

ERM NC, Inc.

8000 Corporate Center Dr.  
Suite 200  
Charlotte, NC 28226  
(704) 541-8345  
(704) 541-8416 (fax)

November 14, 2012

NCDENR – Division of Waste Management  
1646 Mail Service Center  
Raleigh, North Carolina 27699-1646



Attention: Mr. Geof Little

Reference: Response to Comments dated November 9, 2012  
Application for Permit  
Proposed Green Recycling Solutions LLC – C&D Recycling / Recovery  
Facility - Maysville, Jones County, North Carolina

Mr. Little:

On behalf of Green Recycling Solutions LLC, ERM NC, Inc. (ERM) is submitting the attached information to address comments received from Division of Waste Management dated November 9 2012 for the referenced project. For simplicity, each comment is presented below with appropriate responses for completeness.

***Comment 1. Please provide a copy of the deed for the property.***

The real property for the Green Recycling Solutions LLC C&D Recycling / Recovery Facility is owned by Green Co Land, LLC with a lease agreement executed with Green Recycling Solutions LLC. Attached with this letter are the following:

- A copy of the executed lease agreement between Green Co Land, LLC and Green Recycling Solutions LLC
- A copy of the executed deed between Green Co Land, LLC and Woodrow and Joyce Lassiter
- A copy of the survey plat referenced in the executed deed between Green Co Land, LLC and Woodrow and Joyce Lassiter

***Comment 2. Operation Plan Section 2.6.4 [p18] [Note typo: 2 Sections are labeled 2.6.4]: Should you choose to shred shingles, we will require a certification and chain of custody process that guarantees each load of shredded shingles to be free of asbestos. From reports we receive, most asphalt companies prefer to receive intact shingles. Also, please edit the text in Section 2.6.4 p18 in the concrete and shingle recovery operations in the referenced section to include a reference to the asbestos screening procedure contained in Section 2.4 [p11].***

Mr. Geof Little  
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Page 2

A revised Operations Plan is attached. In summary, Section numbering has been corrected to omit the double labeling of Section 2.6.4 and the additional information concerning asphalt shingles is included on the revised page 18 that reads:

- Asphalt shingles will be received at the facility in accordance with “Section 2.4 - Debris Screening Program” in this Operations Plan , for identification of potential asbestos containing shingles. Asphalt shingles will be segregated on the sort line. Shingles will be stockpiled in the stockpile area for transportation to a permitted asphalt shingle shredding facility.

***Comment 3. What are the contingency plans for back-up in case of equipment failure?***

The Green Recycling Solutions LLC, C&D Recycling / Recovery Facility has been designed to allow for periods of equipment shut down and maintenance. The tipping floor for receiving waste is designed with a capacity of 2,025 Cubic Yards or 1,215 Tons of C&D waste. This area does not impede on equipment or pedestrian ingress and egress paths. In the event of equipment failure or shut down, the recovery of larger bulky items will continue on the tipping floor recovering approximately 38% of the incoming waste. These items would include concrete, drywall, wood waste, cardboard and larger metal items.

A table is included on the following page presenting the days of storage available based on varying rates of waste flow into the facility. Beginning at an anticipated low of 30 tons per day, the tipping floor can accommodate up to 65 days or almost 11 weeks of incoming waste. At an anticipated peak waste flow of 500 tons per day, the tipping floor can accommodate up to 4 days of incoming waste.

Maintenance schedules for facility equipment will be executed in accordance with manufacturer supplied maintenance schedules. Routine maintenance and minor repair efforts shall be executed throughout the operational day. Major maintenance and repair items shall be executed on the following schedule when possible to keep the facility open and operational:

- Monday – Saturday, After 7:00pm
- Sundays
- Holidays

## Green Recycling Solutions - Tipping Floor Capacity Periods of Maintenance & Shut Down

C&D Unit Weight Loose 0.6 tons/CY  
Volume Incoming C&D Material 1.67 CY/ton

### Tipping Floor Operational Area Available, No Traffic Impacts

Indoor storage available 135 ft in length  
45 ft in width  
9 ft in average height

Indoor storage available (cubic feet) 54,675 CF  
Indoor storage available (cubic yards) 2,025 CY

