

March Compost and Shredded Brush



This packet provides information about how and why to use compost in roadway construction and maintenance projects.

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Case Study #1	Compost in Roadside Vegetation Management, TxDOT Austin District
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TxDOT Experience	Summary of TxDOT experience using compost and/or shredded brush in various applications
Material Availability	Map and table listing companies that generate compost
Material Processors	Map and table listing companies that process compost and shredded brush
Specifications	TxDOT's special provisions allowing compost for use as manufactured topsoil, for erosion control and for general use (Item 1009). TxDOT's special provision "Shredded Brush as Erosion and Sedimentation Control" (Item 5080).

If you have questions or comments regarding this packet, contact:

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Material Brief

Compost is decayed organic matter that is dark, odorless and rich in nutrients. "Black gold" to gardeners, compost is helping the Texas Department of Transportation (TxDOT) establish vegetation and control erosion on highway roadsides. Research found that compost is not only a useful soil amendment, but also an effective erosion control material. In sandy soils, compost acts as a sponge, retaining water that would otherwise drain

below the reach of plant roots. Compost adds porosity to clay soils, so it drains more quickly to maintain even moisture content and prevent quick drying. Compost also inoculates the soil with many beneficial microbes, which extract nutrients to eventually pass on to plants.

Every year nearly four million tons of yard trimmings in the form of leaves, grass, tree limbs and weeds are dumped in Texas landfills. This amounts to about 20 percent of all trash in municipal landfills. Many cities and

private enterprises are diverting this material from landfills by composting.

Like compost, shredded brush is also useful along rights-of-way. It can increase soil moisture retention, reduce soil temperature extremes and prevent soil erosion from heavy rains. Shredded brush mulch, made from chippings of tree and landscape prunings and used as temporary erosion control during construction, can be mixed with the soil when construction is complete to help propagate vegetation. The benefits of shredded brush are increased when project-generated mulch is used.



Overview

Timely vegetation establishment is extremely critical after roadway construction is completed. If grass fails to grow, soil is washed away and erosion begins to threaten the paved surface of the roadway. Compost can be used as a soil amendment to improve topsoil quality. Both compost and shredded brush are effective erosion control aids that increase chances of successful vegetation establishment.

Vegetation establishment is the final phase of any roadway construction project. When a project nears completion, topsoil is bladed over the subgrade material. Grass seed is then hydroseeded

and a mulch or erosion control blanket applied over the seedbed. The area is then irrigated until sufficient vegetation is established. The Environmental Protection Agency (EPA) mandates stiff penalties for noncompliance. Delays are expensive to the contractor and inconvenient for the traveling public.

Quality topsoil is essential to adequate grass cover. Unfortunately, soil is often void of the organic matter needed for proper grass establishment, whether stockpiled on site or obtained from other sources. Research found that compost is a useful soil amendment to improve topsoil quality, while both compost and shredded brush are effective in erosion control.

Encouraged by these results, TxDOT drafted Special Specification 1009–“Furnishing and Placing Compost” with input from the Texas Natural Resource Conservation Commission (TNRCC), the Texas Transportation Institute (TTI) and the composting industry. This specification will enable TxDOT to build an environmentally sensitive transportation system while providing a much-needed market for organic waste.

Several research groups in Texas, the U.S. and abroad have effectively demonstrated the use of compost as an erosion control measure (Storey et al. 1996). W&H

of Portland, Oregon, used medium-grade mixed yard debris (MYD) compost, coarse-grade MYD, and leaf compost. Compost performance was compared with sediment control fencing and wood fiber hydromulch with tackifier.

Results from this study demonstrated that application of compost as an erosion control device is at least as effective as sediment control fencing and wood fiber mulch.

This study also referred to an Australian vineyard study performed on a 30 percent slope using compost with a bulk density of 475 kg/m³, applied at 356 mg/ha at about 7.6 cm cover. The Australian study showed that the effective service life of this application was about three years.

Results included a reduction in surface runoff, as well as soil loss. The decrease in runoff was attributed to the compost’s ability to absorb large amounts of water, allowing it to percolate into the soil. This study also revealed that soil loss resulting from this application was approximately 561 kg/ha, well below most specified erosion control guidelines (W&H Pacific 1993).

A five-year study on wood chips and other wood fragments as soil amendments was conducted at the Connecticut Agricultural Experiment Station in New Haven. This study revealed that wood chips are not toxic to soil and had a modest but generally favorable effect on soil structure, organic matter content and associated soil properties (Lunt 1955).

References

Demonstration Project Using Yard Debris Compost for Erosion Control. Final Report. W&H Pacific. Portland, Oregon, 1993.

Lunt, Herbert A. *The Use of Woodchips and Other Wood Fragments as Soil Amendments*. Bulletin 593. The Connecticut Agricultural Experiment Station. March 1955.

Storey, Beverly B., Jett A. McFalls, Sally H. Godfrey. *The Use of Compost and Shredded Brush on Rights-of-Way for Erosion Control*. Research Report 1352-2F. Texas Transportation Institute. College Station, Texas, July 1996.



Research Summary

Use of Compost and Shredded Wood on Rights-of-Way

Problem Statement

Highway construction has historically been viewed as a major contributor of nonpoint source pollution. Nonpoint source pollution—or pollution, such as surface runoff, that cannot be linked to a particular source—is cited as being the most prevalent cause of contamination in receiving waters in the U.S.

Damage control for erosion at construction sites can include erosion control nets, open-weave geotextiles, geosynthetic mattings, erosion control blankets, loose mulches, hydromulches and chemical soil binders. Most are designed to absorb the kinetic energy of rainfall by minimizing its contact with the soil and reducing water velocity. The performance of common sediment control methods such as fences, straw bales and sediment ponds depends on the quantity of site erosion and maintenance.

State recycling legislation and the possible ban of vegetative materials from Texas landfills, combined with a nationwide expansion of waste-reduction mandates and controls on debris burning,

prompted TxDOT to investigate the recycling of roadside refuse from right-of-way clearing operations. Additionally, the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 encourages the environmentally safe use of compost along the rights-of-way of federally funded highways.

Objectives

The TTI conducted project 0-1352, “The Use of Compost and Shredded Wood on Rights-of-Way,” for TxDOT, TNRCC, and the Federal Highway Administration (FHWA). The purpose of the study was to determine the performance of compost and shredded wood as erosion control materials for use on highway rights-of-way based on literature reviews and field tests.

Findings

The application of mulch—either compost or shredded wood—appears to be an effective erosion control method, and the mulch does not need to be removed after construction. Left in place, the mulch can provide a soil amendment to encourage the establishment of vegetation. Compost may also chemically bind some toxic substances, which suggests that it may have some application in bio-remediation.

The following are some potential advantages of using compost or shredded wood for erosion control:

- ◆ Compost may, if incorporated, beneficially alter the texture and structure of the soil in a manner that resists erosion.
- ◆ Compost and/or shredded wood can be left in place after construction.
- ◆ Using wood chips and compost uses debris that might otherwise be placed in landfills or burned.
- ◆ Use of wood chips and compost on rights-of-way provides environmental benefits.

Several research groups in the United States and worldwide have demonstrated the potential of compost as an erosion control material. Compost in a sufficiently dense mat can provide a physical barrier between rainfall and surface soil, dissipating the impact energy of rainfall and minimizing erosive forces.

TTI tested three materials in six test plots. The test materials were

- ◆ compost, consisting of mixed yard debris and municipal sewage sludge;
- ◆ shredded wood with a polyacrylamide tackifier (TERRA TACK™ SC);
- ◆ shredded wood with a hydrophillic colloid tackifier containing germination stimulant (RMB Plus).

There were three sand plots and three clay plots on a 1:3 slope in a simulated highway environment. Rain simulations for one-year, two-year, and five-year storm events were tested for sediment loss on the plots. The percentage of vegetative cover was captured using the Vegetation Coverage Analysis Program.

Type of Plot	Vegetation Cover	Sediment Loss (kg/10m ²)
Compost on Sand	92%	3.88
Compost on Clay	99%	0.34
Wood Chips w/TERRA TACK™ SC on Sand	48%	11.27
Wood Chips w/TERRA TACK™ SC on Clay	95%	0.15
Wood Chips w/RMB Plus on Sand	50%	10.97
Wood Chips w/RMB Plus on Clay	57%	0.30

The compost produced 92 percent vegetation cover on sand and 99 percent vegetation cover on clay. The test plots lost 3.88 kg/10 m² of sediment on the sand plots and 0.34 kg/10 m² on the clay plots. Wood chips with TERRA TACK™ SC produced only 48 percent cover on sand while producing 95 percent vegetation cover on clay. These plots lost sediment at a rate of 11.27 kg/10 m² on sand and 0.15 kg/10 m² on clay. Wood chips with RMB Plus produced only a 57 percent vegetation cover on clay and a 50 percent vegetation cover on sand. The plots lost sediment at a rate of 10.97 kg/10 m² on sand and 0.30 kg/10 m² on clay.

The results obtained for compost met the minimum performance standards required

by TxDOT for soil retention blankets. Wood chips with TERRA TACK™ SC would qualify as a material for use on clay with slopes of 1:3 or less. The wood chips with RMB Plus did not meet any TxDOT standard.

Test results exceeded expectations and are most encouraging.

Certainly, the potential cost savings of using compost or wood chips with tackifier rather than rolled materials are significant. However, cost-effective application methods and quality-control issues must be resolved before recommendations can be made for general application.

Debris from right-of-way clearing operations may provide a cost-effective source of wood chips.

The contents of this summary are reported in detail in TTI Research Report 1352-2F, *The Use of Compost and Shredded Wood on Rights-of-Way For Erosion Control*, Beverly B. Storey, Jett A. McFalls and Sally H. Godfrey, preliminary report dated November 1995. This summary does not necessarily reflect the official views of the FHWA, TNRCC or TxDOT.

To obtain a copy of this report, please contact the TxDOT Construction Division Research Librarian at (512) 465-7644.



Case Study #1

Compost in Roadside Vegetation Management, TxDOT Austin District

Project Overview

According to the definition by Texas Senate Bill 1340, compost is “the disinfected and stabilized product of the decomposition process that is used or sold for use as a soil amendment, artificial top soil, growing medium amendment or other similar uses.” Application of compost increases soil air space and drainage and moisture-holding capacity, releases nutrients over a long period of time, helps mitigate salt concentrations, buffers against heavy metals, encourages earthworms and other beneficial insects and microorganisms, and helps buffer against extremes in soil pH.

TxDOT owns more than 800,000 acres of land adjacent to the state’s transportation corridors. The establishment of right-of-way vegetation is frequently difficult because of overcompacted soils or soils with little or no nutritive value. A compost test project was located in Austin at a site where several efforts had failed to establish vegetation.

Compost, in the form of Dillo Dirt™, was applied, and vegetation growth was seen within a few weeks. The grass was observed to grow quite rapidly in the area where the Dillo Dirt™ was placed. Compost appears to offer the road construction industry a number of benefits such as rapid establishment of vegetative coverage, reduced soil erosion and, of course, beneficial use of a recycled material.

The project site is a right-of-way located at the intersection of Ben White Boulevard and Lamar Boulevard in southwest Austin. There was commercial development (malls, restaurants, movie theaters, strip centers, etc.) to the east, and commercial development with some multi-family units on the northwest corner of this project site. The southern corner was primarily undeveloped with only one strip center. There were no residential areas immediately adjacent to this site. Dillo Dirt™ was applied on an area of nine acres.

