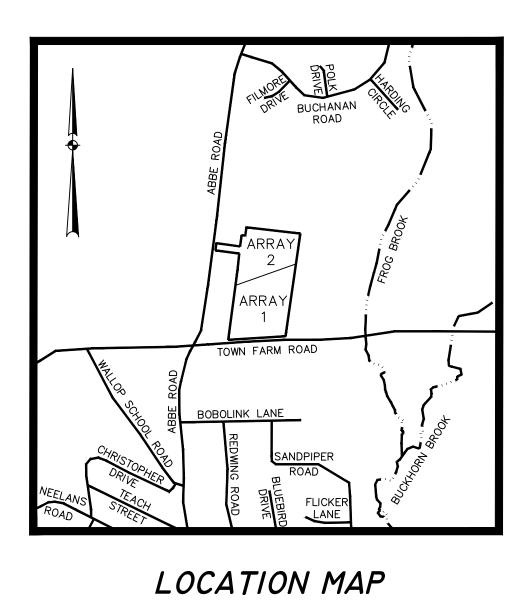
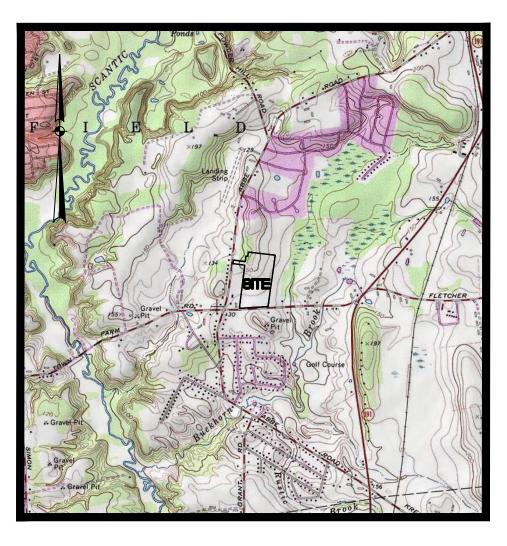
TOWN FARM SOLAR

141 Town Farm Road & Abbe Road Enfield, CT 06082

Map 086 Lots 164, 321, & 326 Zone: R-44



1"=1,000'



USGS MAP

1"=2,000'

<u>Applicants</u>

LSE Scutum LLC (Array 1)
& LSE Bootes LLC (Array 2)
18 North Main Street, 2nd Floor
West Hartford, CT 06107
Contact: Sam Valone
(508) 308-8013

Owners

M&K Hill, LLC 212 Abbe Road Enfield, CT 06082 Katherine Raffia & Darrell Crowley 207 Abbe Road Enfield, CT 06082

Prepared By

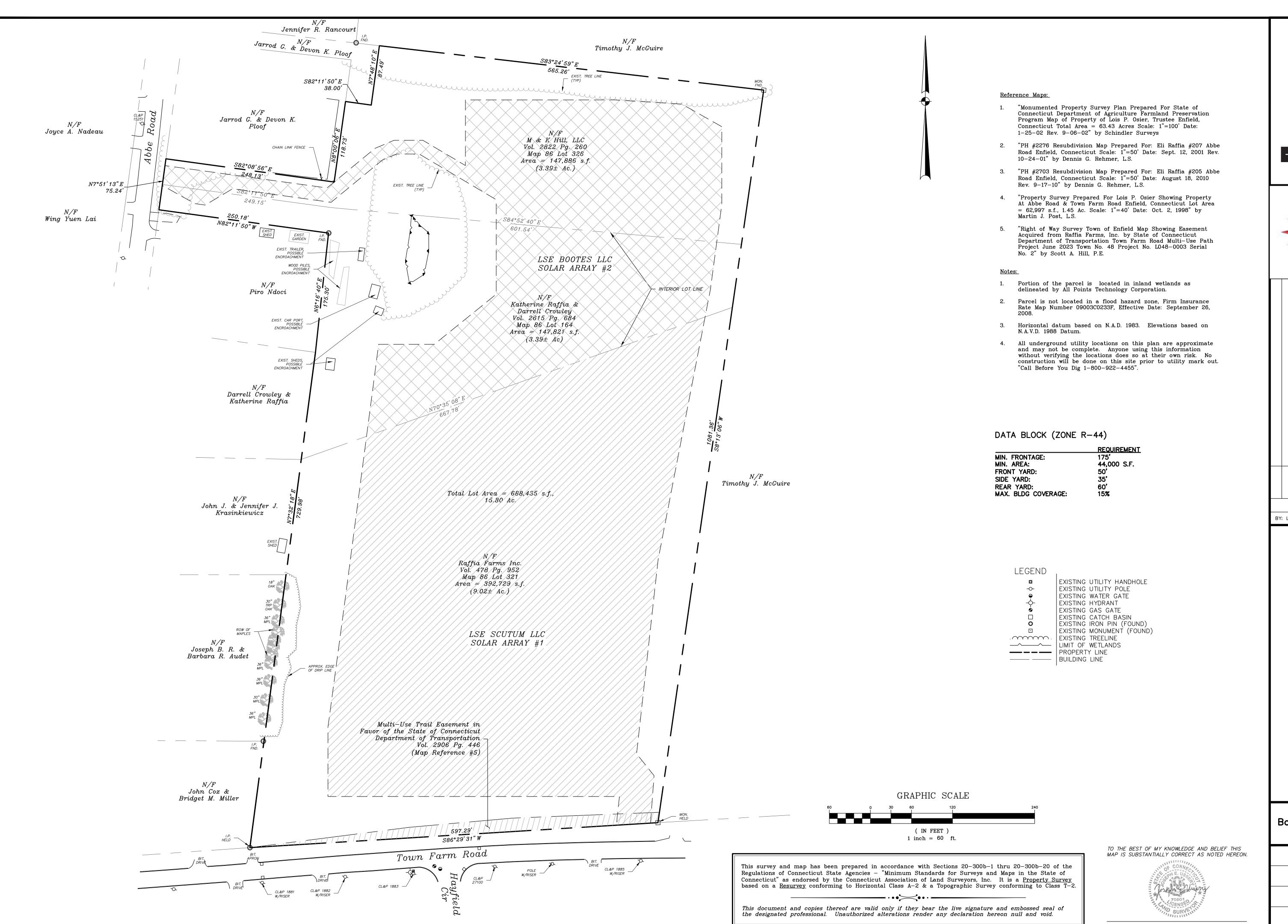
Raffia Farms, Inc. 113 Raffia Road Enfield, CT 06082

