOD OF BARE SOIL EXPOSURE IS MORE THAN 30 DAYS. AREAS TO BE LEFT EXPOSED FOR MORE THAN 30 DAYS SHALL BE SEEDED WITHIN 7 DAYS OF SUSPENSION OF CONSTRUCTION ACTIVITIES.

TEMPORARY VEGETATIVE COVER SHALL BE APPLIED IF AREAS WILL NOT BE PERMANENTLY SEEDED BY SEPTEMBER 1.

SITE PREPARATION:

1. INSTALL REQUIRED SURFACE WATER CONTROL MEASURES.

2. REMOVE LOOSE ROCK, STONE, AND CONSTRUCTION DEBRIS FROM AREA.

3. APPLY LIME ACCORDING TO SOIL TEST OR AT A RATE OF ONE (1) TON OF GROUND DOLOMITIC LIMESTONE PER ACRE (5 LBS. PER 100 SQ. FT.).

4. APPLY FERTILIZER ACCORDING TO SOIL TEST OR AT THE RATE OF 300 LBS. OF 10-10-10 PER ACRE (7 LBS. PER 1,000 SQ. FT.) AND SECOND APPLICATION OF 200 LBS. OF 10-10-10 (5 LBS. PER 1,000 SQ. FT.) WHEN GRASS IS FOUR INCHES (4") TO SIX INCHES (6") HIGH. APPLY ONLY WHEN GRASS IS DRY.

5. UNLESS HYDROSEEDING, WORK IN LIME AND FERTILIZER TO A DEPTH OF FOUR (4") INCHES USING A DISK OR ANY SUITABLE EQUIPMENT.

6. TILLAGE SHOULD ACHIEVE A REASONABLY UNIFORM LOOSE SEEDBED. WORK ON CONTOUR IF SITE IS SLOPING.

ESTABLISHMENT:

1. SELECT APPROPRIATE SPECIES FOR THE SITUATION. NOTE RATES AND SEEDING DATES (SEE VEGETATIVE COVER SELECTION & MULCHING SPECIFICATION BELOW).

2. APPLY SEED UNIFORMLY ACCORDING TO THE RATE INDICATED BY BROADCASTING, DRILLING, OR HYDRAULIC APPLICATION.

3. UNLESS HYDROSEEDING, COVER RYEGRASS SEEDS WITH NOT MORE THAN 1/4 INCH OF SOIL USING SUITABLE EQUIPMENT.

4. MULCH IMMEDIATELY AFTER SEEDING IF REQUIRED. (SEE VEGETATIVE COVER SELECTION & MULCHING SPECIFICATION BELOW.) APPLY STRAW OR HAY MULCH AND ANCHOR TO SLOPES GREATER THAN 3% OR WHERE CONCENTRATED FLOW WILL OCCUR.

PERMANENT VEGETATIVE COVER

GENERAL:

1. PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED AS VARIOUS SECTIONS OF THE PROJECT ARE COMPLETED IN ORDER TO STABILIZE THE SOIL, REDUCE DOWNSTREAM DAMAGE FROM SEDIMENT AND RUNOFF, AND TO ENHANCE THE AESTHETIC NATURE OF THE SITE. IT WILL BE APPLIED TO ALL CONSTRUCTION AREAS SUBJECT TO EROSION WHERE FINAL GRADING HAS BEEN COMPLETED AND A PERMANENT COVER IS NEEDED.

SITE PREPARATION:

1. INSTALL REQUIRED SURFACE WATER CONTROL MEASURES.

2. REMOVE LOOSE ROCK, STONE, AND CONSTRUCTION DEBRIS FROM AREA.

3. PERFORM ALL PLANTING OPERATIONS PARALLEL TO THE CONTOURS OF THE SLOPE.

4. APPLY TOPSOIL AS INDICATED ELSEWHERE HEREIN.

5. APPLY FERTILIZER ACCORDING TO SOIL TEST AND AS SPECIFIED.

VEGETATIVE COVER SELECTION & MULCHING

TEMPORARY VEGETATIVE COVER:

PERENNIAL RYEGRASS 3 LBS./1,000 SQ. FT. (TOLLUM PERENNE)

PERMANENT VEGETATIVE COVER: SEE SPECIFICATIONS

TEMPORARY MULCHING:

STRAY OR HAY 70-90 LBS./1,000 SQ. FT. (TEMPORARY VEGETATIVE AREAS)

WOOD FIBER IN HYDRONULCH SLURRY 25-50 LBS./1,000 SQ. FT.

ESTABLISHMENT:

1. SMOOTH AND FIRM SEEDED WITH CULTIPACKER OR OTHER SIMILAR EQUIPMENT PRIOR TO SEEDING (EXCEPT WHEN HYDROSEEDING).

2. SELECT ADAPTED SEED MIXTURE FOR THE SPECIFIC SITUATION. NOTE RATES AND THE SEEDING DATES (SEE VEGETATIVE COVER SELECTION & MULCHING SPEC. BELOW).

3. APPLY SEED UNIFORMLY ACCORDING TO RATE INDICATED, BY BROADCASTING, DRILLING, OR HYDRAULIC APPLICATION.

4. COVER GRASS AND LEGUME SEED WITH NOT MORE THAN 1/4 INCH OF SOIL WITH SUITABLE EQUIPMENT (EXCEPT WHEN HYDROSEEDING).

5. MULCH IMMEDIATELY AFTER SEEDING, IF REQUIRED, ACCORDING TO TEMPORARY MULCHING SPECIFICATIONS. (SEE VEGETATIVE COVER SELECTION & MULCHING SPECIFICATION BELOW).

6. USE PROPER INOCULANT ON ALL LEGUME SEEDINGS, USE FOUR (4) TIMES NORMAL RATES WHEN HYDROSEEDING.

7. USE SOO WHERE THERE IS A HEAVY CONCENTRATION OF WATER AND IN CRITICAL AREAS WHERE IT IS IMPORTANT TO GET A QUICK VEGETATIVE COVER TO PREVENT EROSION.