Processing requirements for Dillo Dirt™: Sewage sludge from city of Austin wastewater plants goes through a thickening facility to reduce the water content. It undergoes anaerobic digestion to reduce odor and pathogen levels. The material then goes to a concrete drying basin.

Finally, it is mixed with chipped tree trimmings and yard waste, composted and screened.

The final product is called Dillo Dirt™. It is processed to meet Class A standards per federal law and meets all TNRCC requirements for “uncontrolled” use as a soil amendment (Davio 1997).

The average physical and chemical characteristics for Dillo Dirt™ in 1996 are presented in the table below (Davio 1997).

Physical and Chemical Characteristics of Dillo Dirt™

Test Parameter	Result
Organic Nitrogen	1.8% (17,827 mg/kg)
Ammonium Nitrogen	0.2% (2,270 mg/kg)
Nitrate Nitrogen	0.035% (332 mg/kg)
Phosphorous	0.9% (9,367 mg/kg)
Potassium	0.4% (17,827 mg/kg)
Moisture	40%
Bulk Density	1,000 lbs/yd ³
Average pH	7.76

Note: These values are provided on a dry weight basis.

The supplier of Dillo Dirt™ was Hornsby Bend Biosolids Management Plant, 2210 S. FM 973, Austin, Texas. The amount of material produced by this facility in 1996 was 60,000 yd³.

Construction techniques: Since the project area had already been graded, seeded, and installed with erosion control matting, the application of Dillo Dirt™ was limited to spreading at the appropriate thickness to allow for seed germination. A two-stall manure spreader was used for that purpose, and care was also taken not to disturb the erosion control matting already installed. However, it was recommended on subsequent projects that the composted biosolids be disked into the top three to four inches of soil prior to

seeding and installation of erosion control netting.

The rate of application of Dillo Dirt™, based on land limiting constituents, was 4.8 tons/acre. A total of 89 yd³ of Dillo Dirt™ was applied in this project. Dillo Dirt™ has a bulk density of 1,000 lbs/yd³, and this low density may provide advantages through lower transportation costs. The contractor absorbed the cost of transporting the 24 truckloads of material required for this project.

Specifications

As mentioned previously, the compost on this project was installed after final grating and erosion control matting installation. For normal applications, however, TxDOT's Statewide Special Specification Item 1009—"Furnishing and Placing Compost" is included at the end of this packet.

Test Data

Results indicating how Dillo Dirt™ complied with the 1996 TNRCC regulatory limits are presented below (Davio 1997).

Compliance of Dillo Dirt™ with TNRCC Regulations

Test Parameter	Amount in Dillo Dirt™	Regulatory Limit
Fecal Coliform	11 MPN/g	1,000 MPN/g
Arsenic (As)	15.3 mg/kg	75 mg/kg
Cadmium (Cd)	3.2 mg/kg	85 mg/kg
Chromium (Cr)	44.1 mg/kg	3,000 mg/kg
Copper (Cu)	194.6 mg/kg	4,300 mg/kg
Lead (Pb)	40.1 mg/kg	840 mg/kg
Mercury (Hg)	1.6 mg/kg	57 mg/kg
Nickel (Ni)	23.8 mg/kg	420 mg/kg
Selenium (Se)	11.2 mg/kg	100 mg/kg
Zinc (Zn)	456.7 mg/kg	7,500 mg/kg

Note: These values are provided on a dry weight basis.

Project Contacts

Name(s)	Organization	Telephone Number/Fax
Danette Shelton	President, Roadway Specialties, Inc.	Phone: (512) 280-6666 Fax: (512) 280-6066
Barrie Cogburn	Landscape Architect, Design Division, TxDOT	Phone: (512) 416-3086 Fax: (512) 416-3098
Jody Slagle, P.E.	Hornsby Bend Biosolids Management Plant, Water and Wastewater Utility	Phone: (512) 929-1016 Fax: (512) 929-1004
Darrel Anglin Billy Benningfield Russel Lenz, P.E.	TxDOT South Austin Area Office 2499 A S. Capital of Texas Hwy., #100 Austin, TX 78746	Phone: (512) 328-2256 Fax: (512) 327-3425

Results

This was a very successful project. The grass grew within a few weeks where several previous efforts at germination had failed.

References

Davio, Rebecca. *Applying Composted Biosolids to Highway Rights-of-Way*. Class Project Report. Texas Department of Transportation, Spring 1997.



Case Study #2

Shredded Brush in Erosion Control, TxDOT Lufkin District

Project Overview

Shredded brush mulch is made from the chippings of tree and landscape prunings. Mulch is placed on the soil surface for the purpose of protecting the soil and plant roots. Some of the benefits of organic mulch include soil moisture retention, reduced soil temperature extremes, and prevention of soil erosion from heavy rain damage.

TxDOT conducted a study on shredded brush to evaluate its effectiveness as an erosion control measure through a test project constructed in San Augustine County, Lufkin District. It was concluded that shredded brush could be used best as a temporary erosion control measure during construction.

The project site is located on SH103, 6.5 miles east of the intersection between SH103 and SH147. The total project area was 9,104 m². The shredded brush, as a mulch, was applied in October 1997. The subgrade soil in the right-of-way was of a clayey type. The local average annual rainfall is 40-49 inches. The wood chips were derived from pine and hardwood

trees. The types of vegetation used in this project were ryegrass and bermuda grass.

Processing requirements: No processing was required since the material was already cured when delivered for the project.

Physical and chemical characteristics of shredded brush: The maximum length of shredded brush was 76 mm (3 in). It was of a brown/black color and of a musky odor. Shredded brush is nontoxic to plants and is aesthetically acceptable.

Source: The mulch supplier was Elliott's Agricultural Service Inc., US 96 Pineland, Texas. They supply mulch to a large number of clients in Texas and other states. According to this supplier, mulch is in high demand.

Construction techniques: The embankment slope was prepared to grade (1:6), and a dozer was run up and down to leave track marks. Half of the brush mulch was applied, followed by grass seed and fertilizer. The remaining mulch was then placed on top.

The shredded brush was applied using a trackhoe and dozer at the application rate of 0.9-1.3 kg/m². A 12-12-12 fertilizer was used at a rate of 0.162 kg/m². TERRA TACK™ SC, a tacking agent, was injected uniformly into the shredded brush at a rate of 6.75 kg/ha.

Specifications

The draft TxDOT Special Specification Item 5080—"Shredded Brush for Erosion and Sedimentation Control" (as used in this project) is included at the end of this packet.

Results

Seeding before placement is not effective, since shredded brush shades out plant growth. Shredded brush appears to retard germination and plant growth by reducing the amount of sunlight reaching the soil. For that reason, it is suggested that shredded brush be considered as a temporary erosion control measure in areas where other permanent erosion control measures, such as re-establishment of native vegetation, are planned.

Some methods of crimping or disking the shredded brush into the soil would prevent the erosion problems on steep slopes. Runoff from rainfall caused rivulets to form through the shredded brush. These rivulets must be repaired by hand to prevent erosion of the exposed soil.

(Note: Research indicates that shredded brush can perform effectively at 1:3 slopes.)

Economic analysis: The cost of mulch was \$12.50/yd³ on this project. The costs of various erosion control materials including compost are shown below (Storey et al 1996).

Costs of Erosion Control Materials

Erosion Control Material	Average Cost (\$/m ²)
Synthetic Blanket	3.9
Organic Blanket	1.2
Mulch	0.34
Wood Chips from ROW Cleaning	0
Compost	0.97

References

Storey, Beverly B., Jett A. McFalls, and Sally H. Godfrey. *The Use of Compost and Shredded Brush on Rights-of-Way for Erosion Control*. Research Report 1352-2F. Texas Transportation Institute, July 1996.



Compost

This table provides information about TxDOT’s experience using compost in roadside vegetation management applications, including soil amendment and erosion control.

District	Construction Application	Material	Results	Installed	Specification	Location	Additional Notes
Abilene	Landscape and Beautification	Compost (as soil amendment)	Good	1989	160	District wide	
Beaumont	Landscape and Beautification	Compost (as soil amendment)	Unknown		General note to require sole source	Jefferson	Acquired from city of Beaumont landfill
Yoakum	Landscape and Beautification	Compost (as erosion control)	Good	1995	None	District wide	
Yoakum	Landscape and Beautification	Compost (as soil amendment)	Good	1995	None	District wide	

Shredded Brush

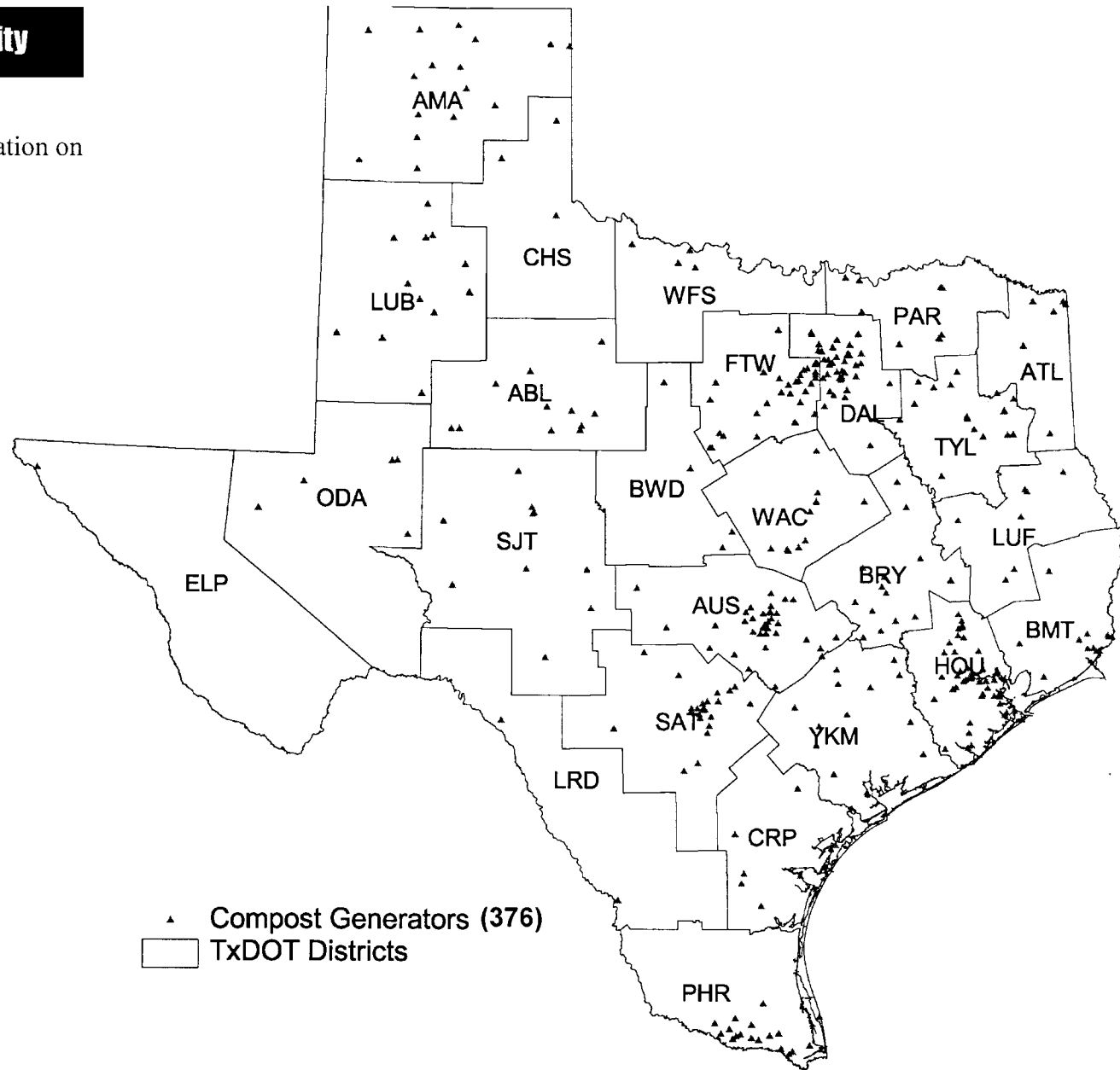
This table provides information about TxDOT’s experience using shredded brush and tree trimmings in roadside vegetation management applications, including soil amendment and erosion control.