RUSSO
SURVEYORS · ENGINEERS
SERVING CT & MA

J.R. Russo & Associates, LLC
P.O. Box 938, 1 Shoham Rd East Windsor, CT 06088
www.jrrusso.com · CT 860.623.0569 · MA 413.785.1158

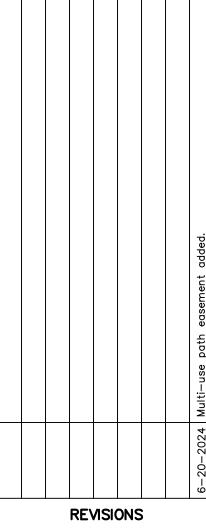
DRAWING	INDEX

SHEET TITLE	SHEET NO.	LATEST REVISION
CIVIL COVER SHEET BOUNDARY SURVEY OVERALL AERIAL PLAN ARRAY SITE PLAN EROSION CONTROL NOTES & DETAILS ENVIRONMENTAL NOTES	· ·2 of 6 · ·3 of 6 · ·4 of 6 · ·5 of 6 · ·6 of 6	3-06-2025 6-20-2024 3-06-2025 3-06-2025 6-20-2024 6-20-2024 1-30-2024
LANDSCAPE PLAN:		6-20-2024 6-20-2024









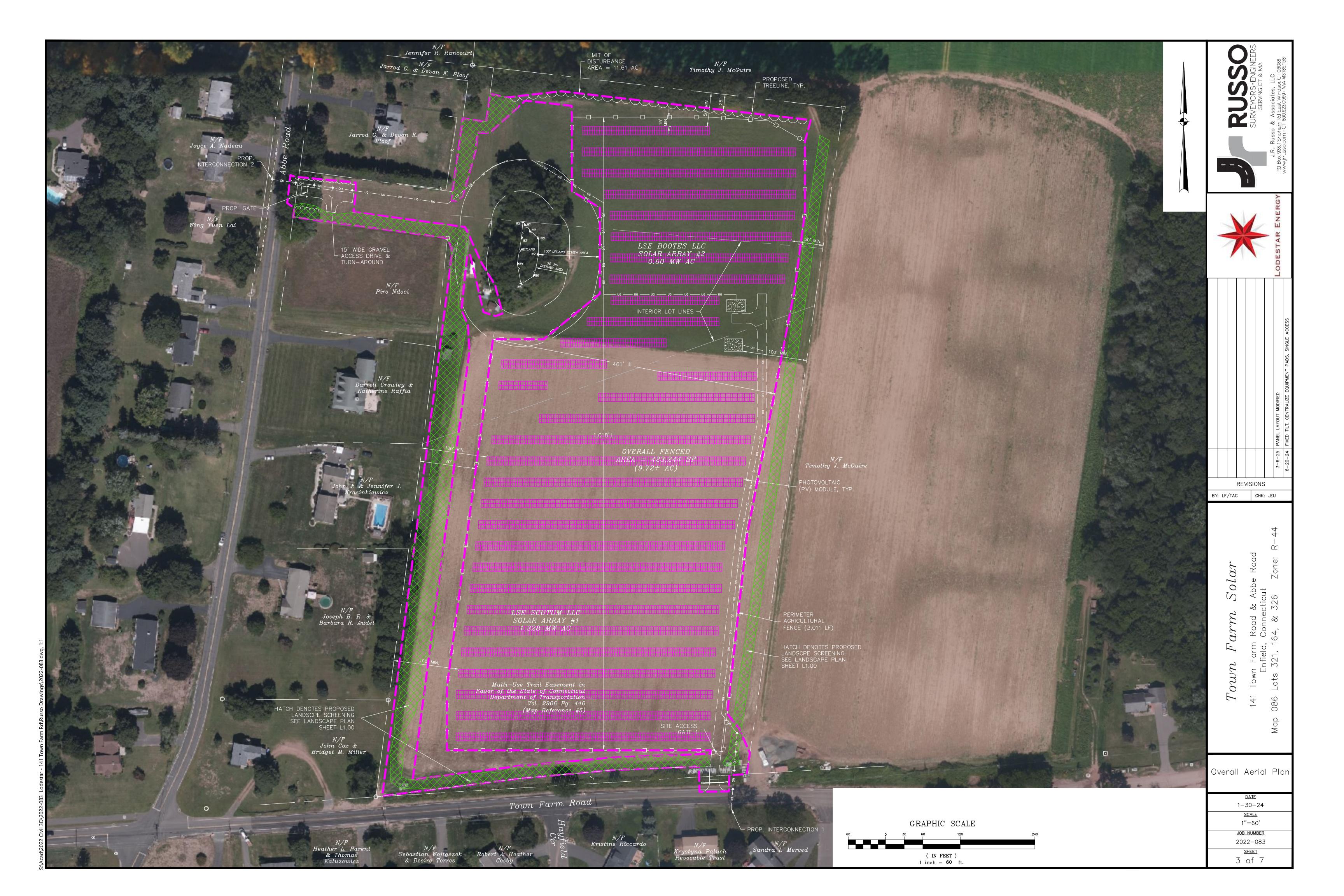
BY: LF/TAC | CHK: JEU

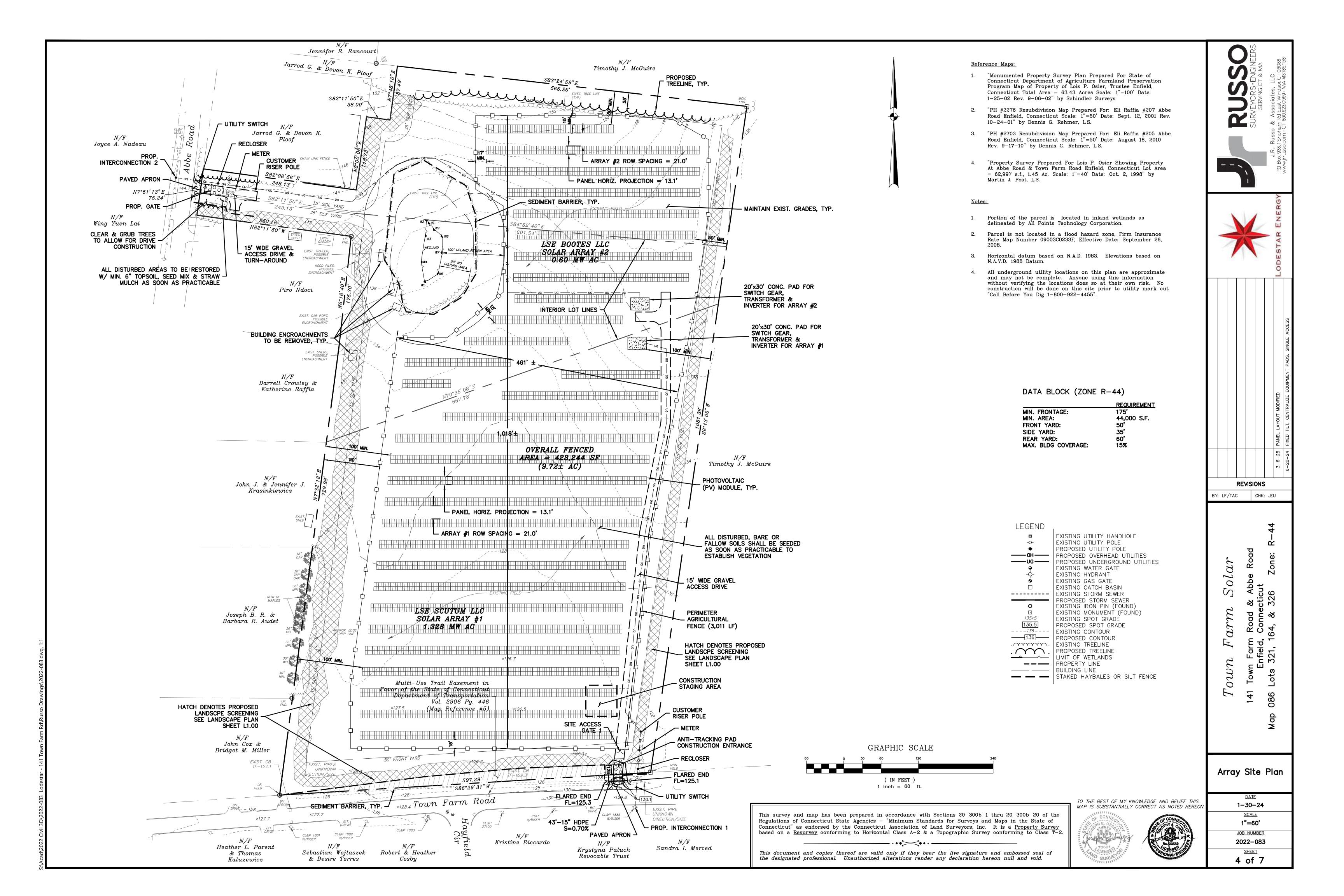
Road Solar

own

Boundary Survey

<u>DATE</u> 1-30-24 <u>SCALE</u> 1"=60' JOB NUMBER 2022-083 <u>SHEET</u> 2 of 7





Seeding dates in Connecticut are normally April 1 through June 15 and August 15 through October 1. Spring seedings give the best results and spring seedings of all mixes with legumes is recommended. There are two exceptions to the above dates. The first exception is when seedings will be made in the areas of Connecticut known as the Coastal Slope and the Connecticut River Valley. The Coastal Slope includes the coastal towns of New London, Middlesex, New Haven, and Fairfield counties. In these areas, with the exception of crown vetch (when crown vetch is seeded in late summer, at least 35% of the seed should be hard seed (unscarified), the final fall seeding dates can be extended and additional 15 days. The second exception is frost crack or dormant seeding, the seed is applied during the time of year when no germination can be expected, normally November through February. Germination will take place when weather conditions improve, mulching is extremely important to protect the seed from wind and surface erosion and to provide erosion protection until the seeding becomes established.

Grade in accordance with the Land Grading measure which is in the Connecticut Guidelines For Soil Erosion and Sediment Control latest edition.