MAINTENANCE:

1. TEST FOR SOIL ACIDITY EVERY THREE (3) YEARS AND LIME AS REQUIRED.

2. ON SITES WHERE GRASSES PREDOMINATE, BROADCAST ANNUALLY 500 POUNDS OF 10-10-10 FERTILIZER PER ACRE (12 LBS. PER 1,000 SQ. FT.) OR AS NEEDED ACCORDING TO ANNUAL SOIL TESTS.

3. ON SITES WHERE LEGUMES PREDOMINATE, BROADCAST EVERY THREE (3) YEARS OR AS INDICATED BY SOIL TEST 300 POUNDS OF 0-20-20 OR EQUIVALENT PER ACRE (8 LBS PER 1,000 SQ. FT.).

EROSION CHECKS

GENERAL:

1. TEMPORARY PREVIOUS BARRIERS USING BALES OF HAY OR STRAW, HELD IN PLACE WITH STAKES DRIVEN THROUGH THE BALES AND INTO THE GROUND OR GEOTEXTILE FABRIC FASTENED TO A FENCE POST AND BURIED INTO THE GROUND, SHALL BE INSTALLED AND MAINTAINED AS REQUIRED TO CHECK EROSION AND REDUCE SEDIMENTATION.

CONSTRUCTION:

1. BALES SHOULD BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.

2. EACH BALE SHALL BE EMBEDDED INTO THE SOIL A MINIMUM OF FOUR (4") INCHES.

3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY WOOD STAKES OR REINFORCEMENT BARS DRIVEN THROUGH THE BALES AND INTO THE GROUND. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARD THE PREVIOUSLY LAID BALE TO FORCE BALES TOGETHER.

4. GEOTEXTILE FABRIC SHALL BE SECURELY ANCHORED AT THE TOP OF A THREE FOOT (3') HIGH FENCE AND BURIED A MINIMUM OF FOUR INCHES (4") TO THE SOIL. SEAMS BETWEEN SECTIONS OF FILTER FABRIC SHALL OVERLAP A MINIMUM OF TWO FEET (2').

INSTALLATION AND MAINTENANCE:

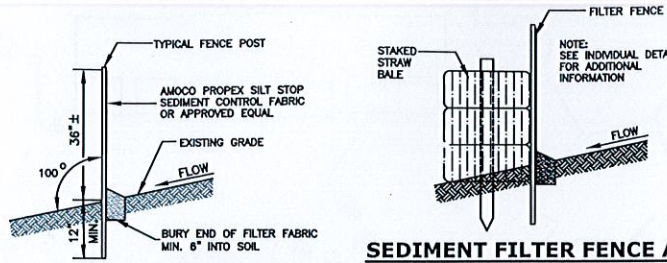
1. BALED HAY EROSION BARRIERS SHALL BE INSTALLED AT ALL STORM SEWER INLETS.

2. BALED HAY EROSION BARRIERS AND GEOTEXTILE FENCE SHALL BE INSTALLED AT THE LOCATION INDICATED ON THE PLAN AND IN ADDITIONAL AREAS AS MAY BE DEEMED APPROPRIATE DURING CONSTRUCTION.

3. ALL EROSION CHECKS SHALL BE MAINTAINED UNTIL ADJACENT AREAS ARE STABILIZED.

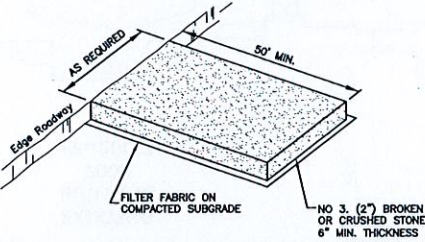
4. INSPECTION SHALL BE FREQUENT (AT MINIMUM MONTHLY AND BEFORE AND AFTER HEAVY RAIN) AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.

5. EROSION CHECKS SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORMWATER FLOW OR DRAINAGE.



SEDIMENT FILTER FENCE (GSF)

NOT TO SCALE



CONSTRUCTION ENTRANCE PAD (CE)