District	Construction Application	Material	Results	Installed	Specification	Location	Additional Notes
Abilene	Landscape and Beautification	Shredded Brush (as erosion control)	Good	1993		District wide	
Fort Worth	Landscape and Beautification	Shredded Trees	Good		Maintenance	District wide	Used as mulch. Material obtained from city of Fort Worth.
Lubbock	Landscape and Beautification	Shredded Tree Trimmings	Excellent	1992		District wide	When we trim trees, we save the mulch for use on landscape sites and office complex flower beds.
Wichita Falls	Landscape and Beautification	Shredded Brush (as erosion control)		1995	General Notes	Montague, Cooke	Shred all materials from prepared ROW/clear and grub and use as mulch on bare soil areas.
Yoakum	Landscape and Beautification	Shredded Brush (as erosion control)	Good	1994	None	District wide	



Material Availability

The map and table provide information on companies that generate compost.



Companies with Ability and/or Willingness to Generate Compost

COMPOSTER	CONTACT	POSITION	ADDRESS	CITY	ST	ZIP	PHONE
Taylor County	Mr. Larry G. Bevill	Administrative Assistant County Adm	300 Oak St	Abilene	TX	79602	915-674-1221
City of Abilene	Ms. Donna Albus	Program Coordinator	PO Box 60	Abilene	TX	79604-0060	915-676-6437
City of Ackerly	Ms. Mary Schuelke	Water Superintendent	Box 67	Ackerly	TX	79713	915-353-4868
City of Addison	Robin Jones	Director of Streets	PO Box 144	Addison	TX	75001	214-450-2849
City of Alamo	Mr. Jose Villescascas	Director Public Works	423 N Tower Road	Alamo	TX	78516	210-787-0006
City of Alice	ms. Joyce Rotge	Coordinator	PO Box 3229	Alice	TX	78333	512-668-7276
Jim Well County	Ms. Joyce Rotge	Coordinator, Building Inspection	PO Box 3229	Alice	TX	78333	512-668-7276
City of Allen	Mr. Edie McMillion	Customer Serice Cood	1 Butler Circle	Allen	TX	75002	214-727-0100
City of Hillcrest Village	Ms. Becky Schuenemann	City Secretary	PO Box 1172	Alvin	TX	77512-1172	713-585-3499
City of Amarillo	Mr. Michael Rice	Asst. Director	PO Box 1971	Amarillo	TX	79186	806-378-9337
Chambers County	Mr. Donald Brandon	County Engineer	PO Drawer H	Anahuac	TX	77514	409-267-8379
City of Angleton	Ruth Hartel	City Administrator	121 S Velasco	Angleton	TX	77515	409-849-4364
City of Arlington	Ms. Lorrie Anderle	Recycling Coordinator	PO Box 231	Arlington	TX	76004-0231	817-459-6771
City of Lakeway	Ms. Cynthia Evans		104 Cross Creek	Austin	TX	78734-4470	512-261-6093
Living Earth Technology Co - Austin	Mr. Michael Payne		10624 Ranch Road 620	Austin	TX	78726	512-219-5311
Timberline Resource	Mr. Rob Harbison		13071 Pond Springs R	Austin	TX	78729	512-219-1954
Texascapes	Mr. Richard Fadal	President	1603 Manor Road	Austin	TX	78722	512-472-0207
Austin Landscape Supplies	Mr. Charles Pingleton		16401 Burnet Rd	Austin	TX	78728	512-255-2517
Community Environmental Services Inc	Ms. Susan Parten	President	2101 South IH-35	Austin	TX	78741	512-443-2733
Wells Branch MUD	Bill Glass		2106 Klattenhoff	Austin	TX	78728	512-251-9814
East Side Cafe	Mr. David Kolosta		2113 Manor Rd	Austin	TX	78722	512-476-5858
City of Austin Water & Wastewater Utility	Mr. Jody Evans		2210 S FM 973	Austin	TX	78725	512-929-1016
J-V Dirt + Loam	Don Legacy	President	2900 W Anderson Ln	Austin	TX	78757	512-927-1977
Livelawn	Mr. Steve Harp		3204 Whites Dr	Austin	TX	78735	512-301-2621
Blackwell Lackey & Associates	Mr. Glenn Myers	Engineer	708 Dessau Rd	Austin	TX	78753	512-251-6169
Garden-Ville of Austin Inc	Mr. John Dromgoole		8648 Old Bee Caves R	Austin	TX	78735	512-288-6113
Bert's Dirts	Mr. Don McKay	President	9873 Highway 290 East	Austin	TX	78724	512-272-5109
City of Austin	Mr. Rick Fuszek	Manager	PO Box 1088	Austin	TX	78767-8857	512-499-1974
COA SWS	Ms. Maria Archuletal		PO Box 1088	Austin	TX	78767	514-499-1829
Texas Disposal Systems Inc	Mr. Jim Doersam		PO Box 17126	Austin	TX	78760-7126	512-243-4100
Travis County TNR-NR	Mr. Charles E. Williams		PO Box 1748	Austin	TX	78767	512-708-4498
Lower Colorado River Authority	Mr. Jack Ranney	Environmental Coordinator	PO Box 220	Austin	TX	78767-0220	512-473-3200
Bastrop County	Terry M. Hays	Transfer/Recycling Section	PO Box 9	Bastrop	TX	78602	512-321-7071
City of Bay City	Mr. Jon E. Abshier		1217 Avenue J	Bay City	TX	77414	409-245-9183

COMPOSTER	CONTACT	POSITION	ADDRESS	CITY	ST	ZIP	PHONE
City of Beaumont	Carol Matthews-Williams	Recycling Coord.	PO Box 3827	Beaumont	TX	77704	409-842-4427
City of Bellaire	Mr. Richard L. Larsen	Director of Public Works	7008 S Rice	Bellaire	TX	77401-4495	713-662-8170
City of Bellville	Mr. Marcus Johnston	City Administrator	30 South Holland	Bellville	TX	77418	409-865-3136
Temple-Belton Regional Sewage Brazos River Authority	Mr. Curtis Smalley	Systems Superintendent	2405 E 6th Avenue	Belton	TX	76513	817-939-6471
City of Belton	Louis Griffin		PO Box 120	Belton	TX	76513	817-933-5812
City of Benbrook	Mr. Gary Maddigan		PO Box 26569	Benbrook	TX	76126	817-249-3000
City of Big Lake	Mr. Jerry Floyd	Director	PO Box 300	Big Lake	TX	76932	915-884-2511
City of Big Spring	Brooke Kerr	Secretary/Landfill	4100 E FM 2378	Big Spring	TX	79720	915-264-2378
Big Spring Correction Centers	Chesley M. Wilson	Compost/Vocational Instructor	PO Box 3470	Big Spring	TX	79721-3470	915-264-9511
BBD Organics	Ben Hammond		Rt 1 Box 267	Blanco	TX	78606	830-833-4813
City of Boerne	Pat Landry		PO Box 1677	Boerne	TX	78006	210-249-9511
City of Borger	Mr. Henry Veach		PO Box 5250	Borger	TX	79008	806-273-8064
City of Breckenridge	Mr. Gary G. Ernest	City Manager	209 North Breckenridge	Breckenridge	TX	76424	817-559-8287
City of Brenham	Stacy Dierking	Recycling Coordinator	PO Box 1059	Brenham	TX	77833	409-277-1248
Washington County	Ms. Stacy Dierking	Recycling Coordinator Advisory Council	Rt 1 Box 283	Brenham	TX	77833-1059	409-836-1433
HQ AFCEE EP - Brooks AFB	Ms. Nancy Carper		3207 North Road	Brooks AFB	TX	78235	210-536-4964
City of Brownfield	Eldon Jobe	Administrative Assistant	201 West Broadway	Brownfield	TX	79316	806-637-4547
City of Brownsville	Mr. Jimmy P. Rivera	Supervisor	PO Box 911	Brownsville	TX	78520	210-831-3641
City of Brownsville Public Works	Mr. David Ivory		PO Box 911	Brownsville	TX	73501	210-542-7511
Brazos County	Mr. Alvin W. Jones	County Judge	300 E 26th St Suite	Bryan	TX	77803	409-361-4102
City of Bryan	Mr. Roger Drews	Division Manager -- Waste Services	PO Box 1000	Bryan	TX	77805	409-361-3632
City of Buffalo	Mr. Byron Ryder	Mayor	PO Box 219	Buffalo	TX	75831	903-322-4741
City of Buffalo Gap	Mr. Charles Peligh	Mayor	PO Box 506	Buffalo Gap	TX	79508	915-572-3347
City of Burkburnet	Mr. John Brookman	Dir of Public Works	501 Sheppard Rd	Burkburnet	TX	76354	817-569-2263
City of Burleson	Mr. Kirk Barnes	Recycling Coordinator	141 W Renfro	Burleson	TX	76028	817-295-1113
Fertillama Inc	Ms. Glenda McEvoy		Rt 2 Box 113	Burton	TX	77835-9606	409-830-8856
City of Caldwell	Mr. William L. Broadus	City Administrator	107 South Hill	Caldwell	TX	77836	409-567-3271
City of Canadia	Mr. Ray Hastings	Superintendent	6 Main Street	Canadian	TX	79014	806-323-6473
City of Canton	Mr. Johnny Mallory	City Manager	PO Box 245	Canton	TX	75103	903-567-2826
Compost Corporation	Mr. Fletcher Sims		Rt 1 Box 202	Canyon	TX	79015	806-655-4515
City of Carrollton	Ann Jacobs	Recycling Coordinator	PO Box 110535	Carrollton	TX	75011-0535	214-446-3661
City of Carthage	Mr. Bob Mihlhauser	Director of Public Works	PO Box 400	Carthage	TX	75633	903-693-2910