Daily Waste Flow (Tons)	% Recovered on Tipping Floor	Waste Remaining on Floor (Tons)	Daily Volume (CY)	Storage Days Available
30	38.00%	19	31	65
45	38.00%	28	47	43
60	38.00%	37	62	33
75	38.00%	47	78	26
90	38.00%	56	93	22
105	38.00%	65	109	19
125	38.00%	78	129	16
150	38.00%	93	155	13
175	38.00%	109	181	11
200	38.00%	124	207	10
225	38.00%	140	233	9
250	38.00%	155	259	8
275	38.00%	171	285	7
300	38.00%	186	311	7
325	38.00%	202	337	6
350	38.00%	217	362	6
375	38.00%	233	388	5
400	38.00%	248	414	5
425	38.00%	264	440	5
450	38.00%	279	466	4
475	38.00%	295	492	4
500	38.00%	310	518	4

*Large bulky items such as concrete, drywall, wood, large metal and cardboard would still be recovered from tipping floor in the event of equipment shut down.*

Mr. Geof Little  
November 14, 2012  
Page 3

If you should have any questions or require additional information concerning this Application for Permit please contact me at your convenience.

Sincerely,

*ERM NC, Inc.*

A handwritten signature in cursive script, appearing to read "D. Wasiele".

David W. Wasiele, P.E.  
Senior Engineer  
NC Registration #20770

cc: Mr. Geof Little - Division of Waste Management (1)  
Mr. James Maides - Green Recycling Solutions LLC (1)

Attch: Lease Agreement  
Property Deed  
Property Plat  
Revised Operations Plan

*Lease Agreement Between  
Green Co Land, LLC  
And  
Green Recycling Solutions LLC*

## LEASE AGREEMENT

This Lease is made this 12<sup>th</sup> day of November, 2012, by and between Green Co Land, LLC, (hereinafter "Landlord") and Green Recycling Solutions, LLC (hereinafter "Tenant"). In consideration for the mutual promises and covenants contained herein, and for other good and valuable consideration, the parties hereby agree as follows:

1. The Landlord leases to the Tenant, and the Tenant rents from the Landlord the following described parcel of property (hereinafter "Property"):

Being a portion of that property as described in Deed Book 351, Page 256 of the Jones County Register of Deeds, and more defined as Tax Parcel ID No. 5423-73-3205-00, to encompass 26.8 acres, more or less.

2. The term of the Lease shall be for thirty (30) years commencing when Tenant begins recycling and landfill business activities on the Property.

3. The Tenant shall pay to Landlord as rent \$36,000 per year in equal monthly installments of \$3,000 per month, with payment due by the 10<sup>th</sup> day of each month.

4. This Lease and Tenant's interest hereunder are and shall be subordinate, junior and inferior to any and all mortgages, liens or encumbrances now or hereafter placed on the Property by Landlord, all advances made under any such mortgages, liens or encumbrances (including, but not limited to, future advances), the interest payable on such mortgages, liens or encumbrances and any and all renewals, extensions or modifications of such mortgages, liens or encumbrances.

5. Tenant shall use and occupy the Property only as a recycling center and land fill subject at all times to the approval of the Landlord.

6. The Tenant shall not make any further alterations, additions or improvements to the Property, other than necessary for the business of a recycling center and landfill, without the prior written consent of the Landlord.

7. The Landlord, at his own expense, shall furnish the following utilities or amenities for the benefit of the Tenant: all taxes and fees on the Property.

8. The Tenant, at his own expense, shall furnish the following: electricity, water, and any other utilities necessary for the operation of Tenant's business activities.

9. The Tenant shall purchase at his own expense public liability insurance in the amount of \$1,000,000 as well as fire and hazard insurance in the amount of \$1,000,000 for the premises and

shall provide satisfactory evidence thereof to the Landlord and shall continue same in force and effect throughout the Lease term hereof.

10. The Tenant shall not permit or commit waste to the Property, except for the purposes of conducting Tenant's business of recycling and landfill activities on the Property as acknowledged by the Landlord.