NOT TO SCALE

| EROSION CONTROL MAINTENANCE INTERVALS |  |  |   |   |
|---------------------------------------|--|--|---|---|
| EROSION CONTROL MEASURE               | CONTROL OBJECTIVE  | INSPECTION/MAINTENANCE   | FAILURE INDICATORS  | REMOVAL   |
| SILT FENCE (SF)<br>(RELATED: IP, STK) | - INTERCEPT AND REDIRECT/DETAIN SMALL AMOUNTS OF SEDIMENT FROM SMALL DISTURBED AREAS.<br>- DECREASE VELOCITY OF SHEET FLOW.<br>- PROTECT SENSITIVE SLOPES OR SOILS FROM EXCESSIVE WATER FLOW.                          | INSPECT AT LEAST ONCE A WEEK AND WITHIN 24 HOURS OF THE END OF A STORM WITH A RAINFALL OF 0.5 INCHES OR MORE. ACCUMULATED SEDIMENT MUST BE REMOVED ONCE ITS DEPTH IS EQUAL TO 75% THE TRENCH HEIGHT. INSPECT FREQUENTLY DURING PUMPING OPERATIONS IF USED FOR DEWATERING OPERATIONS.                                       | - PHYSICAL DAMAGE OR DECOMPOSITION<br>- EVIDENCE OF OVERTOPPED OR UNDERCUT FENCE<br>- EVIDENCE OF SIGNIFICANT FLOWS EVADING CAPTURE<br>- REPETITIVE FAILURE | SILT FENCE MAY BE REMOVED AFTER UPHILL AND SENSITIVE AREAS HAVE BEEN PERMANENTLY STABILIZED.  |
| HAY BALES/STRAW WATTLES (HB)          | - INTERCEPT AND REDIRECT/DETAIN SMALL AMOUNTS OF SEDIMENT FROM SMALL DISTURBED AREAS.<br>- DECREASE VELOCITY OF SHEET FLOW.<br>- PROTECT SENSITIVE SLOPES OR SOILS FROM EXCESSIVE WATER FLOW.                          | INSPECT AT LEAST ONCE A WEEK AND WITHIN 24 HOURS OF THE END OF A STORM WITH A RAINFALL OF 0.5 INCHES OR MORE. ACCUMULATED SEDIMENT MUST BE REMOVED ONCE THE DEPTH OF SEDIMENT IS EQUAL TO 75% THE HEIGHT OF THE BARRIER. INSPECT FREQUENTLY DURING PUMPING OPERATIONS IF USED FOR DEWATERING OPERATIONS.                   | - PHYSICAL DAMAGE OR DECOMPOSITION<br>- EVIDENCE OF OVERTOPPED OR UNDERCUT FENCE<br>- EVIDENCE OF SIGNIFICANT FLOWS EVADING CAPTURE<br>- REPETITIVE FAILURE | HAY BALES MAY BE REMOVED AFTER UPHILL AREAS HAVE BEEN PERMANENTLY STABILIZED.   |
| CONSTRUCTION ENTRANCE (CE)            | - REDUCE THE TRACKING OF SEDIMENT OFF-SITE ONTO PAVED SURFACES.  | INSPECT AT THE END OF EACH WORK DAY AND IMMEDIATELY REPAIR DAMAGES. PERIODIC ADDITION OF STONE, OR LENGTHENING OF ENTRANCE MAY BE REQUIRED AS CONDITIONS DEMAND. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PAVED SURFACES AS A RESULT OF INSUFFICIENCY OF CONSTRUCTION ENTRANCE SHALL BE IMMEDIATELY REMOVED. | - SEDIMENT IN ROADWAY ADJACENT TO SITE  | CONSTRUCTION ENTRANCE MAY BE REMOVED ONCE THE SITE HAS BEEN PERMANENTLY STABILIZED, AND ALL OTHER SECTIONS OF ROADWAY HAVE BEEN PERMANENTLY PAVED.  |
| STOCKPILE PROTECTION (STK)            | - RETAIN SOIL STOCKPILE IN LOCATIONS SPECIFIED, AND REDUCE WATER TRANSPORT.  | INSPECT SILT FENCE AT THE END OF EACH WORK DAY AND IMMEDIATELY REPAIR DAMAGES. PERIODIC REINFORCEMENT OF SILT FENCE, OR ADDITION OF HAY BALES MAY BE NECESSARY.  | - EVIDENCE OF STOCK PILE DIMINISHING DUE TO RAIN EVENTS<br>- FAILURE OF SILT FENCE  | STOCKPILE PROTECTION MAY BE REMOVED ONCE THE STOCKPILE IS USED OR REMOVED.  |
| DUST PROTECTION (DC)                  | - TO PREVENT MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES, WHICH MAY CAUSE BOTH OFF-SITE AND ON-SITE DAMAGE, BE A HEALTH HAZARD TO HUMANS, WILDLIFE, AND PLANT LIFE, OR CREATE A HAZARD BY REDUCING TRAFFIC VISIBILITY. | USE MECHANICAL SWEEPING DAILY ON PAVED AREAS WHERE DUST AND FINE MATERIALS ACCUMULATE, IF HEAVILY TRAFFICKED AND SEDIMENT ACCUMULATES QUICKLY. HOISTEN UNPAVED TRAVELWAYS TO CONTROL DUST WHEN EVIDENCE OF AIRBORNE DUST.  | - AIRBORNE DUST   | REPEAT APPLICATION OF DUST CONTROL MEASURES UNTIL ALL AREAS ARE PERMANENTLY STABILIZED, VEGETATED, AND PAVED, OR AS LONG AS THERE IS AIRBORNE DUST. |



| DESCRIPTION | DATE | BY |
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SEDIMENT AND EROSION CONTROL SPECIFICATIONS AND DETAILS

THE LANDON OF CROMWELL

150 COUNTRY SQUIRE DRIVE  
CROMWELL, CONNECTICUT

|                 |              |               |
|-----------------|--------------|---------------|
| RYE<br>DESIGNED | RYE<br>DRAWN | TD<br>CHECKED |
| 1"=20'          |              |               |
| SCALE           |              |               |
| JULY 18, 2023   |              |               |
| DATE            |              |               |
| 2398-07         |              |               |
| PROJECT NO.     |              |               |
| 2 OF 3          |              |               |
| SHEET NO.       |              |               |
| SP-2            |              |               |
| SHEET NAME      |              |               |