COMPOSTER	CONTACT	POSITION	ADDRESS	CITY	ST	ZIP	PHONE
City of Cedar Hill	Ms. Margaret Potter	Administrative Intern	PO Box 96	Cedar Hill	TX	75140	214-291-5105
Shelby County	Mr. John D. Windham	Mayor	PO Box 1744	Center	TX	75935	409-598-2941
City of Charlotte	Darlene Drawe	City Secretary	PO Box 216	Charlotte	TX	78011	210-277-1414
City of Childress	Mr. Gilbert Bailey	Asst Public Works Director	PO Box 1087	Childress	TX	79201	817-937-3684
City of Clarendon	Mr. Ernie Johnston		PO Box 1089	Clarendon	TX	79226-1089	806-874-3438
City of Cleburne	Mr. Ted Elder	Superintendent	PO Box 657	Cleburne	TX	76033-0657	817-641-2236
Garden Prep Soils	Mr. David Wilson		PO Box 788	Cleburne	TX	76033	817-558-4769
City of College Station	Katie Gibson	Recycling Coordinator	PO Box 9960	College Statio	TX	77842-9960	409-764-3691
City of Columbus	Mr. John H. Brasher	City Manager	PO Box 87	Columbus	TX	78934	409-732-2366
City of Comanche	Mr. Bill Flannery	City Secretary	114 W Central	Comanche	TX	76442	915-356-2616
Western Waste Industries			100 IH-45	Conroe	TX	77301	409-760-3685
Living Earth Technology Co - Conroe			17835 IH-45 South	Conroe	TX		409-273-1315
Living Earth - The Woodlands			7751 IH-45 South	Conroe	TX		409-321-4001
City of Panorama Village	Mr. Dale Evans	Councilman #2	98 Hwion Dr	Conroe	TX	77304-1123	409-856-2821
Louisiana Pacific	Mr. Tom Keeland	Special Projects Manager	PO Box 3107	Conroe	TX	77305	409-756-0541
Nature's Way Resources Inc	Mr. John Ferguson	President	Rt 14 Box 570	Conroe	TX	77384	409-273-1200
City of Coppell	rhonda Brothers	Service Coordinator	PO Box 478	Coppell	TX	75019	972-304-3552
Inland Services	Mr. Frank Vasquez		PO Box 824	Copperas Cove	TX	76522	817-532-2256
City of Corpus Christi	Estela Garcia	Recycling Coordinator	PO Box 9277	Corpus Christi	TX	78469-9277	512-857-1970
City of Corsicana	Mr. Larry Murray	Director	200 North 12th Street	Corsicana	TX	75110	903-654-4888
The Scotts Company Hyponex Corp.	Mr. James L. Kilburn	Regional Operations Manager	PO Box 247	Cresson	TX	76035	800-433-2384
City of Crockett	Mr. Buddy L. Robinson	Solid Waste Director	200 North 5th Street	Crockett	TX	75835	409-544-5156
City of Crosbyton	Mr. Gary Mitchell	City Secretary	221 West Main	Crosbyton	TX	79322-2250	806-675-2301
Crosby County	Mr. Bill Odom	County Commissioner	412 S Farmer	Crosbyton	TX	79322	806-675-2521
Lone Star Enviro Systems	Mr. John Marler		PO Box 111	Cuero	TX	77954	817-275-5645
McMaster Rice Hull Compost	Mr. James McMaster	Consultant	PO Box 826	Cypress	TX	77429-0826	713-468-4590
City of Dalhart	Mr. Steve Fisk	Director	PO Box 1071	Dalhart	TX	79022	806-249-2023
Grow Moore	David Moore	President	PO Box 241	Dalhart	TX	79022	806-384-2021
Living Earth Technology Co - Dallas			1808 W. Northwest Hwy	Dallas	TX		972-869-4332
City of University Park	Mr. Kenneth O. Chance	Superintendent Sanitation Services	2525 University Blvd	Dallas	TX	75206-4111	214-987-5451
City of Dallas	Mr. Brooks Love		3112 Canton St	Dallas	TX	75226	214-670-4475
Lawns of Dallas	Mr. Doug Smelage		3407 Hawes	Dallas	TX	75235	214-357-6522
City of Highland Park - Parks & Sanitation	Mr. Ronnie Brown		4700 Drexel Dr.	Dallas	TX	75205-3198	214-521-4161

COMPOSTER	CONTACT	POSITION	ADDRESS	CITY	ST	ZIP	PHONE
American Organics Inc	Dr. James T Fisher	President	8923 Vista View Dr	Dallas	TX	75243	214-340-8478
Mid-West Bio Systems	Mr. David Moore		HCR 1 Box 118	Dallas	TX	79022	806-333-2021
The Natural Way	Mr. Howard Garrett		PO Box 140650	Dallas	TX	75214	214-365-0606
Laidlaw	Mr. Doug Rivers			Dallas	TX		817-332-7301
City of Decatur	Mr. Brett Shannon	City Administrator	PO Box 478	Decatur	TX	76234	817-627-2741
City of Deer Park	Mr. Paul Pandish	Assistant Director of Public Works	PO Box 700	Deer Park	TX	77536	713-478-7255
City of Del Rio	Ms. Beth Eby	Director, Parks and Recreation	PO Box 4239	Del Rio	TX	78841-4239	210-774-8541
City of Denison	Mr. Jerry White	Dir of Public Works	108 W Main	Denison	TX	75020	903-465-2720
City of Denton	Mr. Joseph Lalenti	Recycling Coordinator	901 Texas Street	Denton	TX	76201	817-566-8420
University of North Texas	Mr. Lanse Fullinwider		PO Box 13767	Denton	TX	76203	817-369-7318
City of Desoto	Rickey Brown	Superintendent of Park Services	809 W Spinner Road	Desoto	TX	75115	214-230-5712
City of Dickenson	Mr. Don Taylor	City Administrator	2716 Main Street	Dickinson	TX	77539	713-337-2489
G & H Inc	J. T. Grisham		916 Preston Lane	Dublin	TX	76446	817-445-2952
Aztex Dairy Inc	Mr. Ezra Cortes	President	PO Box 159	Dublin	TX	76446	817-445-4626
Henderson Feed and Fertilizer Sales Inc	Mr. Robert Billingsley	President	PO Box 350	Dublin	TX	76446	817-445-3131
Aurora Dairy Corporation	Mr. Keith Boone	Dairy Manager	Rt 2 Box 14	Dublin	TX	76446	817-445-4499
Lledtoc Farms	Mr. Joe Cordell		Rt 5 Box 274	Dublin	TX	76446	817-445-4129
City of Dumas	Rogelio G. Ortiz	Recycling & Supt	PO Box 438	Dumas	TX	79029	806-935-2636
City of Duncanville	Mr. David McBurnett	Administrative Assistant	PO Box 380280	Duncanville	TX	75138-280	214-780-5062
City of Edgewood	Mr. Finis Skinner	Mayor	PO Box 377	Edgewood	TX	75117	903-896-4448
City of Edinburg	Ms. Rosie E. Lopez	Recycling Coordinator	PO Box 1079	Edinburg	TX	78504	210-383-7515
Hidalgo County	Mr. Leonard Camarilla		PO Box 12306	Edinburg	TX	78539	210-383-3112
City of El Lago	Ms. Eva D. Williams	Council Member	98 Lakeshore Dr	El Lago	TX	77586-6398	713-326-1951
City of El Paso	Mr. Richard Razo	Recycling Coordinator	7969 San Paulo	El Paso	TX	79907	915-593-2784
City of Eldorado	Mr. Jack Dean	Water Supt	PO Box 713	Eldorado	TX	76936	915-853-2458
City of Elsa	Servando Trevino	Code Enforcement	PO Box 427	Elsa	TX	78543	210-262-2127
Shred-Tech Inc	Mr. Clyde Godfrey		12700 Calloway Cemet	Eules	TX	76040	817-267-0669
City of Eules	Cathy Dimaggio	Muni Relations Corrdinator	201 N Ector	Eules	TX	76039-3595	817-685-1410
City of Fairfield	Mr. Ted Mayo	City Administrator	222 South Mount	Fairfield	TX	75840	903-389-2633
City of Farmers Branch	Ms. Joan Walker	Customer Relations Representative	PO Box 819010	Farmers Branch	TX	75234	214-247-3131
City of Floydada	Mr. Joe Falcon	Dir of Public Works	PO Box 10	Floydada	TX	79235	806-983-2834
Tarrant County	Ms. Lisa McMillan	Economic Development Coordinator	100 E. Weatherford S	Fort Worth	TX	76196-0609	817-884-2643
City of Fort Worth	Lori Yaist	Recycling Coordinator	4100 Columbus Trail	Fort Worth	TX	76133	817-871-5171

COMPOSTER	CONTACT	POSITION	ADDRESS	CITY	ST	ZIP	PHONE
Clear Fork Materials	Mr. Jim Wiley		PO Box 81	Fort Worth	TX	76008	817-441-7777
Fort Worth Water Dept Village Creek Waste	Mr. Ron Carlson	Residuals Manager	PO Box 870	Fort Worth	TX	76101	817-860-8905
Silver Creek Materials	Mr. Bart McKay		PO Box 150665	Fort Worth	TX	76108	817-246-2426
City of Fredricksburg	Mr. Russel Immel	Conservation Programs Coordinator	PO Box 111	Fredericksburg	TX	78624-0111	210-997-7521
City of Frisco	Pippa Couvillion	Recycling Coordinator	PO Drawer 1100	Frisco	TX	75034	214-335-5519
City of Galveston	Mr. John C. Sanchez	Recycling Coordinator	PO Box 779	Galveston	TX	77553	409-766-2122
City of Garden Ridge	Mr. Jay P. Millikin	Mayor	9357 Schoenthal Rd	Garden Ridge	TX	78266-1839	210-651-6632
City of Garland	Mr. William Pippin	Plant Supervisor	PO Box 469002	Garland	TX	75046-9002	214-205-2000
Live Oak County	Mr. Jim Huff	County Judge	PO Box 699	George West	TX	78022-0699	512-449-2733
City of Georgetown	Mr. Hartley Sappinton	Director of Community Services	PO Box 409	Georgetown	TX	78627-0409	512-930-3637
City of Giddings	Mr. James E. Dover	City Manager	118 E. Richmond St	Giddings	TX	78942	409-542-2311
Vital Earth Resources	Mr. Scott Hammer		PO Box 1148	Gladewater	TX	75647	903-845-2163
Somervell County	Mr. James Young	County Engineer	Rt 1 Box 287	Glen Rose	TX	76043	817-897-2239
City of Goliad	Jayne Hoff	City Secretary	152 W End Street	Goliad	TX	77936	512-645-2351
City of Gonzales	E. T. Gibson	City Manager	PO Box 547	Gonzales	TX	78629	210-672-2815
City of Gordon	Mr. Kenneth Epperson		PO Box 227	Gordon	TX	76453	817-693-5676
City of Grand Prairie	Ruth Westfall	Recycling Coordinator	PO Box 534045	Grand Prairie	TX	75053-4045	214-237-8061
City of Grapevine	Mr. Michael Webb	Assistant to the City Manager	PO Box 95104	Grapevine	TX	76099	817-481-0387
City of Grapevine Compost Gardens	Mr. Larry Wilhelm	Project Director	PO Box 95104	Grapevine	TX	76108	
Earthworks	Mr. Larry Wilhelm		PO Box 95104	Grapevine	TX	76051	817-424-0540
City of Greenville	Mr. John Cobb	Parks and Recreation Manager	PO Box 1049	Greenville	TX	75403-1049	903-457-3106
City of Groesbeck	Martha Stanton	City Secretary	PO Box 227	Groesbeck	TX	76642-227	817-729-3293
City of Groves	Mr. George Newsome	Director of Public Works	PO Box 846	Groves	TX	77619	409-962-4471
City of Gruver	A J Ratliff	City Manager	PO Box 947	Gruver	TX	79040-947	806-733-2424
City of Hallettsville	Mr. Ervin J. Kolacny	Director of Public Works	PO Box 507	Hallettsville	TX	77964	512-798-3681
City of Haltom City	Fran Burns	Pub Info Officer	5024 Broadway Ave	Haltom City	TX	76117	817-834-7341
Earthwise Organics	Thomas L. Harr		PO Box 533816	Harlingen	TX	78553	210-245-7150
City of Harlingen	Ms. Judy Ybarra	Director of Planning	PO Box 2207	Harlingen	TX	78550	512-427-8735
City of Haskell	Mr. Thomas Rodriguez	Asst Dir of Public Works	PO Box 1003	Haskell	TX	79521	817-864-2333
City of Hearne	Mr. Ruben Gomez	Mayor	210 Cedar Street	Hearne	TX	77859	409-279-3463
Rusk County	Ms. Patty Sullivan	Commissioner Secretary	115 N Main	Henderson	TX	75652	903-657-0326
City of Henderson	Ms. Kelly Poovey	Admin Secretary	400 West Main	Henderson	TX	75652	903-657-6551
Richard Stengal Composting	Mr. Richard Stengal		Rt 5 Box 138	Hereford	TX	79045	806-357-2364

