





KEY PLAN MAP 1"=1000'

Applicant

Santa Fuel, Inc. 154 Admiral Street Bridgeport, CT 06605

<u>Owner</u> Nancy B. Edgar Revocable Trust & Dianne Bordeaux Lenti 11 Mountain View Road Somers, CT 06071

Prepared By



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

DRAWIN





DRAWING INDEX		
SHEET TITLE	SHEET NO.	LATEST REVISION
CIVIL COVER SHEET · · · · · · · · · · · · · · · · · ·	· · · · · · 1 of 8 · · · · · · 2 of 8 · · · · · · · 3 of 8 · · · · · · 4 of 8 · · · · · · 5 of 8 · · · · · 6 of 8	9-14-23 9-14-23 9-14-23 9-14-23 9-14-23 9-14-23 9-14-23 9-14-23
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	Applicant Santa Fuel, Inc. 154 Admiral Street Bridgeport, CT 06605
<ol> <li>Reference Maps:         <ol> <li>"Connecticut State Highway Department Right of Way Map Town of Somers Rockville-Somers Road From The Ellington Town Line Norhterly About 11,400 Feet Route No. 108 Scale 1"=40' Date: Dec. 30, 1931"</li> <li>"Plan Of Land For Robert A. Bordeaux Mountain View Road-Somers, Conn." Scale: 1"=30'-0" June 23, 1966 Smith &amp; Wallen Engineering Company, Inc.</li> <li>"Property Of Robert A. Bordeaux &amp; Dianne L. Connors South &amp; Mountain View Roads Somers, Conn. Scale: 1"=100' September, 1993" Class A-2 by John J. Connolly, Jr., LS.</li> <li>"Earth Products Removal Property Of Robert A. &amp; Maire D. Bordeaux &amp; Dianne L. Connors South Road Rte. 83 &amp; Mountain View Road Somers, Connecticut Scale: 1"=100' Date: 3-6-96 Rev. 11-20-97" by J.R. Russo &amp; Associates</li> <li>Portion of the parcel is located in inland wetlands as delineated by Rick Zulick, Soil Scientist.</li> <li>The parcel is not located in a flood hazard zone, Firm Panel No. 0901120013D, Date August 16, 2006.</li> <li>Horizontal datum based on N.A.D. 1983.</li> </ol> </li> </ol>	REVISIONS         BY: LF/TAC       CHK: JEU
	Somers Solar 159 South Road Somers, Connecticut Map 05 Lot 73 Zone: A-1
	Boundary Survey



- Town of Somers Rockville-Somers Road From The Ellington Town Line Norhterly About 11,400 Feet Route No.
- Road-Somers, Conn." Smith & Wallen Scale: 1"=30' June
- "Property Of Robert A. Bordeaux & Dianne L. Connors South & Mountain View Roads Somers, Conn. Scale: 1"=100' September, 1993" Class A-2 by John J. Connolly,
- "Earth Products Removal Property Of Robert A. & Maire D. Bordeaux & Dianne L. Connors South Road Rte. 83 & Mountain View Road Somers, Connecticut Scale: 1"=100' Date: 3-6-96 Rev. 11-20-97" by J.R. Russo & Associates
- "Right Of Way Survey Town Of Somers Map Showing Easement Aquired From Somers Crossing LLC By The State Of Connecitcut Department Of Transporation South

I certify that the Inland Wetlands and Watercourse boundary line(s) as shown on this map is

TO THE BEST OF MY KNOWLEDGE AND BELIEF THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON.



1"=100'

JOB NUMBER

2023-001

<u>SHEET</u>

3 of 8



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1\2023 Civil 3D\2023-001 Louth Callan Renewables\Russo Drawings\2023-001.dwg,

# PERMANENT SEEDING (PS)

## SPECIFICATIONS

Time Of Year 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.

#### Site Preparation

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.

#### Seed Selection

Field Areas: Showy Northeast Native Wildflower & Grass Mix -Ernmx-153 by Ernst Conservation Seeds or approved equal. Stormwater Basin: New England Erosion Control/Restoration Mix for Dry Sites by New England Wetland Plants, Inc. or approved equal.

#### Seedbed Preparation

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 seedina.

#### Seed Application

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 only.

See guidelines in the Mulch For Seed measures.

## MAINTENANCE

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 the cause of the failure and repair as needed.

# TEMPORARY SEEDING (TS)

# 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 sliahtly 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 10–10–10 or equivalent.

## Seeding

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.

#### MAINTENANCE

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**

<u>Materials</u> Types of Mulches within this specification include. but are not limited to:

**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 spraving 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 seeding dates.

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 mowed. 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 application.

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.

#### Site Preparation

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

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 latest edition.

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 slippage.

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 needed.

# Site Preparation

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 10–10–10 or equivalent.

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

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.

- possible.
- codes.

# TEMPORARY SEEDING (TS)

# SPECIFICATIONS

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.

See guidelines in the Mulch For Seed measures.

## MAINTENANCE

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

# SOIL EROSION & 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

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, as ordered by the town, of any debris from these construction activities.

6. 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

7. 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.