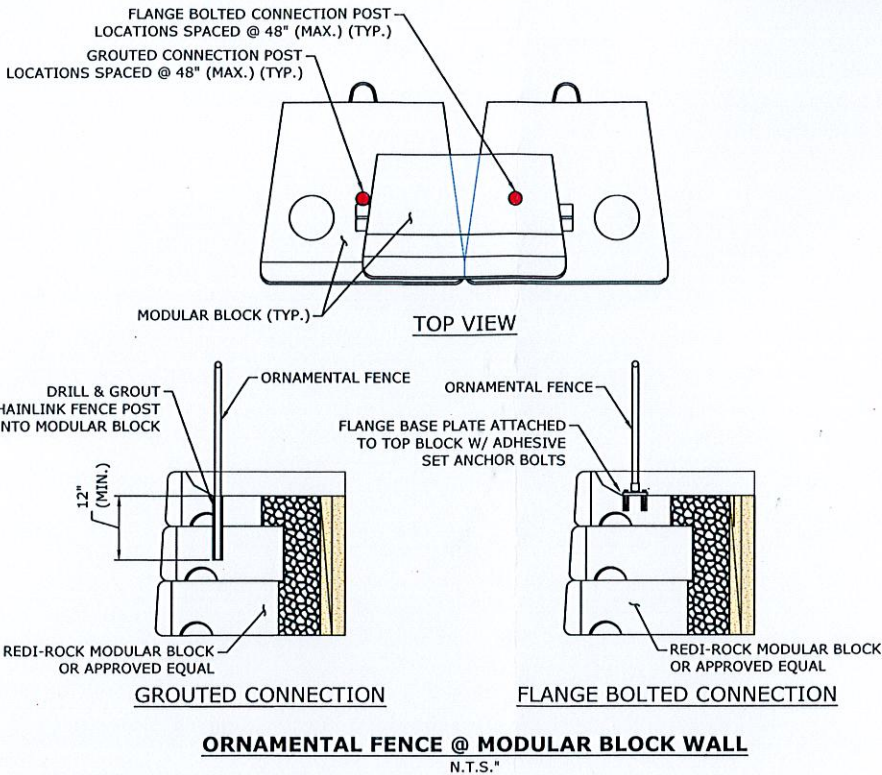
MODULAR BLOCK RETAINING WALL NOTES

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE EXTERNAL STABILITY OF THE WALL, INCLUDING BEARING CAPACITY AND SLOPE STABILITY, IS PROPERLY REVIEWED AND EVALUATED BY A LICENSED PROFESSIONAL ENGINEER. THE WALL DESIGN SHOWN IN THESE DETAILS DOES NOT ADDRESS THE SUFFICIENCY OF BEARING CAPACITY NOR THE SLOPE STABILITY OF THE WALL SYSTEM AND SURROUNDING SOIL.

THE FOLLOWING IS A LIST OF ACCEPTABLE EMBANKMENT RETAINING WALLS OR APPROVED EQUAL.

- A) REDI-ROCK Walls of New England  
Carroll Concrete Co.  
8 Reeds Mill Road  
P.O. BOX 1000  
Newport, NH 03773-1000  
(617) 620-1667
- B) MESA Retaining Wall System  
TENSAR Earth Technology, Inc.  
18 Main Street  
Suite 3C  
Concord, MA 01742  
(978) 371-2888
- C) United Concrete Products, Inc.  
173 Church Street  
Yalesville, CT 06492  
(203) 269-3119
- D) LHV Precast Incorporated  
540 Ulster Landing Road  
Kingston, NY 12401  
(845) 336-8880

2. LEVELING PAD SHALL CONSIST OF WELL GRADED ROAD BASE AGGREGATE, 3/4" CRUSHED, ANGULAR GRAVEL WITH SOME FINES. CONTRACTOR MAY OPT FOR A LEAN CONCRETE LEVELING PAD. PAD SHALL BE UNREINFORCED LEAN CONCRETE, 200-300 PSI, 3" THICK MAXIMUM. DRAINAGE AGGREGATE SHALL CONSIST OF CLEAN ANGULAR GRAVEL, 3/4" DIAMETER WITH LESS THAN 5% FINES.
3. DRAINAGE PIPE SHALL BE PERFORATED OR SLOTTED PVC OR CORRUGATED HDPE PIPE. REINFORCED BACKFILL SHALL BE FREE OF DEBRIS, ORGANIC SOIL, AND EXPANSIVE SOILS. FOR UNITS TO BE EMBEDDED, COMPACT FILL IN FRONT OF UNITS AT THE SAME TIME FILL BEHIND UNITS IS COMPACTED.
4. COMPACTION SHALL BE 95% OF MAXIMUM STANDARD PROCTOR DENSITY (ASTM D-698). COMPACTION TESTS SHALL BE TAKEN AS THE WALL IS INSTALLED. THE MINIMUM NUMBER OF TESTS SHALL BE DETERMINED BY THE CONTRACTOR'S DESIGN ENGINEER.
5. COMPACTION WITHIN 3 FT OF WALL SHALL BE LIMITED TO HAND OPERATED EQUIPMENT. CONTRACTOR SHALL SLOPE SITE GRADES TO DIRECT SURFACE RUNOFF AWAY FROM WALL AT END OF EACH DAY TO AVOID WATER DAMAGING THE WALL WHILE UNDER CONSTRUCTION. ANY SURFACE DRAINAGE FEATURES, FINISHED GRADING, PAVEMENT, OR TURF SHALL BE INSTALLED IMMEDIATELY AFTER WALL IS COMPLETED.
6. SEE GEOTECHNICAL REPORT DATED AUGUST 6, 2018 AND JUNE 13, 2019.