COMPOSTER	CONTACT	POSITION	ADDRESS	CITY	ST	ZIP	PHONE
City of Hewitt	Mr. Dennis H. Woodard	City Manager	PO Box 610	Hewitt	TX	76643	817-666-6171
City of Higgins	Mr. Ron Pierce	City Manager	PO Box 56	Higgins	TX	79046-0056	806-852-3131
City of Highland Village - Parks Dept	Mr. Gary Edwards	Parks Superintendent	1800 FM 407	Highland Villa	TX	75067-6742	
City of Hillsboro	Mr. John Patton	Main Street Director	PO Box 568	Hillsboro	TX	76645-0568	817-582-2119
City of Hitchcock	Mr. Harry W. Robinson	Mayor	7423 Highway 6	Hitchcock	TX	77563	409-986-5591
Waste Reduction Services	Mr. Eric Heyne		100 Genoa-Red Bluff	Houston	TX	77034	713-922-1000
City of Bunker Hill Village			11977 Memorial Drive	Houston	TX	77024	713-467-9762
Organic Resources	Mr. Tom Massimin		1967 Bingle	Houston	TX	77055	713-467-7972
City of West University Place	Mr. Jerry Burns	Deputy Director	3800 University Blvd	Houston	TX	77005	713-662-5843
ICSEP	Mr. Joseph Gadman		535 Lovett Rd	Houston	TX	77006	713-527-8711
Living Earth Technology Co.-Houston			5625 Crawford Rd.	Houston	TX		713-466-7360
BFI Organics Southeast Texas Landfill District	Mr. Steve Tennison	District Organics Manager	5757A Oates Rd	Houston	TX	77078	713-671-1595
Solid Waste Management Dept Recycling Division	Mr. Larry Stockhom	Marketing and Education Manager	601 Sawyer Suite 720	Houston	TX	77055	713-467-7972
City of Houston	Mr. Edward Chen	Deputy Assistant Director	601 Sawyer Suite 500	Houston	TX	77007	713-865-4166
Living Earth Technology Co.-Gulf Freeway			7751 Gulf Frwy.	Houston	TX		713-321-4001
Tascom Inc	Mr. Jim Adamoli		PO Box 41846	Houston	TX	77241	713-937-0900
Nelson's Services	Mr. Lyle Forsythe			Houston	TX		713-353-7559
City of Hughes Springs	Mr. George Fite	City Manager	PO Box 805	Hughes Springs	TX	75656	903-639-7519
City of Humble	Mr. Mark J. Martin	Assistant City Manager	PO Box 1627	Humble	TX	77347	713-446-3061
City of Huntsville	Ms. Cindy Blaylock	Sanitation Superintendent	1212 Ave M	Huntsville	TX	77340	409-294-5723
Texas Department of Criminal Justice	Mr. Jay Elgin	Environmental Coordinator		Huntsville	TX	77340	
City of Hurst	Mr. Alan Weegir	City Manager	1505 Precinct Line R	Hurst	TX	76054	817-788-7028
Browning-Ferris Industries	Mr. Randy Smith			Hutchins	Tx		214-225-8151
City of Iowa Park	Mr. Michael Price	Director of Public Works	PO Box 190	Iowa Park	TX	76367	817-592-2642
City of Irving	Ms. Fran Witte	Waste Minimization Coordinator	825 West Irving Blvd	Irving	TX	75060	214-721-2355
Blanco County	Mr. Larry Depew	Asst to Comm Crt	PO Box 471	Johnson City	TX	78636	210-868-7251
City of Jourdanton	Mr. Roy Underwood	City Manager	1220 Simmons	Jourdanton	TX	78026	210-769-3589
City of Junction	Mr. Jack Smith	City Manager	730 Main St	Junction	TX	76849-4608	915-446-3336
Sentinel Resources	Mr. Edward Pupo	Vice President	1219 Turn Creek	Katy	TX	77450	713-491-7775
City of Kennedale	Mr. Michael H. Box	Director of Development	PO Box 268	Kennedale	TX	76060	817-483-1297
City of Kerrville	Ms. Megan Caffall	Recycling Coordinator	800 Junction Hwy	Kerrville	TX	78028	210-257-8000

COMPOSTER	CONTACT	POSITION	ADDRESS	CITY	ST	ZIP	PHONE
East Texas COG	Mr. Kevin Glanton		3800 Stone Road	Kilgore	TX	75662	903-984-8641
City of Kilgore	Ms. Lawanna Holt	Administrative Assistant	PO Box 990	Kilgore	TX	75663	903-984-5081
City of Killeen	Mr. Peter Dillilo	Recycling Manager	PO Box 1329	Killeen	TX	76540	817-554-7572
City of Kingsville	Ms. Meg Conner	Director of Public Works	PO Box 1458	Kingsville	TX	78364	512-595-8006
City of La Grange	Mr. Gary L. Becher	Project Manager	155 E. Colorado St	La Grange	TX	78945	409-968-5859
City of La Porte	Mr. Phillip J. Webb	Solid Waste Superintendent	PO Box 1115	La Porte	TX	77572	713-471-9650
City of Lago Vista	Mr. Neil A. Petterson	Director of Public Works	PO Box 4727	Lago Vista	TX	78645	512-267-1155
City of Lake Jackson	Mr. William P. Yenne	City Manager	25 Oak Dr	Lake Jackson	TX	77566-5289	40--297-2481
Landscape Services/Bush's Best Compost	Mr. George Bush	President	Box 461	Lamarque	TX	77568	409-935-1539
City of Lampasas	Ms. Cherry Hargrove	Economic Development Coordinator	PO Box 666	Lampasas	TX	76550-0666	512-556-6831
City of Lancaster	Mr. Robert A. Foster	Director of Public Works	PO Box 940	Lancaster	TX	75146	214-227-6050
City of Laredo	Mr. Scott Wilkinson	Recycling Coordinator	PO Box 2337	Laredo	TX	78044-2337	210-723-2051
Austin Wood Recycling	Mr. Zachary Lynde		4950 FM 1431	Leander	TX	78641	512-259-7430
Polk County	Mr. James McAlister	Waste Management Dept.	PO Box 528	Leggett	TX	77350	409-398-5647
City of Lewisville	Mr. Steven L. Bacchus	Director of Public Works	1100 N. K	Lewisville	TX	75029-9002	214-219-3501
Upper Trinity Regional Water District	Mr. Tom Taylor	Executive Director	PO Draawer 305	Lewisville	TX	75067	214-219-1228
City of Liberty	Mr. Harvey Joiner	Solid Waste Superintendent	1829 Sam Houston	Liberty	TX	77575	409-336-3684
The Wonder Company	Mr. Paul Hughes		Rt. 1, Box 192	Livingston	TX		409-398-2548
City of Longview	Mr. John Thompson	Vice-President/General Manager	PO Box 150483	Longview	TX	75615	903-759-6060
City of Lubbock	Ms. Stephanie Frnaklin	Recycling Coordinator	PO Box 2000	Lubbock	TX	79457	806-767-2491
City of Lufkin	Ms. Diana Fears	Recycling Coordinator	PO Box 190	Lufkin	TX	75901-0190	409-633-0215
City of Luling	Mr. Sam Jernigan	Director of Public Works	PO Box 630	Luling	TX	78648-0630	210-875-2810
City of Mabank	Ms. Louann Confer	City Secretary	PO Box 293	Mabank	TX	75147	903-887-3241
City of Madisonville	Mr. Jim White	City Manager	203 Cottonwood	Madisonville	TX	77864	409-348-2748
City of Mason	Mr. Dwain Leifeste	Utility Director	PO Box 68	Mason	TX	76856-0068	915-347-6449
City of McAllen	Mr. Al Gonzalez	Director of Public Works	PO Box 220	McAllen	TX	78502	210-686-3881
City of McKinney	Mr. Glyn Strickland	Sanitation Coordinator	PO Box 517	McKinney	TX	75069	214-542-1431
Ramrod Corporation	Mr. Eric Kothmann	President	PO Box 1106	Menard	TX	76859	915-369-4518
City of Menard	Mr. James F. Cannon	City Administrator	PO Box 177	Menard	TX	76859-0177	915-396-4706
City of Mercedes	Mr. Albert Zavala	Director of Public Works	PO Box 837	Mercedes	TX	78570	210-565-3114
City of Merkel	Mr. Robert Harris	Director of Utilities	100 Kent	Merkel	TX	79536	915-928-4911
City of Mesquite	Mikell Kerr	Recycling Coordinator	PO Box 850137	Mesquite	TX	75185-0137	214-288-7711

COMPOSTER	CONTACT	POSITION	ADDRESS	CITY	ST	ZIP	PHONE
Recycled Wood Products Division of Fuel Harvester	Mr. Doug Hammock		2501 Commerce Dr	Midland	TX	79703	915-563-2419
City of Midland	Mr. Jack W. Burns	Assistant Director of Utilities	PO Box 1152	Midland	TX	79702	915-685-7275
City of Midlothian	Ms. June Smith	City Secretary	235 North 8th Street	Midlothian	TX	76065	214-775-3481
City of Mineola	Mr. Jim Slayton	Administration	PO Box 179	Mineola	TX		903-569-6183
Shary Acres			3421 N Sherry Rd	Mission	TX	78572	210-581-7783
Living Earth Technology Co.- Missouri City			1503 Industrial Dr.	Missouri Ci	TX		281-499-5641
Bailey Bark Materials	Jeff Bailey		3366 Woden Rd	Nacogdoches	TX	75961	800-209-8017
City of Nacogdoches	Ms. Glynda Cessna	Recycling Coordinator	PO Box 630648	Nacogdoches	TX	75963-0648	409-564-4693
City of Navasota	Mr. Gary Johnson	Director	PO Box 910	Navasota	TX	77868-0910	409-825-6450
City of Nederland	Mr. Steve Hamilton	Director	PO Box 967	Nederland	TX	77627	409-723-1541
City of new Boston	Mr. David Ruff	Building Officer	301 E N Front	New Boston	TX	75570	903-628-5596
Kaderi Materials	Mr. Ray Kaderi		8200 IH 35N	New Braunfels	TX	78130	210-625-1400
City of New Braunfels	Mr. Mike Shands	City Manager	PO Box 311747	New Braunfels	TX	78131-1747	210-608-2100
City of North Richland Hills	Ms. Pam Burney	Environmental Services Director	7200-C Dick Fisher D	North Richland	TX	76180	817-581-5771
City of Oak Ridge North	Mr. Bill Lennon	Recycling Committee	27326 Robinson Rd	Oak Ridge Nort	TX	77385	713-292-4648
City of Olton	Mr. Layton Covington	Superintendent	PO Drawer Q	Olton	TX	79064-0934	806-285-2130
City of Orange	Mr. Walter Cobb	City Administrator	3640 Mockingbird	Orange	TX	77630	409-886-3873
City of Pinehurst	Mr. Curtis F. Jeanis	City Administrator	3640 Mockingbird St	Orange	TX	77630	409-886-3873
Sabine Environmental Services	Ms. Betty Morrison		PO Box 310	Orange	TX	78630	409-289-0115
Crockett County	Judge Jeffrey Sutton	County Judge	PO Box 1857	Ozona	TX	76943	915-392-2965
City of Palestine	Mr. Bob Follett	Director	504 N Queen	Palestine	TX	75801	903-731-8494
Palo Pinto County	Mr. Harold M. Couch	County Judge	PO Box 190	Palo Pinto	TX	76484	817-659-1253
City of Pampa	Mr. Richard Stone	Sanitation Superintendent	PO Box 2499	Pampa	TX	79066-2499	806-669-5840
City of Panhandle	Mr. Thomas J. Blazek	City Manager	PO Box 129	Panhandle	TX	79068	806-537-3517
City of Pantego	Ms. Tracy Norr	City Secretary	1614 S Bowen Rd	Pantego	TX	76013	817-274-1381
East Texas Organics	Mr. Cary Lawler		PO Box 153	Paris	TX	75461	214-982-6888
City of Paris	B. A. Huddleston	Director of Public Works	PO Box 9037	Paris	TX	75461-9037	903-785-7511
City of Pasadena	Mr. Orland Hyde	Solid Waste Coordinator	PO Box 672	Pasadena	TX	77501	713-477-7382
Clean Pearland	Ms. Delores Fenwick		3519 Liberty Drive	Pearland	TX	77581	281-485-2411
City of Pearland	Ms. Delores Fenwick	Executive Director	PO Box 3041	Pearland	TX	77588-3041	713-485-2411
Reeves County	Mr. Armando Gil	Director of City-County Dept of Health	PO Box 929	Pecos	TX	79772	915-445-9656