11. In the event the Property is destroyed or rendered wholly uninhabitable by hurricane, fire, storm, earthquake, or other casualty not caused by the negligence of Tenant, this Lease shall terminate from such time except for the purpose of enforcing rights that may have then accrued hereunder. The rental provided for herein shall then be accounted for by and between Landlord and Tenant up to the time of such injury or destruction of the Property, Tenant paying rentals up to such date and Landlord refunding rentals collected beyond such date. Should a portion of the Property thereby be rendered unusable, the Landlord shall have the option of either repairing such injured or damaged portion or terminating this Lease. In the event that Landlord exercises its right to repair such unusable portion, the rental shall abate in the proportion that the injured parts bears to the whole Property, and such part so injured shall be restored by Landlord as speedily as practicable, after which the full rent shall recommence and the Lease continue according to its terms.

12. Landlord and Landlord's agents shall have the right at all reasonable times during the term of this Lease and any renewal thereof to enter the Property for the purpose of inspecting the Property and all buildings and improvements thereon. And for the purposes of making any repairs, additions or alterations as may be deemed appropriate by Landlord for the preservation of the Property or the buildings.

13. The Tenant shall comply with all rules, regulations, ordinances codes and laws of all governmental authorities having jurisdiction over the Property.

14. The Tenant shall not sublet or assign the Property nor allow any other person or business to use or occupy the Property without the prior written consent of the Landlord, which consent may not be unreasonably withheld.

15. Tenant and Landlord may extend the terms of this Lease upon written notification of either party within one (1) year prior to the expiration of the Lease terms.

16. Upon default in any term or condition of this Lease, the Landlord shall have the right to undertake any or all other remedies permitted by Law.

17. This Lease shall be binding upon, and inure to the benefit of, the parties, their heirs, successors, and assigns.

Signed this the 12<sup>th</sup> day of November, 2012.

James E. Maides  
Green Co Land, LLC  
Landlord *Managing member*

James E. Maides  
Green Recycling Solutions, LLC  
Tenant *Managing member*

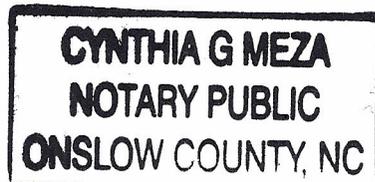
NORTH CAROLINA  
Onslow COUNTY

I, Cynthia G. Meza a Notary Public in and for the County and State aforesaid, do hereby certify that James E. Maides personally appeared before me this day and acknowledged he is the Managing Member of Green Co Land, LLC, a North Carolina limited liability company, and that by authority duly given and as the act of said entity, he signed the foregoing instrument in its name on its behalf as its act and deed..

WITNESS my hand and notarial seal, this the 12 day of November, 2012.

Cynthia G. Meza  
Notary Public

My Commission Expires:  
12-19-2015



NORTH CAROLINA  
Onslow COUNTY

I, Cynthia G. Meza a Notary Public in and for the County and State aforesaid, do hereby certify that James E. Maides personally appeared before me this day and acknowledged he is the Managing Member of Green Recycling Solutions, LLC, a North Carolina limited liability company, and that by authority duly given and as the act of said entity, he signed the foregoing instrument in its name on its behalf as its act and deed..

WITNESS my hand and notarial seal, this the 12 day of November, 2012.

Cynthia G. Meza  
Notary Public

My Commission Expires:  
12-19-2015



## *Property Deed*



Image ID: 00000097427 Type: DEED  
Recorded: 07/29/2011 at 01:36:41 PM  
Fee Amt: \$1,112.00 Page 1 of 2  
Revenue Tax: \$1,090.00  
Jones, NC  
Susan S. Gray Register of Deeds

BK **351** PG **256**

THIS CERTIFIES THAT THERE ARE NO DELINQUENT  
AD VALOREM TAXES, WHICH THE JONES COUNTY TAX  
COLLECTOR IS CHARGED WITH COLLECTING THAT  
ARE A LIEN ON PARCEL IDENTIFIER NUMBER:

THIS IS NOT CERTIFICATION THAT THE PIN MATCHES  
THE DEED DESCRIPTION

7-29-11 W. J. Jordeford  
DATE TAX COLLECTOR

Excise Tax \$1090.00

Recording Time, Book and Page

Tax Lot No. 5423-82-4400-00 Parcel Identifier No. Tracts 1 & 2 split from 5423-54-4325-00 and Tracts 3 & 4 split from 5423-62-9542-00 and ~~5423-82-4400-00~~

Verified by \_\_\_\_\_ County on the \_\_\_\_\_ day of \_\_\_\_\_, 20  
by \_\_\_\_\_