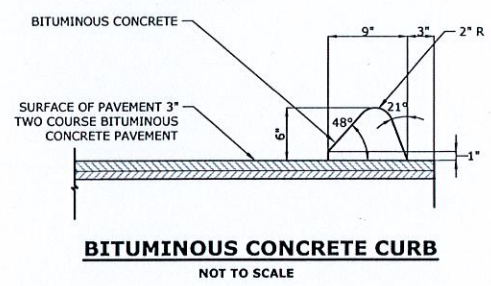
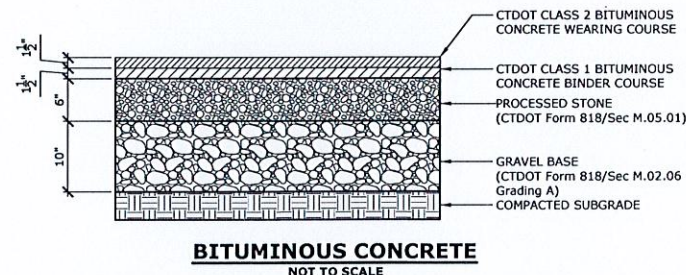
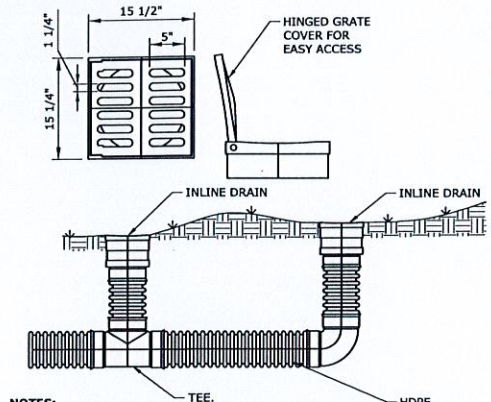
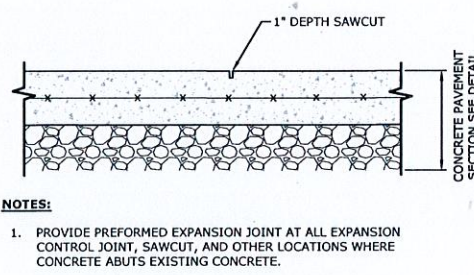
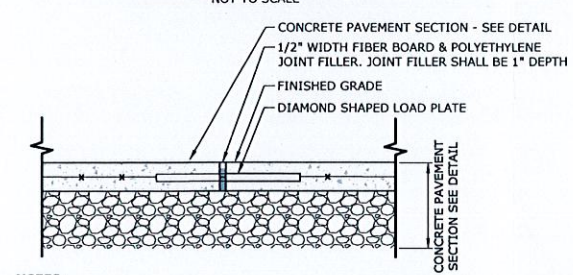
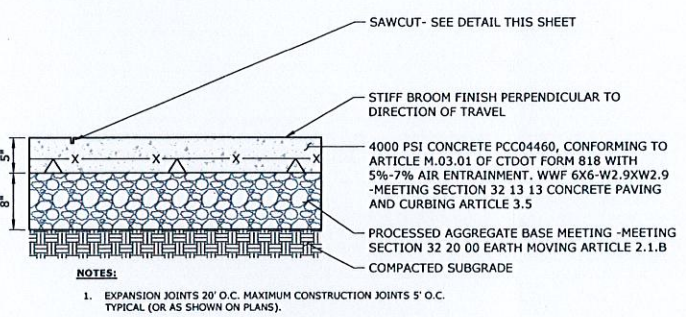
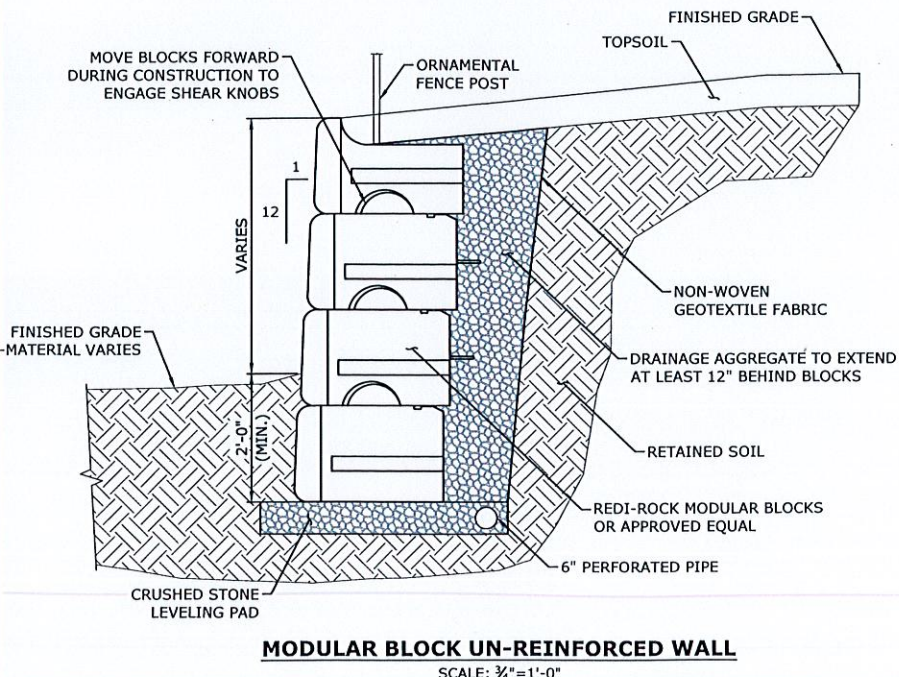
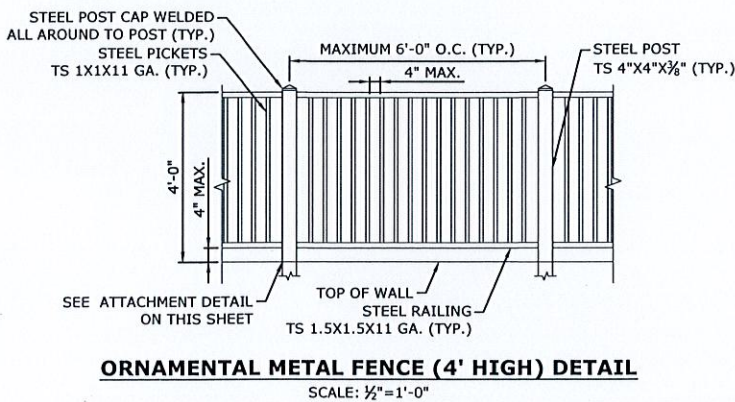


**NOTE:**

1. MODULAR BLOCK WALLS SHALL BE DESIGNED IN ACCORDANCE WITH NCMA.

2. THE LEVELING PAD SHOULD BE FOUNDED ON UNDISTURBED GLACIAL TILL PER GEOTECHNICAL REPORT.

3. SEE APPROVED PLANS DATED MAY 31, 2018 SHEETS SD-1 THROUGH SD-5 FOR ADDITIONAL DETAILS.



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SITE DETAILS

THE LANDON OF CROMWELL

150 COUNTRY SQUIRE DRIVE  
CROMWELL, CONNECTICUT

| RYE      | RYE   | TD      |
|----------|-------|---------|
| DESIGNED | DRAWN | CHECKED |
|          |       |         |
|          |       |         |
|          |       |         |
|          |       |         |
|          |       |         |
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|          |       |         |
|          |       |         |
|          |       |         |

1"=20'

JULY 18, 2023

DATE

2398-07

PROJECT NO.