COMPOSTER	CONTACT	POSITION	ADDRESS	CITY	ST	ZIP	PHONE
City of Pflugerville	Mr. Steve Jones	Assistant City Manager	PO Box 589	Pflugerville	TX	78691-0589	512-251-3076
City of Pharr	Mr. Ernesto Silva	Municipal Solid Waste Coordinator	PO Drawer B	Pharr	TX	78577	210-787-8573
City of Plains	Mr. David Brunson	City Administrator	PO Box 550	Plains	TX	79355	806-456-2288
City of Plainview	Mr. Del Essary	Superintendent for Solid Waste Manager	901 Broadway	Plainview	TX	79072	806-296-1118
	Mr. Billy F Sylvester		Rt 2	Plainview	TX	79072	806-293-2207
Living Earth Technology Inc.-Plano			5032 Split Trail Rd.	Plano	TX		972-578-7632
City of Plano	Ms. Nancy Nevil	Solid Waste Manager	PO Box 860358	Plano	TX	75086-0358	214-964-4104
City of Plano Solid Waste Department	Ms. Heather Merchant		PO Box 860358	Plano	TX	75086	214-964-4111
City of Port Arthur	Mr. Will Larrain	Director of Water Utility	PO Box 1089	Port Arthur	TX	77641-1089	409-983-8100
City of Port Isabel	Manue Hinojosa	City Manager	PO Box 146	Port Isabel	TX	78578-0146	210-943-2682
Calhoun County	Ms. Patricia Kalisek	Manager	201 W Austin	Port Lavaca	TX	77979	512-552-7791
City of Port Neches	Mr. Jerry Sterling	Sanitation Superintendent	PO Box 758	Port Neches	TX	77651	409-722-6844
City of Pottsboro	Mr. Richard Starr	Maintenance	PO Box 1099	Pottsboro	TX	75076	903-786-2844
City of Primera	Mr. Jose J. Raminéz	Mayor	Rt 1 Box 176	Primera	TX	78552	
City of Quitman	Mr. Chuck Horn	Director	City of Quitman	Quitman	TX	75783	903-763-2223
City of Ralls	Ms. Mary Helen Jamerson	City Secretary	PO Box 785	Ralls	TX	79537-0785	806-253-2558
City of Rankin	Ms. Anita Sparks	Recycling Coordinator	PO Box 61	Rankin	TX	79778	915-693-2474
Upton County	Mr. Jack P. Parker	Rankin Chamber of Commerce	PO Box 797	Rankin	TX	79778-0797	915-693-2169
Willacy County	Mr. Simon Salinas	County Judge	170 N 3rd	Raymondville	TX	78580	210-689-2412
City of Richardson	Ms. Sheri Campbell-Husband	Administrative Assistant	411 West	Richardson	TX	75083-0309	972-238-4222
City of Richmond	Ms. Karen Schrom	City Secretary	215 Halbert	Richmond	TX	77531	409-265-2082
City of Robert Lee	Mr. John Q. Conley	Mayor	PO Box 26	Robert Lee	TX	76945	915-453-2831
City of Rockport	Mr. Rick	Code Enforcemnt	PO Box 1059	Rockport	TX	78381	
City of Rocksprings	Mr. Jeff C. Yeaman	Director of Public Works	PO Box 796	Rocksprings	TX	78880	210-683-3181
Fort Bend County	Mr. Ronald D. Drachenberg	Assistant County Engineer	PO Box 1449	Rosenberg	TX	77471	713-342-3039
City of Rosenberg	Ms. Eleanor Henderson	Director	PO Box 32	Rosenberg	TX	77471-0032	713-342-2531
City of Rotan	Mr. Harold Sanders	City Manager	302 W Sammy Baugh	Rotan	TX	79546	915-735-2251
City of Round Rock	Mr. Kim Lutz	Environmental Services Superintendent	221 E Main	Round Rock	TX	78664	512-218-5559
City of Rowlett	N. L. Stewart	Director of Public Works	PO Box 99	Rowlett	TX	75088	214-475-1314
City of Sabinal	Mr. Darrell E. Smart	Director of Public Works	PO Box 838	Sabinal	TX	78881	210-988-2218
Naturally Texas	Ms. Sylva Speck		112A South Fillacre	San Angelo	TX	76901	915-949-9782
SJM Enterprises	Ms. Joyce Martini		930 West 48th	San Angelo	TX	76903	915-655-8301
City of San Angelo	W. H. Wilde	Public Works Department	PO Box 1751	San Angelo	TX	76902-1751	915-657-4206

COMPOSTER	CONTACT	POSITION	ADDRESS	CITY	ST	ZIP	PHONE
Leon Creek Wastewater Treatment Plant	Mr. Joseph Rubalcaba		1104 Mauerman Road	San Antonio	TX	78274	-
City of Olmos Park	Mr. Byron E. Hollinger	City Manager	119 W El Prado	San Antonio	TX	78212-2095	210-824-3281
Billy Long Enterprises	Mr. Billy Long	Owner	12227 Ridge Summit	San Antonio	TX	78247	210-496-7289
City of Balcones Heights	Mr. Roy Miller	City Administrator	123 Altgelt Ave	San Antonio	TX	78201	210-735-9148
Keller Materials	Mr. Steve Keller		1920 SE Loop 410	San Antonio	TX	78220	210-648-4221
City of San Antonio	Ms. Edna R. Ortega	Acting Recycling Superintendent	1940 Grandstand	San Antonio	TX	78238	210-522-8830
City of San Antonio Solid Waste Division	Mr. Dan Cardenas		1940 Grandstand	San Antonio	TX	78238	210-522-8809
San Antonio Water System	Mr. Hoyt Seidensticker		3225 Valley Road	San Antonio	TX	78221	210-704-7621
City of Terrell Hills	Mr. Cal Johnson	City Manager	5100 N New Braunfels	San Antonio	TX	78209-5822	210-824-7401
City of Alamo Heights	Mr. Paul Sontag	City Engineer	6116 Broadway	San Antonio	TX	78209	210-826-2138
City of Leon Valley	Mr. Fred Stolz	Assistant Director of Public Works	6400 El Verde Rd	San Antonio	TX	78238	210-681-1232
Garden-Ville Fertilizer Company	Mr. Malcolm Beck		7561 E Evans Road	San Antonio	TX	78216	210-651-6115
Waste Management Inc	Mr. Tim Barr		PO Box 7778	San Antonio	TX	78207	210-224-4654
City of San Juan	Mr. Ted Trevino	Director of Public Works	709 South Nebraska	San Juan	TX	78589	210-787-9923
City of San Marcos	Mr. Richard Medina	General Service Supervisor Public W	630 E Hopkins	San Marcos	TX	78666	512-393-8021
Fayette County	Mr. Tom Odom	Commissioner	PO Box 423	Schulenburg	TX	78945	409-743-3250
City of Schulenburg	Mr. Ronald Brossmann	City Administrator	PO Box 8	Schulenburg	TX	78956	409-743-4126
City of Sealy	Mr. Roger Carlisle	City Administrator	PO Box 517	Sealy	TX	77474	409-885-3511
City of Seguin	Ms. Susan Kent	Safety Coordinator	PO Box 591	Seguin	TX	78155	210-401-2416
City of Sallowater	Mr. Dan Keith	Director of Public Works	PO Box 246	Shallowater	TX	79363	806-832-4380
South Plains Compost	Mr. Wayne Schilling		Rt 1 Box 124	Slaton	TX	79364	806-745-3559
City of Smithville	Mr. Steve Early	Water/Wastewater Director	PO Box 449	Smithville	TX	78957	512-237-3282
City of Snyder	Ms. Carolyn House	Solid Waste Coordinator	PO Box 1341	Snyder	TX	79550-1341	915-573-4960
City of Somerville	Mr. Lloyd A. Behm	City Administrator	PO Box 159	Somerville	TX	77879-0159	409-596-1122
City of South Padre Island	Mr. Lamberto Ball	Public Works Dept	PO Box 3410	South Padre Is	TX	78597	210-761-1025
City of Spearman	Mr. Kelvin Knaufl	City Manager	PO Box 37	Spearman	TX	79081-0037	806-659-2524
Com-Tech Environmental Services	Mr. Conraad Nelson		6909 Louette Road	Spring	TX	77379	713-370-1140
City of Stephenville	Mr. Donald B. Davis	City Administrator	345 North Belknap	Stephenville	TX	76401	817-965-7887
Texas Agricultural Extension Service-Texas A&M	Mr. Joe Pope	County Extension Agent - Agriculture	Courthouse Annex	Stephenville	TX	76401	817-965-1460
City of Stinnett	Mr. Charlie Boyd	City Administrator	PO Drawer 909	Stinnett	TX	79083-0909	806-878-2422
J&L Wholesale	Mr. John Hussman		PO Box 1301	Stratford	TX	79084	
City of Sugarland	Ms. Colleen Spencer	Program Coordinator	PO Box 110	Sugarland	TX	77487-0110	713-275-2772