Mail after recording to Law Office of Douglas M. Strout, 300 Western Blvd., Jacksonville, NC 28546

This instrument was prepared by DOUGLAS M. STROUT

Brief Description for the index

Tracts 1 - 4 PC C Slide 37 Page 2

### NORTH CAROLINA GENERAL WARRANTY DEED

THIS DEED made July 27, 2011, by and between

GRANTOR

GRANTEE

WOODROW F. LASSITTER  
and wife,  
JOYCE P. LASSITTER  
6800 New Bern Highway  
Maysville, NC 28555

GREEN CO LAND, LLC,  
a North Carolina limited liability company  
166 Center Street  
Jacksonville, NC 28546

Enter in appropriate block for each party: name, address, and, if appropriate, character of entity, e.g., corporation or partnership.

The designation Grantor and Grantee as used herein shall include said parties, their heirs, successors, and assigns, and shall include singular, plural, masculine, feminine or neuter as required by context.

WITNESSETH, that the Grantor, for a valuable consideration paid by the Grantee, the receipt of which is hereby acknowledged, has and by these presents does grant, bargain, sell and convey unto the Grantee in fee simple, all that certain lot or parcel of land situated in the City of \_\_\_\_\_, WHITE OAK Township, JONES County, North Carolina and more particularly described as follows:

Being all of the tract of land as described below and not being the Grantor(s)' primary residence:

BEING all of Tracts 1, 2, 3 and 4 as shown on a plat entitled, "Boundary and Division Map TRACTS ON U.S. HWY. 17 AND WHITE OAK RIVER ROAD, White Oak Twp., Jones County, North Carolina" prepared for Green Co Land, LLC on June 2, 2011 by Parker & Associates, Inc. and recorded in Plat Cabinet C, Slide 37, Page 2, Jones County Registry.

Together with the 60 Foot Access easements as shown from "C" to "F" to "D" to Tract 1 and from "C" to "F" to "E" to Tract 4 as shown on the plat recorded in Plat Cabinet C, Slide 37, Page 2, Jones County Registry.

Subject to a 60 access easement leading from Highway 17 across Tract 3 as shown on the plat recorded in Plat Cabinet C, Slide 37, Page 2, Jones County Registry.

The property hereinabove described was acquired by Grantor by instrument recorded in Book 258, Page 586, Page and Book 180, Page 3, and Book 187, Page 277.  
A map showing the above described property is recorded in Plat Cabinet C, Slide 37 Page 2.

TO HAVE AND TO HOLD the aforesaid lot or parcel of land and all privileges and appurtenances thereto belonging to the Grantee in fee simple.

And the Grantor covenants with the Grantee, that Grantor is seized of the premises in fee simple, has the right to convey the same in fee simple, that title is marketable and free and clear of all encumbrances, and that Grantor will warrant and defend the title against the lawful claims of all persons whomsoever except for the exceptions hereinafter stated.

Title to the property hereinabove described is subject to the following exceptions:

IN WITNESS WHEREOF, the Grantor has hereunto set his hand and seal, or if corporate, has caused this instrument to be signed in its corporate name by its duly authorized officers and its seal to be hereunto affixed by authority of its Board of Directors, the day and year first above written.

(Corporate Name)

Woodrow F. Lassitter (SEAL)  
WOODROW F. LASSITTER

By:



Image ID: 000000097428 Type: DEED Page 2 of 2

President

BK 351 PG 257

Joyce P. Lassitter (SEAL)  
JOYCE P. LASSITTER

ATTEST:

\_\_\_\_\_ (SEAL)

Secretary (Corporate Seal)

\_\_\_\_\_ (SEAL)

NORTH CAROLINA, ONSLOW County.



Jerril L. McNeal, the undersigned, a Notary Public of the County and State aforesaid, certify that **WOODROW F. LASSITTER and wife, JOYCE P. LASSITTER**, Grantors, personally appeared before me this day and acknowledged the execution of the foregoing instrument. Witness my hand and official stamp or seal, this **29<sup>th</sup>** day of **July**, 2011.

My commission expires: 3-23-2016 Jerril L. McNeal Notary Public

NORTH CAROLINA, JONES County.