3 OF 3

SHEET NO.

SP-3

SHEET NAME



# **Wetland Delineation**

**Country Squire Drive  
Cromwell, Connecticut  
May 30, 2018**

**Prepared for:**  
Cromwell Village Associates, LLC  
2319 Whitney Avenue  
Hamden, Connecticut 06518

MMI #2398-07-08

**Prepared by:**  
MILONE & MACBROOM, INC.  
99 Realty Drive  
Cheshire, Connecticut 06410  
(203) 271-1773  
[www.mminc.com](http://www.mminc.com)



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## 1.0 INTRODUCTION

As requested, Megan B. Raymond, a professional wetland scientist and registered soil scientist with Milone & MacBroom, Inc. (MMI), conducted a site inspection of the subject property as depicted on the attached site plan. The purpose of the site visit was to determine the presence or absence of wetlands and/or watercourses, to demarcate (flag) the boundaries of wetlands and watercourses identified, and to identify on-site soil types. MMI also conducted a seasonal vernal pool study. This report includes the methods and results of the investigation, which was completed during spring 2018. In summary, no inland wetlands or watercourses exist on the subject parcel. However, an isolated forested depressional wetland exists off site to the northwest. This inland wetland was originally delineated by REMA Ecological Services in December 2015 and consists of an elliptically shaped shallow seasonally ponded feature that does not support wetland obligate amphibians or fairy shrimp.

### 1.1 Regulatory Definitions

The Inland Wetlands and Watercourses Act (Connecticut General Statutes §22a-38) defines inland wetlands as "land, including submerged land...which consists of any soil types designated as poorly drained, very poorly drained, alluvial, and floodplain." Watercourses are defined in the act as "rivers, streams, brooks, waterways, lakes, ponds, marshes, swamps, bogs and all other bodies of water, natural or artificial, vernal or intermittent, public or private, which are contained within, flow through or border upon the state or any portion thereof." The act defines intermittent watercourses as having 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.

The Tidal Wetlands Act (Connecticut General Statutes §22a-28) defines wetlands as those areas which border on or lie beneath tidal waters such as, but not limited to, banks, bogs, salt marsh, swamps, meadows, flats, or other low lands subject to tidal action, including those areas now or formerly connected to tidal waters, whose surface is at or below an elevation of 1 foot above local extreme high water and upon which may grow or be capable of growing hydrophytic vegetation as identified in the statutes.

Upland review area determinations were based on the presence or absence of off-site wetlands and watercourses within 100 feet of the property. According to the Cromwell Inland Wetlands and Watercourse Regulations, upland review area means: "1) land within one hundred feet of the boundary of any wetland; 2) land within one hundred feet of the centerline of any unnamed watercourse; 3) land



within two hundred feet of the centerline of any named watercourse including Chestnut Brook, Willow Brook, Wilcox Brook/Cromwell Creek, North Brook, Coles Brook and the Mattabasset River; 4) land within two hundred feet of the ordinary high water mark of the Connecticut River; 5) land within two hundred feet of any vernal pool; 6) land within two hundred feet of any wetlands or watercourse in the area located east of the railroad track, south of Nooks Hill Road and north of Wall Street ("Dead Man's Swamp"); 7) land within two hundred feet of any wetlands or watercourse in the area located west of Route 9, south of West Street and east of Shunpike Road ("Round Meadows"); or 8) any other area of town with a significant likelihood to cause damage to wetland and regulated area." Given the landscape position of this particular site, the upland review area consists of the land area within 100 feet of the off-site wetland.

## 1.2 Methodology

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. The classification system of the National Cooperative Soil Survey was used in this investigation. Soil map units identified at the project site generally correspond to those included in the *Soil Survey of the State of Connecticut* (USDA 2005).

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). Soil types were identified by observation of soil morphology (soil texture, color, structure, etc.). To observe the morphology of the property's soils, test pits and/or borings (maximum depth of 2 feet) were completed at the site.

Tidal wetland determinations were completed based on the presence of a predominance of tidal wetland vegetation and physical markings or water-laid deposits resulting from tidal action.

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.

On the day of the review, the sky was clear, and air temperatures were in the 60s Fahrenheit. The upland soil was dry, and the off-site wetland soil was moist to inundated.

The wetland and watercourse delineation determined that no inland wetlands or watercourses exist on the subject parcel. One isolated wetland depression exists off site to the northwest, and this system was delineated by REMA Ecological Services in December 2015. MMI concurs with the wetland boundary established by REMA and did not place any additional wetland flags. Additionally, MMI evaluated the areas within 100 feet of the existing edge of asphalt along the northern extent of Country Squire Drive, just west of the existing commercial and parochial buildings. No regulated wetland or watercourse resources were identified in this area. A ditch collects road runoff along the majority of Country Squire Drive though this feature does not meet the definition as an intermittent stream and is thus not afforded protection under CGS 22a-38.





## 2.0 SITE DESCRIPTION AND EXISTING SOILS

The approximately 8.75-acre rectangular-shaped site is located at the northern terminus of Country Squire Drive in southern Cromwell. Country Squire Drive extends west and north from Route 372 and is characterized by densely settled multifamily residential land use. Cedar Drive is located west of the property while Fox Meadow Condominiums abuts the site to the east. A town-owned open space area exists north of the parcel. The open space area is undeveloped and forested in contrast to the previously developed condition of the subject parcel.