Install all necessary surface water controls.

For areas to be mowed remove all surface stones 2 inches or larger. Remove all other debris such as wire, cable tree roots, pieces of concrete, clods, lumps, or other unsuitable material.

Basins & Disturbed Areas outside of fenced array: New England Erosion Control/Restoration Mix by New England Wetland Plants Inc. or Approved Equal. <u>Disturbed Areas within fenced area:</u> Northeast Solar Pollinator Buffer Mix - ERNMX-610 by Ernst Conservation Seeds or approved equal.

Apply topsoil, if necessary, in accordance with the Topsoiling measure which is in the Connecticut Guidelines For Soil Erosion and Sediment Control latest edition.

Apply ground limestone and fertilizer according to soil test recommendations (such as those offered by the University of Connecticut Soil Testing Laboratory or other reliable source).

Where soil testing is not feasible on small or variable sites, or where timing is critical, fertilizer may be applied at the rate of 300 pounds per acre or 7.5 pounds per 1,000 square feet of 10-10-10 or equivalent and limestone at 4 tons per acre or 200 pounds per 1,000 square feet.

Work lime and fertilizer into the soil to a depth of 3 to 4 inches with a disc or other suitable equipment.

Inspect seedbed just before seeding. If the soil is compacted, crusted or hardened, scarify the area prior to seeding.

Apply selected seed at rates per manufacturer's recommendations uniformly by hand, cyclone seeder, drill, cultipacker type seeder or hydroseeder (slurry including seed, fertilizer). Normal seeding depth is from 0.25 to 0.5 inch. Increase seeding rates by 10% when hydroseeding or frost crack seeding. Seed warm season grasses during the spring period

See guidelines in the Mulch For Seed measures.

Inspect temporary soil protection area at least once a week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inch or greater during the first growing season.

Where seed has been moved or where soil erosion has occurred, determine Tre Mare Richer Yail SE End Inchair (15 3) eded.