COMPOSTER	CONTACT	POSITION	ADDRESS	CITY	ST	ZIP	PHONE
B & W Organics	Mr. Bernie Beers		PO Box 283	Sulphur Springs	TX	75483	903-885-3131
Dairyland Automation Inc.	Mr. John Willis		PO Box 283	Sulphur Springs	TX	75483	903-885-3131
Hopkins County	Mr. Rich G. Goodwill	Facility Director	Rt 1 Box 121A	Sulphur Springs	TX	75482	903-885-6590
City of Sunray	Mr. Greg Smith	City Manager	PO Box 250	Sunray	TX	79086	806-948-4111
City of Sweeny	Mr. Larry Piper		PO Box 248	Sweeny	TX	77480	409-548-3321
City of Sweetwater	Mr. Paul McCarthy	City Services Director	PO Box 450	Sweetwater	TX	79556-0450	915-236-6313
Williamson County	Ms. Dorothy Fischer		PO Box 1104	Taylor	TX	76574	512-365-2311
City of Taylor	Mr. Charlie Rutter	Coordinator of Public Works	PO Box 810	Taylor	TX	76514	512-352-5818
City of Temple	Ms. Lisa Sebek	Recycling Coordinator	2 North Main St	Temple	TX	76501	817-770-5725
City of Terrell	Mr. Steve Rogers	Director of Public Works	PO Box 310	Terrell	TX	75160	214-551-6604
Bowie County	Mr. Owen Blair	Division Manager	2708 W 7th St	Texarkana	TX	75501	903-794-4111
City of Texarkana	Ms. Sarah Buettner	Chairperson Texas Recycling Committ	4009 Honeysuckle Lane	Texarkana	TX	75503	903-838-7088
Texarkana Water Utility	Mr. Kent Bryant	Assistant to the Exec Dir	PO Box 2008	Texarkana	TX		
City of Texas City	Mr. Joel Smith	Solid Waste Manager	PO Box 2608	Texas City	TX	77592-2608	409-948-3111
City of The Colony	Ms. Janice Brady	Recycling Coordinator	5151 N Colony Blvd	The Colony	TX	75056-1219	972-625-0081
Overgaard & Associates	Ms. Karen Overgaard		43 Fire Flicker Place	The Woodlands	TX	77381	281-367-6684
The Woodlands	Ms. Lynne Aldrich	Recycling/Environmental Education	PO Box 7859	The Woodlands	TX	77387-7859	713-367-5647
City of Tomball	R. L. Johnson	Director of Public Works	401 W Market St	Tomball	TX	77375	713-351-5484
City of Troup	Mr. J. Moose	City Administrator	PO Box 637	Troup	TX		903-842-3142
City of Troy	Mr. Ellis Prince	City Secretary	PO Box 389	Troy	TX	76579-0389	817-938-2505
City of Tulia	Mr. Bryan Easum	City Manager	201 N Maxwell	Tulia	TX	79088	806-995-3547
Touchstone Ranch	Mr. Tim Krisan		PO Box 130608	Tyler	TX	75701	903-534-4100
Waste Recyclers	Mr. Bobby Curtis		PO Box 7495	Tyler	TX	75711	903-839-8466
City of Universal City	Mr. Gene Thrope	City Manager	PO Box 3008	Universal City	TX	78148-2108	210-659-0333
Red River Ecology Center	Ms. Carol Roberts		PO Box 1986	Van Alstyne	TX	75495	903-482-5908
City of Venus	Mr. John Daniel	City Administrator	PO Box 380	Venus	TX	76084	214-366-3736
City of Vernon	Mr. Steve Ainsworth	Utilities Director	2015 Oak St	Vernon	TX	76384	817-552-9961
City of Victoria	Mr. Mike Wegner		PO Box 1758	Victoria	TX	77902	512-572-2768
City of Vidor	Lamech Wright	Mayor	170 N Main	Vidor	TX	77662	409-769-5473
City of Waco	Mr. Joe Oswald		2400 Rose	Waco	TX	76702	254-751-8563
City of Lacy Lakeview	Mr. Bob Gordon	Chairman	PO Box 154549	Waco	TX	76715	254-799-3611
Brazos River Authority	Mr. Mike Meadows		PO Box 7555	Waco	TX	76714	254-772-6010
Peaceable Kingdom School			PO Box 313	Washington	TX	77880-0313	

COMPOSTER	CONTACT	POSITION	ADDRESS	CITY	ST	ZIP	PHONE
City of Weatherford	Mr. Chuck Ward	Director of Sanitation	PO Box 255	Weatherford	TX	76086	817-598-4000
City of Webster	Mr. Jim Williams	Director of Public Works	PO Box 57130	Webster	TX	77598-7130	409-332-1826
City of Weslaco	Mr. Juan P. Flores	Director of Public Works	500 S. Kansas	Weslaco	TX	78596	210-968-3181
Texas Agricultural Extension Service	Mr. Brent Auvermann		6500 Amarillo Blvd	West Amarillo	TX	79106	806-356-5401
City of West Orange		Assistant City Administrator	2700 Austin Ave	West Orange	TX	77630	409-883-3468
City of Wharton	Mr. Phillip Bush		101 W. Burleson	Wharton	TX	77488	409-532-2491
City of Wheeler	Ms. Claudine Finsterwald		PO Box 98	Wheeler	TX	79096	806-826-3222
City of Whitehouse	Ms. Monica Klein	Recycling Coordinator	PO Box 882	Whitehouse	TX	75791	903-839-7009
City of Wichita Falls	Mr. David Leheldt	Sanitation Superintendent	PO Box 1431	Wichita Falls	TX	76307-1431	817-761-7401
Hays County	Mr. Jerry Pinnex	Director of Resource Management	1691 Carney Lane	Wimberley	TX	78676	512-847-3504
City of Wink			PO Box 397	Wink	TX	79789-0397	915-527-3441
City of Woodville	Mr. Donald W. Shaw	City Secretary	113 N. Charlton St	Woodville	TX	75979-4801	409-283-2234
North Texas Municipal Water District	Mr. David Clay	Superintendent for Solid Waste	PO Box 2408	Wylie	TX	75098	214-442-5405
City of Wylie	Mr. Jim Holcomb	Purchasing Agent Finance Dept	PO Box 428	Wylie	TX	75098	214-442-8142
City of Yoakum	Mr. Calvin Cook	Director of Public Works	PO Drawer 738	Yoakum	TX	77995	512-293-6321
Aransas County	Mr. Thomas Touchstone	Director of Environmental Health	301 N. Live Oak		TX		512-790-0121
Hood County	Mr. Kent Ferguson	District Conservationist			TX		-
LCRA Highland Lakes	Mr. Mike Tommes				TX		512-473-7607
Texas Public Works Association	Mr. Paul Causey	Executive Secretary			TX		409-845-3003

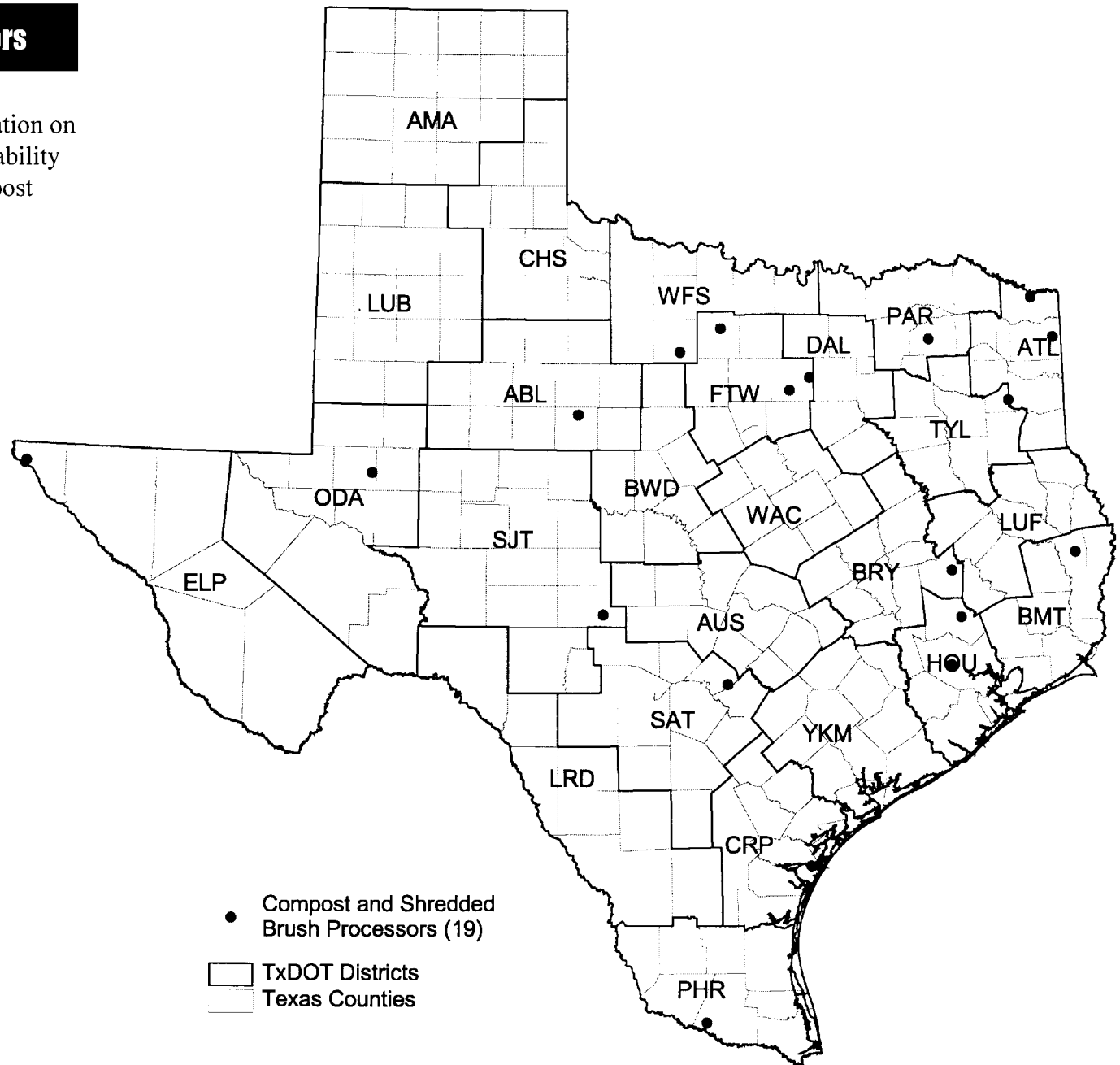
The information provided in this table is based on submission by the companies listed. TxDOT does not represent that any of this information is necessarily accurate or correct. Likewise, TxDOT does not intend, nor should anyone conclude, that companies listed are endorsed in any way or for any purpose by TxDOT.

Any person or firm not listed, who believes that the person or firm qualifies to be so listed, is invited to submit the required information. Please contact Andrew Andradi at (512) 416-2562 for more information.



Material Processors

The map and table provide information on companies that have expressed an ability and/or willingness to process compost and/or shredded brush.



Companies with Ability and/or Willingness to Process Compost and/or Shredded Brush

Company	Contact	Address	City	ST	Zip	Phone
Archer-Western Contractor	Joe Linderman	1170 W. Corp. Drive	Arlington	TX	76006	(817) 640-3898
H.V. Caver, Inc.	Glenn S. Caver	1303 W. Main	Atlanta	TX	75551	(903) 796-8253
Pavers Supply Co.-Conroe Plant	Robert L. Moore	9498 FM 1485	Conroe	TX	77303	(409) 756-6960
Jobe Concrete Products, Inc	Stanley P. Jobe	#1 McKelligon Canyon Rd.	El Paso	TX	79930	(915) 565-4681
Thelin Recycling	Michael J. Hill	5225 Thelin St.	Fort Worth	TX	76115	(817) 926-5626
Zack Burkett Co.-Perry Pit	Terry Ellis	SH 16, 10 mi. S of Graham	Graham	TX	76450	(940) 549-6732
Bio Energy Landscape & Maintenance	Jon Richardson	7930 Pinemont	Houston	TX	77040	(713) 462-8552
Recycled Stone Co.-Huntsville Plant	Robert Moore	US190 East	Huntsville	TX	77340	(409) 756-6960
Garrett Construction	John Mizell	Garrett Road	Ingleside	TX	78362	(512) 776-7575
Zack Burkett Co.-Richards Pit	Terry Ellis	3 mi S of Jacksboro, FM 4	Jacksboro	TX	76458	(940) 549-6732
Mathews Construction Company	L.L. Mathews Jr.	641 E. Milam	Jasper	TX	75951	(409) 384-4520
Cherokee Bridge & Road Inc.	Harold Dean Martin		Junction	TX	76849	(915) 446-3710
Russell & Sons Construction Co.	Tim Tyl	307 S. Eastman RD.	Longview	TX	75602	(903) 758-5578
Beck Pit	Bob Thompson	3 Mile Line & Iowa Road	Mission	TX	78573	(956) 581-2751
Bowie Bridge LLC	Chad Cunningham	CR 4004 & Hwy 8 South	New Boston	TX	75570	(903) 628-6670
Jones Brothers	D.L. Jones	1401 S. Grandview	Odessa	TX	79760	(915) 332-0721
Compost Cooperative Marketing Assoc.	Howard Selman	150 E. Houston	Sulphur Springs	TX	75482	(409) 830-8182
J.H. Strain & Sons Inc. #1 Crusher	Joe Payne		Tyler	TX	79563	(915) 668-1227
John Stuart Sitework	Ricky Beach					(210) 651-4646

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Specifications

TxDOT Specifications for furnishing and placing compost and for the use of shredded brush as erosion and sedimentation control.