The site was formerly utilized as a Nike missile site operated by the U.S. Army and active from 1956 to 1968. A number of cement-block buildings and associated asphalt walkways, parking areas, and roadways reflect this previous use. Vegetation on the property is primarily comprised of stands and snarls of non-native vegetation such as multiflora rose, tartarian honeysuckle, Japanese honeysuckle, autumn olive, and Asiatic bittersweet amidst the derelict military structures. The site is enclosed by a perimeter chain link fence.

The site occupies the top of a drumloidal feature. Topography slopes gently to the west though the gradient increases toward the western property boundary. The property lies within the Mattabasset River watershed, which drains to the Connecticut River approximately 3 miles southeast of the subject parcel. Soil parent materials are derived from lodgement till and urban fill material. The soil survey mapping is appended. The survey identifies two upland soil units (Wethersfield Urban land complex and Udorthents) on the property.

No wetlands or watercourses exist on the subject parcel. However, a forested depressional wetland exists off site to the northwest. This wetland was demarcated by REMA Ecological Services in December 2015. MMI evaluated the wetland boundary and concurs with the depiction of the inland wetland resource. The wetland boundary is depicted on site plans prepared by MMI entitled *Proposed Multi-Family Residential Development*, dated May 30, 2018. Vegetation within the wetland is comprised of a forest canopy dominated by red maple, white oak, scarlet oak, and black birch. A thin shrub layer exists comprised of highbush blueberry, spice bush, swamp azalea, and Northern arrowwood. A sparse groundcover exists and is comprised of patches of cinnamon fern. An upland forest exists around the wetland depression, comprised of 12" to 24" diameter at breast height (dbh) trees dominated by hickory and oak, with a shrub layer dominated by non-native species and saplings from the canopy. Upland groundcover is also limited and comprised of patches of hay-scented fern, Canada mayflower, and Christmas fern.

The hydrology of the wetland displays shallow seasonal ponding. Due to the morphology of this wetland, this system was identified as potential vernal pool habitat, and seasonal vernal pool study was completed in spring 2018. In summary, the wetland does not meet the definition of a vernal pool per the *Inland Wetlands and Watercourses Regulations of the Town of Cromwell, Connecticut*. A description of the vernal pool assessment is provided in Section 3.0.

TABLE 2-1  
Soil Unit Properties

| <u>Map Unit</u>    |                                 | <u>Parent Material</u>             | <u>Slope (%)</u> | <u>Drainage Class</u>                   | <u>High Water Table</u> |             |               | <u>Depth To Bedrock (inch)</u> |
|--------------------|---------------------------------|------------------------------------|------------------|---|-------------------------|-------------|---------------|--------------------------------|
| <u>Sym.</u>        | <u>Name</u>                     |                                    |                  |   | <u>Depth (feet)</u>     | <u>Kind</u> | <u>Months</u> |                                |
| <u>Upland Soil</u> |                                 |                                    |                  |   |                         |             |               |                                |
| 287                | Wethersfield-Urban land complex | Glacial (lodgement) till           | 8-15             | Well Drained                            | 1.5>2.5                 | Perched     | Nov-May       | >60                            |
| 306                | Udorthents                      | Excavated or Filled Soil (>2 feet) | 0-45             | Well Drained to Somewhat Poorly Drained | 1.5>6.0                 |             | Nov-May       | >60                            |

















## 3.0 WETLAND FUNCTIONS AND VALUES

A functional evaluation of the off-site wetland based on MMI field observations is summarized in Table 3-1. The first column lists the functions generally ascribed to wetlands; the second column summarizes the rationale used to determine whether these functions are being performed within the subject wetland and/or watercourse.

**TABLE 3-1**  
**Functions and Values Assessment – Off-Site Depression**

|   | Functions and Values                                | Comments   |
|---|---|--|
|    | Groundwater Recharge/Discharge                      | Yes – This perched wetland is supported by groundwater discharge.  |
|    | Flood Flow Alteration (Storage & Desynchronization) | No – The depressional wetland is groundwater fed and occupies a small area northwest of the subject parcel.  |
|    | Fish & Shellfish Habitat                            | No – The hydrology of the wetland does not support finfish or shellfish habitat.   |
|    | Sediment/Toxicant Retention                         | Yes – The perched landscape position of this wetland allows contribution to this function.   |
|  | Nutrient Removal/Retention/Transformation           | Yes – The wetland does provide for nutrient retention and transformation though this function is limited due to the small size of the wetland.               |
|  | Production Export (Nutrient)                        | No – The wetland is small in size, and the contribution to production export is limited by the small size and sparsely vegetated wetland.                    |
|  | Sediment/Shoreline/Watercourse Bank Stabilization   | No – The perched landscape position of this wetland does not contribute to this function.  |
|  | Wildlife Habitat                                    | Yes – The small wetland displays a forested canopy with seasonal ponding and demonstrates potential habitat for songbirds, small mammals, and invertebrates. |
|  | Recreation (Consumptive & Non-Consumptive)          | No – This wetland does not provide recreational opportunities.   |
|  | Educational Scientific Value                        | No – This wetland does not provide educational value.  |
|  | Uniqueness/Heritage                                 | No – This area does not present unique attributes.   |
|  | Visual Quality/Aesthetics                           | No – This small wetland area does not contain inherent visual quality or aesthetic value.  |
| ES  | Endangered Species                                  | No – This area is not mapped as Natural Diversity Data Base area as outlined by the Connecticut Department of Energy & Environmental Protection (CTDEEP).    |



The principal functions and values of the wetland system at this location include the following:

- Groundwater Recharge/Discharge
- Sediment/Toxicant Retention
- Nutrient Removal/Retention/Transformation
- Wildlife Habitat

### 3.1 Vernal Pool Assessment

Due to the hydrologic and morphological conditions within the off-site wetland, this area was investigated for its potential to provide seasonal breeding habitat to wetland obligate amphibians in order to ascertain whether the system functions as a vernal pool. Per Section 2.1 (II) of the Town of Cromwell Inland Wetlands and Watercourses Regulations, a vernal pool *means a watercourse consisting of a confined basin depression which contains a small body of standing water, usually drying out for part of the year during warm weather. It can be natural or man-made, and usually lacks a permanent outlet or any fish population. Further, the occurrence of one or more of the obligatory species which include the fairy shrimp, spotted salamander, Jefferson salamander, marbled salamander, wood frog and eastern spadefoot toad are necessary to conclusively define the vernal pool.*

The wetland was investigated on April 13 and April 20, 2018, for the presence of amphibian egg masses or other indicators, with a follow-up visit on May 22, 2018. The wetland was inspected by traversing through wetland directly on foot and noting potential attachment sites for egg mass deposition on woody debris within the wetland. The water column was directly sampled with a 10-inch kick net for tadpoles and facultative wetland invertebrates such as crustaceans, insects, and/or molluscs.