SPECIFICATIONS

Site Preparation

Install needed erosion control measures such as diversions, grade stabilization structures, sedimentation basins and grassed waterways in accordance with the approved plan.

Grade according to plans and allow for the use of appropriate equipment for seedbed preparation, seeding, mulch application and mulch anchoring.

Seedbed Preparation

Loosen the soil to a depth of 3-4 inches with a slightly roughened surface. If the area has been recently loosened or disturbed, no further roughening is required. Soil preparation can be accomplished by tracking with a bulldozer, discing harrowing, raking or dragging with a section of chain link fence.

Apply ground limestone and fertilizer according to soil test recommendations (such as those offered by the University of Connecticut Soil Testing Laboratory or other reliable source).

If soil testing is not feasible on small or variable sites, or where timing is critical, fertilizer may be applied at the rate of 300 pounds per acre or 7.5 pounds per 1,000 square feet of

Apply seed uniformly by hand, cyclone seeder, drill, cultipacker type seeder or hydroseeder. The temporary seed shall be Rye (grain) applied at a rate of 120 pounds per acre. Increase seeding rates by 10% when hydroseeding.

See guidelines in the Mulch For Seed measures.

10-10-10 or equivalent.

Inspect temporary seeding area at least once a week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inch or greater for seed and mulch movement and rill erosion.

Where seed has been moved or where soil erosion has occurred. determine the cause of the failure and repair as needed.

MULCH FOR SEED (MS)

SPECIFICATIONS

Types of Mulches within this specification include, but are not

1. Hay: The dried stems and leafy parts of plants cut and harvested, such as alfalfa, clovers, other forage legumes and the finer stemmed, leafy grasses. The average stem length should not be less than 4 inches. Hay that can be windblown should be anchored to hold it in place.