![](_page_6_Figure_99.jpeg)

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

GEOTEXTILE SILT FENCE (SB)

NOT TO SCALE

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![](_page_6_Picture_102.jpeg)

NOT TO SCALE

	<u>CHEC</u>	<u>KLIST FOR EROSI</u>	ON CONTROL P	LAN		
PROJECT: Somers	ar Road, Somers, CT : Construction of	a Photovoltaic Se	olar Array			
PARCEL AREA: 98± a	cres			400.0000		VING ORS, Windsc
RESPONSIBLE PERSONI EROSION AND SEDIMEN CHECKLIST:	NEL: Martin Mija NT CONTROL PLAI	n, Louth Callan Re N PREPARER: J.	newables, 857— .R. Russo & As	492—6926 sociates, LLC		JRVEYC SERV Associe
Work Description Erosion & Sediment Control Measures	Location	Date Installed	Initials	Date Removed	Initials	
Install construction entrance	As shown on plan.					I.R. R 938, 15
Install perimeter sediment barriers	As shown on plan.					C Box
Install silt sack	As shown on plan.					
MAINTENANCE OF MEA	SIIDES.					
Location	Description o	or Number		Date	Initials	<i>nc</i> et 605
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Project Dates					<u> </u>	$\Gamma^{T} \mathcal{U}$
Date of groundbreaki	ng for project:					Ap, L J Adr ort,
<u>Date of final stabilize</u>	ation:					<i>utc</i> - 4 / 4 / Jep
Ρ	ROJECT NARRA	TIVE AND CONS	TRUCTION SE	QUENCE		$\alpha \tau$ 15 ride
nis project is located onstruction of photovo	at 159 South oltaic solar arro	Road in Somers ay. The suaaes	s, Connecticu sted schedule	t. The proposed of construction	activity is the is as follows:	
Conduct a pre-co	nstruction mee	ting on-site wi	th the contro	actor to review t	he design and	
requirements of the Install anti-tracking Install sediment by	ng pad (CE).	project porime	ur man. ters			
Clear trees & gru site.	b stumps in ar	reas as shown	on Plans. Al	l debris to be re	moved from the	
Strip topsoil in th regraded. Stockpile	e vicinity of th e suitable amou	e proposed sto unt of topsoil f	rmwater man or reuse on—	agement basins site in areas sho	and areas to be own. Stockpiles	
shall be surrounde Perform cuts/fills	ed by sediment to establish gr	barriers (SB). rades.			ob to	
Construct stormwo vegetation as soo	ater manageme n as practicabl and solar par	nt basins/conv e. els	eyance syster	n. Seed and mul	cn to establish	
Install electrical e Install security fer	quipment and a	distribution lines	5.			
. Restore all disturb 2. Remove sediment	oed areas with barriers after s	topsoil, seed m site is fully sta	nix and mulch bilized.	as soon as pra	icticable.	
onstruction of this sit anuary 2025, pendina	te is anticipate approvals. Te	d to begin in t mporary erosior	he spring of control med	2024 and be cou Isures shall be ir	mplete by Installed prior to	
ny soil disturbance an ermanent vegetation.	id maintained t	hroughout cons	struction until	soils have been	stabilized with	
ne Contractor shall ke	eep the area of	f disturbance to	o a minimum erosion contro	and establish ve	egetative cover be installed	
nd maintained in accorr rosion and Sediment (	ordance with th Control". as an	ese plans and nended. The Co	the "Connect ntractor shall	icut DEP Guidelin verify all conditi	es for Soil ions noted on	
ne plans and shall im	mediately notify	/ the Engineer	of any discre	pancies.	•	REVISIONS
neasures until all distu- equired to keep silt fe ccumulated sediment naterial is to be sprec hich are not to be po- naintain proper filtering naintained to insure e tabilized and vegetation	urbed areas are ence functional. has reached or ad and stabilize aved or built or g action. Sedim fficient sedimer on has been es	e stabilized. Acc In all cases, c ne-half above f ad in areas not n. Sediment ban nent barrier (SE at capture until tablished.	cumulated sec leposits shall the ground he subject to e rrier (SB) is 3) are to rem all areas ab	diment shall be r be removed whe eight of the silt rosion, or to be to be replaced a ain in place and ove the erosion of	removed as n the fence. This used in areas s necessary to shall be checks are	
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roperty owner shall b	<u>PUST CONSTR</u>	OF Derforming +	he following	ost construction	l	ar d cut se:
enance schedule:	- responsible f	s peronning t	and ronowing			oli loli scti
Maintain lawn & lands Inspect infiltration bas Repair eroded areas (	scape areas wit sin annually for and replace rise	h minimal pest evidence of hy	icides. ydrocarbons a tion as requir	nd remove by vo ed. Dredge bott	ac-truck. com to	h F S
remove accumulated observed. Mow infiltr	sediment every ation basin on	10 years or what regular basis	nen significan to maintain	t volume reduction as lawn area fo	on is r filtering of	TS Fout Cc Cc Cc
pollutants.						ne 9 S ers,
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12" BANK RUN (	GRAVEL —/ 🔌					
		UNIN .	XXXXX			Erosion &
		12" MODIFIED RIF		I MIRAFI 500X FAE OR EQUAL	BRIC	Notes & Details
RAP SLOF		TECTIC	ON AT	SPILLV	VAY	<u>DATE</u> 9–14–23
				58.0	F CONNEC	<u>SCALE</u> 1*=50'
						JOB NUMBER
				A Star	No 23552	2023-001
				AN CO	ONAL'ENGLINE	7 of 8

![](_page_7_Figure_0.jpeg)