- ◆ Furnishing and Placing Compost, Item 1009
- ◆ Shredded Brush as Erosion and Sedimentation Control, Item 5080

1995 Metric

**SPECIAL SPECIFICATION
ITEM 1009
FURNISHING AND PLACING COMPOST**

1. Description. This Item shall govern for the furnishing and placing of approved compost material to the depths and area shown on the plans or as directed by the Engineer.

2. Materials.

(1) General. The compost material shall be an organic substance produced by the aerobic (biological) decomposition of organic matter. The compost material shall not contain any visible admixture of refuse and other physical contaminants nor any material toxic to plant growth. Composed matter may include, but are not limited to, leaves and yard trimmings, biosolids, food scraps, food processing residues, manure and/or other agricultural residuals, forest residues and bark, and soiled and/or unrecyclable paper. The use of mixed municipal solid waste compost or Class B Biosolids (as defined in 40 CFR part 503) will not be allowed.

Compost materials furnished shall meet all applicable Federal (40 CFR Part 503 Standards for Class A Biosolids) and Texas Natural Resources Conservation Commission (TNRCC) health and safety regulations (TAC Chapter 332). All compost material supplied shall be processed to meet the time and temperature standards in TAC Chapter 332 Subchapter B Part 23 to control noxious weeds, and the physical requirements shown in Table 1.

TABLE 1 PHYSICAL REQUIREMENTS

Compost Manufactured Topsoil	Erosion Control Compost	General Use Compost
Organic Matter Content: 30% (dry mass) as determined by loss on ignition (ASTM D-5268 @ 440 C)	Organic Matter Content: 40-60% (dry mass) as determined by loss on ignition (ASTM D-5268 @ 440 C)	Organic Matter Content: 40-60% (dry mass) as determined by loss on ignition (ASTM D-5268 @ 440 C)
Particle Size: 100% passing 25mm	Particle Size: 100% passing 76mm <70% passing 50mm	Particle Size: 100% passing 19mm <70% passing 850mm
Soluble Salts: 4.0 max mmhos/cm as determined by "Method of Test for of Soils Materials" (Tex-129-E)	Soluble Salts: 4.0 max mmhos/cm as determined by "Method of Test for of Soils Materials" (Tex-129-E)	Soluble Salts: 4.0 max mmhos/cm as determined by "Method of Test for of Soils Materials" (Tex-129-E)
Stability: Finished pH: 5.5-8.5	Stability: Finished pH: 5.5-8.5	Stability: Finished pH: 5.5-8.5

- (2) Maturity Testing. Compost shall be tested and must be classified as “finished” according to the Solvita Compost Maturity Test or an approved equal. The Solvita Compost Maturity Test is available from:

Woods End Research Laboratory Inc.
 Box 297
 Mt. Vernon, Maine 04352
 1(800)451-0337
 E-mail: Info@woodsend.org
 or approved equal.

Prior to delivery of compost, the Contractor shall supply for TxDOT’s use one unused set of compost maturity test kits, containing six (6) tests for every 400 cubic meters of compost supplied.

- (3) Documentation. Prior to delivery, the Contractor shall provide the following:
- (a) a certification statement verifying that the compost contains a minimum of 65% by volume of recycled materials;
 - (b) a list of the feedstock by percentage in the final compost product;
 - (c) a certification statement verifying that the compost meets federal and state health and safety regulations;
 - (d) a certification statement verifying that the compost meets time and temperature requirements; and
 - (e) a copy of the lab analysis and certification statement verifying that the compost meets the physical requirements described in Table 1. The analysis shall be less than three (3) months old.
3. Construction Methods. After the designated areas have been completed to the lines, grades, and cross sections shown on the plans and as provided for in other items to the contract, compost of the type specified shall be placed in accordance with the requirements hereinafter described. Any stockpile areas shall be well drained, and shall be left in a neat and presentable condition upon completion of the removal of the materials. Where rolling is specified, the roller shall be a light corrugated drum roller of the type approved by the Engineer.

Compost shall be loose and friable and not dusty at the time of application. Compost may be required to be brought to an acceptable moisture content, as directed by the Engineer. No compost materials shall be placed within 30 meters of any source of surface water or drinking water supply.

- (1) Compost Manufactured Topsoil. Compost manufactured topsoil shall consist of soil constituents amended with 5 to 30 percent compost, measured by volume, as shown on the plans. Any trash, stumps, roots, weeds, or other objectionable materials in the soil shall be removed and disposed of, as approved by the Engineer, prior to beginning the mixing process.
- (a) Blended On-Site. Compost shall be spread in a uniform layer over the previously prepared subgrade area and thoroughly incorporated into the soil materials, to the depths shown on the plans, by rototilling, harrowing, or other suitable methods. After the topsoil has been produced and shaped, it shall be sprinkled and rolled as directed by the Engineer.
- (b) Pre-Blended. Topsoil manufactured from sources outside the right of way shall be produced in accordance with the requirements for Blended On-Site topsoil as specified in Section 3.(1)(a), and spread over the prepared subgrade so as to form a uniform layer of loose material of the thickness shown on the plans. After the topsoil has been placed, it shall be raked carefully to remove all objectionable materials and to yield a consistent grade, and then sprinkled and rolled as directed by the Engineer.
- (2) Erosion Control Mulch. Composted mulch shall be spread evenly over the previously prepared subgrade or slopes so as to form a uniform layer of loose material of the thickness shown on the plans. Erosion Control Compost shall not be placed on any slope having a slope ratio steeper than 1:2. After the compost has been placed, it shall be sprinkled and rolled as directed by the Engineer.
- (3) General Use Compost. General use compost shall be applied as a top dressing by placing the material evenly upon established areas of turf, grass, or other ground cover growth to the depth specified on the plans or as directed by the Engineer. Compost applications shall not bury or kill existing vegetation. All stems, roots, or other debris larger than 50 millimeters diameter shall be removed from the ground's surface.
4. Measurement. "Compost Manufactured Topsoil (Blended On-Site)," "Compost Manufactured Topsoil (Pre-Blended)," "Erosion Control Mulch" and "General Use Compost" will be measured by one of the following methods as shown on the plans.

When Class 1 measurement is specified, this Item will be measured by the 1-kilometer, or portion of, as measured along the baseline of each roadbed.

When Class 2 measurement is specified, this Item will be measured by the square meter complete in place.

When Class 3 measurement is specified, this Item will be measured by the cubic meter in vehicles at the point of delivery.

When Class 4 measurement is specified, this Item will be measured in the stockpile and the volume computed in cubic meters by the method of average end areas.

When Class 5 measurement is specified, this Item will be measured in its original Position at the source and the volume computed in cubic meters by the method of average end areas.

5. Payment. The work performed and materials furnished in accordance with this Item and measured as provided for under "Measurement" will be paid for at the unit price bid for "Compost Manufactured Topsoil (Blended On-Site)," "Compost Manufactured Topsoil (Pre-Blended)," "Erosion Control Mulch" or "General Use Compost" for the depth specified. This price shall be full compensation for securing any necessary source(s) and any royalty involved; for furnishing all materials, for all excavation, loading, hauling, stockpiling, placing, rototilling, harrowing, and raking; and for furnishing all labor, tools, equipment and incidentals necessary to complete the work.

"Rolling" and "Sprinkling" will not be paid for directly, but shall be considered subsidiary to this Item, unless otherwise shown on the plans.

"Seeding," if used and called for on the plans, shall be measured and paid for in accordance with Item 164, "Seeding for Erosion Control."

SPECIAL SPECIFICATION
ITEM 5080
SHREDDED BRUSH FOR EROSION AND SEDIMENTATION CONTROL

1. Description. This Item shall govern for furnishing and placing of shredded brush for erosion control as shown on the plans and as approved by the Engineer.

2. Material.

- (1) Shredded Brush. Shredded brush shall consist of loose organic material of shredded tree clippings or other wood material to insure adequate protection of the soil. Shredded material shall be free of excess amounts of leaves and large sticks which would prevent proper dressing of the surface. The fiber length of the shredded material shall be 50 to 76 millimeters.

Shredded brush shall be free of harmful chemicals, noxious weeds, clay, litter or other foreign matter that would promote early compaction, matting or deterioration of the shredded brush.

All tree clippings and other acceptable wood material removed from the right of way as part of the project, shall be shredded for use on the project. In the event shredded material from the right of way does not generate sufficient quantity to complete the requirements shown on the plans, then shredded brush shall be provided from other sources as approved by the Engineer.

All fresh shredding shall be stockpiled for a minimum of three (3) months prior to use on the project or shall be treated by blending with ammonium nitrate "nitrogen" at a rate of six (6) kilograms of nitrogen per megagram of shredded brush or tree clippings material. Stockpiles of said material shall be kept in a dry condition, well drained, until applied and shall not be molded or rotted.

With the Engineer's approval onsite shredding is permitted.

All shredded brush or tree clippings shall be tackified to prevent water and wind erosion.

- (2) Tacking Agent. Tackifier agent for shredded brush or tree clippings shall be Hydrophilic Colloid, RMB-Plus, for sand material and Granular Polyacrylamide, TERRA TACK™ SC, for clay material unless otherwise shown on the plans. Other biodegradable tacking agents may be used when approved by the Engineer.

3. Equipment. All equipment shall be approved by the Engineer prior to use and shall be able to efficiently produce the desired result. The equipment used for shredding will be at the Contractor's option.

4. Construction Methods. After the designed areas have been seeded and as provided for in other items of this contract, the shredded brush and or the tree

clippings shall be spread uniformly over the area indicated on plans or as designed by the Engineer at the rate of approximately 0.9 to 1.3 kilograms per square meter unless otherwise shown on the plans to form a depth as shown on the plans.

When used, a hydromulch machine approved by the Engineer shall be equipped to inject a tacking agent into the shredded brush or the tree clippings uniformly as it leaves the equipment at a rate of 6.75 kilograms per hectare for TERRA TACK™ SC and 56 kilograms per hectare for the RMB-Plus.

3. Measurement. This Item will be measured by the square meter or hectare, complete in place.
4. Payment. The work performed and materials furnished in accordance with this Item and measured as provided under “Measurement”, will be paid for at the unit price bid for “Shredded Brush” of the depth specified on the plans. This price shall be full compensation for furnishing all materials, equipment and for performing all operations necessary to complete the work.