2. Straw: Cut and dried stems of herbaceous plants, such as wheat, barley, cereal rye, or brome. The average stem length should not be less than 4 inches. Straw that can be windblown should be anchored to hold it in place.

3. Cellulose Fiber: Fiber origin is either virgin wood, post-industrial/pre-consumer wood or post consumer wood complying with materials specification (collectively referred to as "wood fiber"), newspaper, kraft paper, cardboard (collectively referred to as "paper fiber") or a combination of wood and paper fiber. Paper fiber, in particular, shall not contain boron, which inhibits seed germination. The cellulose fiber must be manufactured in such a manner that after the addition to and agitation in slurry tanks with water, the fibers in the slurry become uniformly suspended to form a homogeneous product. Subsequent to hydraulic spraying on the ground, the mulch shall allow for the absorption and percolation of moisture and shall not form a tough crust such that it interferes with seed germination or growth. Generally applied with tackifier and fertilizer. Refer to manufacturer's specifications for application rates needed to attain 80%-95% coverage without interfering with seed germination or plant growth. Not recommended as a mulch for use when seeding occurs outside of the recommended

Tackifiers within this specification include, but are not limited to: Water soluble materials that cause mulch particles to adhere to one another, generally consisting of either a natural vegetable gum blended with gelling and hardening agents or a blend of hydrophilic polymers, resins, viscosifiers, sticking aids and gums. Good for areas intended to be moved. Cellulose fiber mulch may be applied as a tackifier to other mulches, provided the application is sufficient to cause the other mulches to adhere to one another. Emulsified asphalts are specifically prohibited for use as tackifiers due to their potential for causing water pollution following its

Nettings within this specification include, but are not limited to: Prefabricated openwork fabrics made of cellulose cords, ropes, threads, or biodegradable synthetic material that is woven, knotted or molded in such a manner that it holds mulch in place until vegetation growth is sufficient to stabilize the soil. Generally used in areas where no mowing is planned.

seeding dates.

Grade according to plans and allow for the use of appropriate equipment for seedbed preparation, seeding, mulch application and mulch anchoring.

Timing: Applied immediately following seeding. Some cellulose fiber may be applied with seed to assist in marking where seed has been sprayed, but expect to apply a second application of cellulose fiber to meet the requirements of Mulch For Seed in the Connecticut Guidelines For Soil Erosion and Sediment Control

Spreading: Mulch material shall be spread uniformly by hand or machine resulting in 80%-95% coverage of the disturbed soil when seeding within the recommended seeding dates. Applications that are uneven can result in excessive mulch smothering the germinating seeds. For hay or straw anticipate an application rate of 2 tons per acre. For cellulose fiber follow manufacture's recommended application rates to provided 80%-95% coverage.

When seeding outside the recommended seeding dates, increase mulch application rate to provide between 95%-100% coverage of the disturbed soil. For hay or straw anticipate an application rate to 2.5 to 3 tons per acre.

When spreading hay mulch by hand, divide the area to be mulched into approximately 1,000 square feet and place 1.5-2 bales of hay in each section to facilitate uniform distribution.

For cellulose fiber mulch, expect several spray passes to attain adequate coverage, to eliminate shadowing, and to avoid

Anchoring: Expect the need for mulch anchoring along the shoulders of actively traveled roads, hill tops and long open slopes not protected by wind breaks.

When using netting, the most critical aspect is to ensure that the netting maintains substantial contact with the underlying mulch and the mulch, in turn, maintains continuos contact with the soil surface. Without such contact, the material is useless and erosion can be expected to occur.

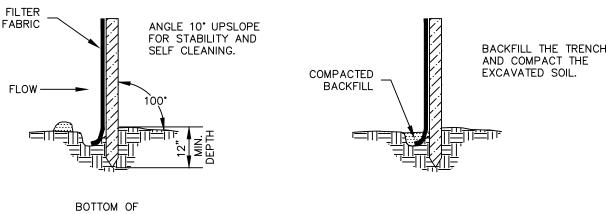
MAINTENANCE

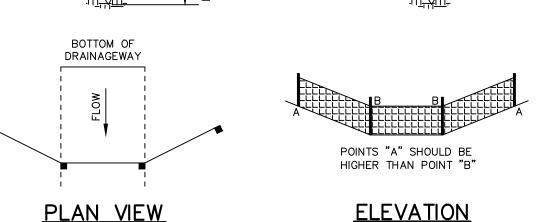
Inspect mulch for seed area at least once a week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inch or greater until the grass has germinated to determine maintenance needs.