Physical and biological characteristics of the wetland were noted at each site visit. The water column, though persistent, was quite shallow and ranged from 0 to 10 inches in height. Algae was observed within the water column in each site visit. Direct sampling of the water column revealed numerous fingernail clams and mosquito larvae but no vernal pool indicators such as fairy shrimp and/or obligate amphibian egg masses or tadpoles. Due to the lack of wetland obligate amphibians and/or fairy shrimp within the wetland, the off-site wetland does not provide vernal pool habitat.





## FIGURES

FIGURE 1

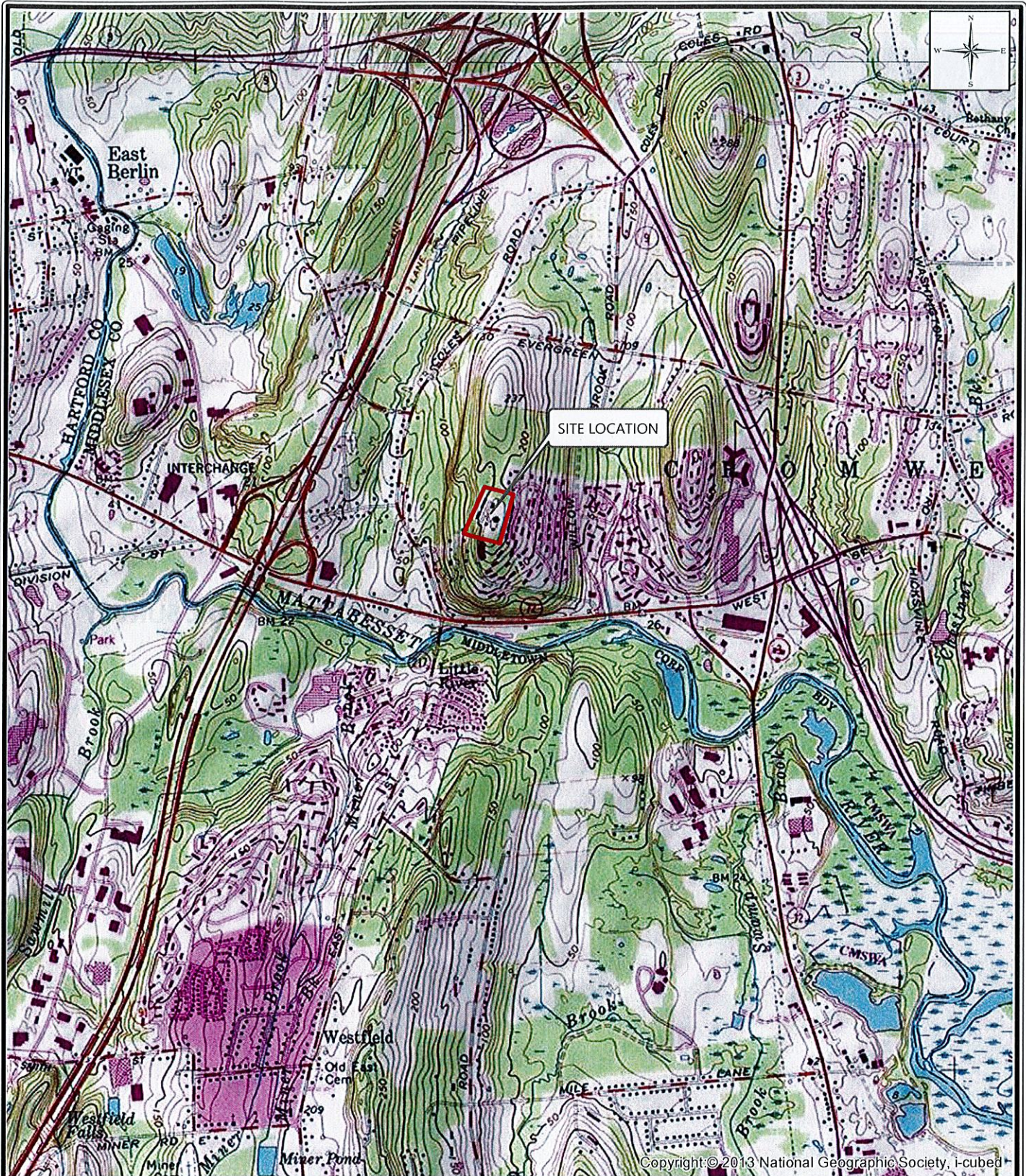
SITE LOCATION MAP



FIGURES

**FIGURE 1**  
**SITE LOCATION MAP**





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## SITE LOCATION

CROMWELL PROPOSED MULTI-FAMILY RESIDENT

150 COUNTRY SQUIRE DRIVE  
CROMWELL, CONNECTICUT

SOURCE: 2013, NATIONAL GEOGRAPHIC SOCIETY

DATE: 21 MAY 2018

SCALE: 1"=2000'

PROJ. NO.: 2398-07

|          |       |         |
|----------|-------|---------|
| DESIGNED | DRAWN | CHECKED |
| KFK      | KFK   | MBR     |

DRAWING NAME:

**FIG. 1**