Where mulch has been moved or where soil erosion has occurred, determine the cause of the failure and repair as

SOIL ERSOION & SEDIMENT CONTROL NOTES

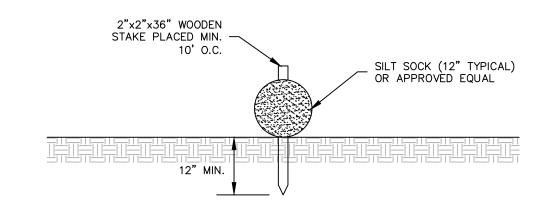
- 1. All soil erosion and sediment control work shall be done in strict accordance with the Connecticut Guidelines For Soil Erosion and Sediment Control latest edition.
- 2. Any additional erosion/sediment control deemed necessary by the engineer during construction, shall be installed by the developer. In addition, the developer shall be responsible for the repair/replacement and/or maintenance of all erosion control measures until all disturbed areas are stabilized to the satisfaction of the town staff.
- 3. All soil erosion and sediment control operations shall be in place prior to any grading operations and installation of proposed structures or utilities and shall be left in place until construction is completed and/or area is stabilized.
- 4. In all areas, removal of trees, bushes and other vegetation as well as disturbance of the soil is to be kept to an absolute minimum while allowing proper development of the site. During construction, expose as small an area of soil as possible for as short a time as possible.
- 5. The developer shall practice effective dust control per the soil conservation service handbook during construction and until all areas are stabilized or surface treated. The developer shall be responsible for the cleaning of nearby streets of any debris from these construction activities.
- All fill areas shall be compacted sufficiently for their intended purpose and as required to reduce slipping, erosion or excess saturation. Fill intended to support buildings, structures, conduits, etc., shall be compacted in accordance with local requirements or
- Topsoil is to be stripped and stockpiled in amounts necessary to complete finished grading of all exposed areas requiring topsoil. The stockpiled topsoil is to be located as designated on the plans. Topsoil shall not be placed while in a frozen or muddy condition. when the subgrade is excessively wet, or in a condition that may otherwise be detrimental to proper grading or proposed sodding or seeding.
- 8. Any and all fill material is to be free of brush, rubbish, timber, logs vegetative matter and stumps in amounts that will be detrimental to constructing stable fills. Maximum side slopes of exposed surfaces of earth to be 3:1 or as otherwise specified by local authorities.
- 9. Soil stabilization should be completed within 5 days of clearing or inactivity in construction.
- 10. Waste Materials All waste materials (including wastewater) shall be disposed of in accordance with local, state and federal law. Litter shall be picked up at the end of each work day.
- 11. The Contractor shall maintain on—site additional erosion control materials as a contingency in the event of a failure or when required to shore up existing BMPs. At a minimum, the on-site contingency materials should include 30 feet of silt fence and 5 straw haybales with 10 stakes.





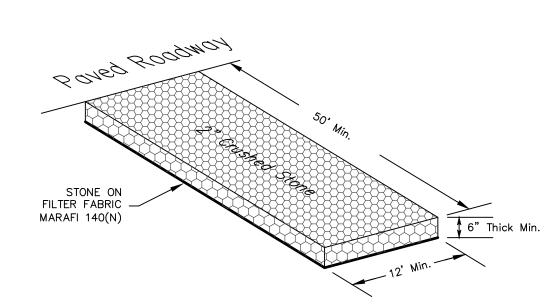
SOURCE: U.S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE, STORRS, CONNECTICUT

GEOTEXTILE SILT FENCE (GSF)



NOTE: MAY BE USED AS ALTERNATIVE TO GEOTEXTILE SILT FENCE.

SILT SOCK (ALTERNATE SEDIMENT BARRIER)



ANTI-TRACKING EXIT PAD DETAIL (CE)

CHECKLIST FOR EROSION CONTROL PLAN

PROJECT: Lodestar Energy

LOCATION: 141 Town Farm Road & Abbe Road, Enfield, CT

PROJECT DESCRIPTION: Construction of a solar array

PARCEL AREA: 15.80± acres

RESPONSIBLE PERSONNEL: Sam Valone, Lodestar Energy (508) 308-8013

EROSION AND SEDIMENT CONTROL PLAN PREPARER: J.R. Russo & Associates, LLC

Control Measures			Initials
Install construction entrance	As shown on plan.		
Install perimeter sediment barriers	As shown on plan.		

Location	Description or Number	Date	Initia

Project Dates:

Date of groundbreaking for project

Date of final stabilization

PROJECT NARRATIVE AND CONSTRUCTION SEQUENCE

This project is located at 141 Town Farm Road & Abbe Road in Enfield, Connecticut. The proposed activity is the construction of a solar array. The suggested schedule of construction is as follows:

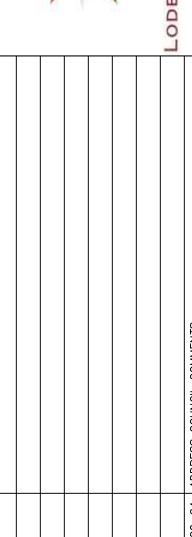
- 1. Conduct a pre-construction meeting on-site with the contractor to review the design and requirements of the Stormwater Pollution Control Plan.
- 2. Install perimeter silt fence/silt sock (GSF) downgradient of the construction activities as shown on the project plans.
- 3. Clear trees & grub stumps in the vicinity of Abbe Road entrance. Construct anti-trackina
- 4. Install culvert & anti-tracking pad at Town Farm Road entrance. 5. Strip topsoil in the vicinity of the proposed water quality swale and access drives. Stockpile
- suitable amount of topsoil for reuse on-site in areas shown. Stockpiles shall be surrounded by sediment barriers (GSF).
- 6. Construct and stabilize access drives and water quality swale. Seed & mulch to establish
- vegetation as soon as practicable. Install foundations and solar panels.
- Install electrical equipment and distribution lines. Install security fence.
- Restore all disturbed areas with topsoil, seed mix and mulch as soon as practicable. 11. Remove silt fence after site is fully stabilized.

Construction of this site is anticipated to begin in the fall of 2024 and be complete by summer 2025, pending approvals. Temporary erosion control measures shall be installed prior to any soil permanent vegetation.

The Contractor shall keep the area of disturbance to a minimum and establish vegetative cover on exposed soils as soon as practical. All soil and erosion control measures shall be installed and maintained in accordance with these plans and the "Connecticut DEP Guidelines for Soil Erosion and Sediment Control", as amended. The Contractor shall verify all conditions noted on the plans and shall immediately notify the Engineer of any discrepancies.

The developer shall be responsible for the repair/replacement/maintenance of all erosion control measures until all disturbed areas are stabilized. Accumulated sediment shall be removed as required to keep silt fence functional. In all cases, deposits shall be removed when the accumulated sediment has reached one—half above the ground height of the silt fence. This material is to be spread and stabilized in areas not subject to erosion, or to be used in areas which are not to be paved or built on. Silt fence (GSF) is to be replaced as necessary to maintain proper filtering action. Silt fence (GSF) are to remain in place and shall be maintained to insure efficient sediment capture until all areas above the erosion checks are stabilized and vegetation has been established.





REVISIONS BY: LF/TAC CHK: JEU

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Erosion Control Notes & Details

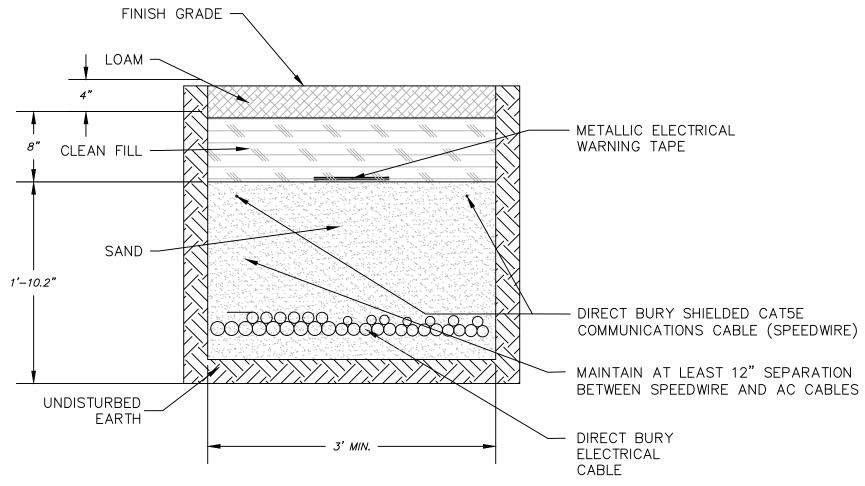
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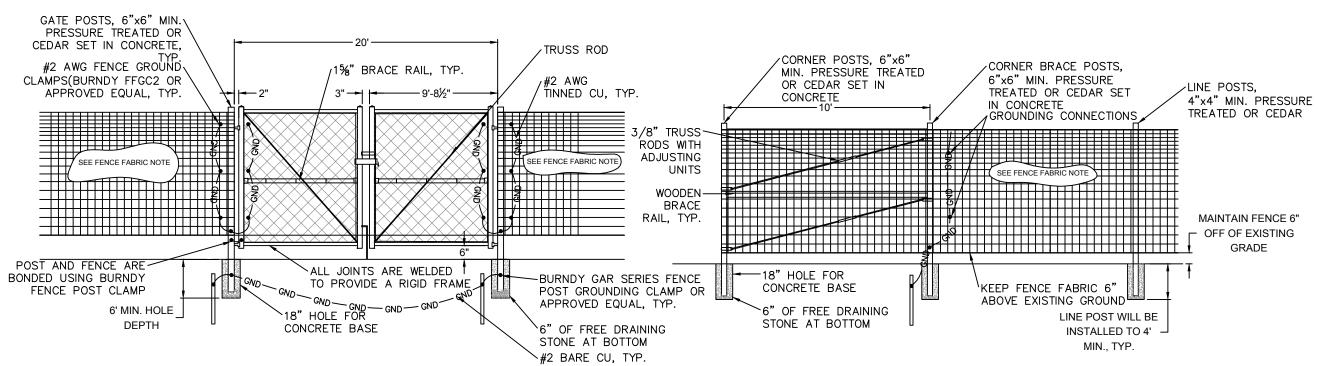
1-30-24 <u>SCALE</u> As Shown JOB NUMBER 2022-083

SHEET

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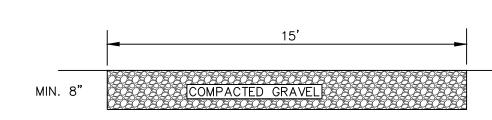
MEDIUM VOLTAGE CABLE TRENCH DETAIL (MV) NOT TO SCALE





- SOLIDLOCK PRO HIGH TENSILE FIXED KNOT GAME FENCE OR APPROVED EQUAL. FENCE FABRIC SHALL BE 96" HIGH, 6" SPACING OF VERTICAL WIRES.
- BOTTOM TO ALLOW FOR SMALL ANIMAL PASSAGE. 4. FABRIC TO BE A DARK COLOR, BLACK, OR GRAY.
- CORROSION RESISTANT STAPLES.

AGRICULTURAL FENCE DETAIL



NOTES:

1. SUBGRADE SHALL BE EVALUATED IN THE FIELD FOR STABILITY. WHERE SUBGRADE IS WET OR CANNOT BE PROOF ROLLED WITHOUT SIGNIFICANT RUTTING OR MOVEMENT, ADDITIONAL STABILIZATION MEASURES WILL BE REQUIRED AND MAY INCLUDE EXCAVATION & INSTALLATION OF ADDITIONAL STABILIZATION AND FOR THE PROPERTY. GRAVEL AND/OR INSTALLATION OF A GEOTEXTILE AS DIRECTED BY THE

GRAVEL DRIVEWAY DETAIL

- 1. FENCE POSTS/MESH WITHIN 50' OF MEDIUM VOLTAGE PATHWAY SHALL BE GROUNDED EVERY 100' UNTIL THE FENCE SYSTEM IS OVER 50' AWAY FROM MEDIUM VOLTAGE PATHWAY.
- 2. A DRIVEN ROD LOCATED INSIDE THE FENCE LINE, 10' IN LENGTH. COPPER-CLAD, STAINLESS STEEL CLAD RODS SHALL BE 5/8" IN 3. BONDING THE ROD TO A FENCE POST USING A CONDUCTOR SIZED APPROPRIATELY FOR THE DDESIGN AND OPERATING CONDITIONS.
- BUT NOT SMALLER THAN A #2 AWG COPPER CONDUCTOR OR ALUMINUM OF THE SAME AMPACITY. 4. BARBED WIRE AND WIRE MESH SHALL ALSO BE BONDED TO THE
- FENCE POST AT THAT LOCATION, USING SAME SIZED COPPER WIRE. 5. GROUNDING AND BONDING CONNECTIONS SHALL BE CLAMPED, SPLIT RING, MECHANICAL, BRAZED, WELDED, OR COMPRESSION
- 6. IF A GATE IN THE PERIMETER FENCE IS POSITIONED UNDERNEATH OVERHEAD LINES OR OVER MV TRENCH LINES, THEN FENCE POSTS ON BOTH SIDES OF THE GATE SHALL HAVE A GROUNDING KIT, OR ELSE AN UNDERGROUND JUMPER SHALL BE INSTALLED, AT LEAST

12" BELOW GRADE, EFFECTIVELY BONDING THE FENCE POST ON

BOTH SIDES OF THE GATE. 7. ADDITIONAL FENCE BRACING MAY BE REQUIRED ON LONGER FENCE

FENCE FABRIC NOTES:

- 1. ALL FENCE FABRIC, OTHER THAN GATES, SHALL BE BEKAERT
- 3. FENCE FABRIC SHALL BE MOUNTED WITH LARGE OPENINGS AT THE
- 5. FABRIC TO BE FASTENED WITH MANUFACTURER APPROVED

REVISIONS BY: LF/TAC CHK: JEU

Solar

Details

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<u>DATE</u> 1-30-24 <u>SCALE</u> As Shown JOB NUMBER 2022-083 <u>SHEET</u>



INVERTER POWER & COMMS CABLE TRENCH DETAIL (INV/C) PHOTOVOLTAIC NOT TO SCALE 103"-127" PROPOSED GRADE PAVEMENT SECTION OR LANDSCAPING (SEE PLANS) 36"-60" ²⁵° FRAME APPROVED BACKFILL PLACED AND COMPACTED IN 12" LAYERS (OR AS OTHERWISE APPROVED NO I.D. + 2' FINISH GRADE STONE LARGER THAN 3") WARNING TAPE-MIN. SUPPORT ENGINEER.

2. FINISH GRADE SHALL BE SET SO AS TO MAINTAIN EXISTING SHEET FLOW ACROSS THE DRIVEWAY. 12", MAX. 24" ABOVE DEPTH TO INVERT SAND BEDDING PLACED AND COMPACTED IN 6" LAYERS, MATERIAL SHALL MEET CT-D.O.T. M8.01-21 NOT TO SCALE NOTE: NOT FOR CONSTRUCTION. SEE SPECIFIC POST & RACKING SYSTEM PLANS BY OTHERS. TYPICAL RACKING MIRAFI FABRIC 140N OR EQUAL 6"MIN. MOUNTED ON DRIVEN POST BACKFILL TO SPRINGLINE OF PIPE WITH 3/4" CRUSHED STONE (CT-D.O.T. NOT TO SCALE STANDARD STORM DRAIN DETAIL