SEAL-STAMP

I, the undersigned, a Notary Public of the County and State aforesaid, certify that personally came before me this day and acknowledged that he/she is Secretary of \_\_\_\_\_, a North Carolina corporation, and that by authority duly given and as the act of the corporation, the foregoing instrument was signed in its name by its President, sealed with its corporate seal and attested by him/her as its Secretary. Witness my hand and official stamp or seal, this \_\_\_/\_\_\_/\_\_\_.

My commission expires: \_\_\_/\_\_\_/\_\_\_ \_\_\_\_\_ Notary Public

The foregoing Certificate(s) of

is/are certified to be correct. This instrument and this certificate are duly registered at the date and time and in the Book and Page shown on the first page hereof.

REGISTER OF DEEDS FOR \_\_\_\_\_ COUNTY

By \_\_\_\_\_ Deputy/Assistant-Register of Deeds.

## *Property Plat*

Legend:

- Ac. - Acreage
- AG - Above Ground
- BG - Below Ground
- CMF - Concrete Monument Found
- CP - Computed Point
- D.B. - Dead Book
- Existing Ditch
- GL - Ground Level
- IPF - Iron Pipe Found
- ISF - Iron Stake Found
- ISS - Iron Stake Set
- M.B. - Map Book
- Pg. - Page
- R/W - Right-of-way

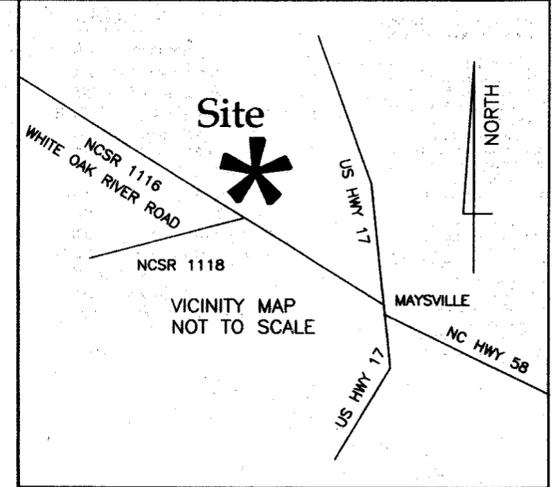
I, Edwin N. Foley, Professional Land Surveyor No. 2884, certify to one or more of the following as indicated:

- A. That the survey creates a subdivision of land within the area of a county or municipality that has an ordinance that regulates parcels of land;
- B. That the survey is located in a portion of a county or municipality that is unregulated as to an ordinance that regulates parcels of land;
- C. Any one of the following:
  1. That the survey is of an existing parcel or parcels of land and does not create a new street or change an existing street.
  2. That the survey is of an existing building or other structure, or natural feature, such as a watercourse; or
  3. That the survey is a control survey.
- D. That the survey is of another category, such as the recombination of existing parcels, a court-ordered survey, or other exception to the definition of subdivision;
- E. That the information available to the surveyor is such that the surveyor is unable to make a determination to the best of the surveyor's professional ability as to provisions contained in (A) through (D) above.

*Edwin N. Foley*  
Edwin N. Foley, P.L.S., L-2884

"A"- "B"

BEARING	LENGTH
S43°36'41"W	5.67
S43°32'41"W	20.66
S11°20'27"W	19.58
S66°16'28"W	42.91
S72°01'02"W	37.84
S40°00'30"W	34.71
N87°08'33"W	31.84
N81°08'47"W	48.45
N87°18'09"W	33.68
N68°10'06"W	35.64
S20°06'26"E	58.61
S20°36'21"E	28.78
S47°08'07"E	41.46
S88°38'58"E	39.15
S21°21'41"E	35.32
S22°20'36"W	44.46
S47°54'07"W	21.88
S26°14'41"E	21.88
S21°38'01"W	24.86
S20°07'20"E	16.41
S17°28'24"W	67.87
S21°38'06"W	80.00
S20°28'23"W	26.64
S87°12'04"W	48.34
S82°39'11"W	63.34
S81°47'51"W	42.88
S83°08'47"W	43.81
S87°21'41"W	47.24
S88°22'37"W	30.86
N88°50'22"W	34.44
N87°18'09"W	39.58
N81°28'46"W	30.11
N10°54'12"W	40.80
N80°11'57"E	56.36
N04°47'16"E	51.47
N65°28'17"E	44.01
N65°34'08"E	35.76
N15°54'50"W	42.34
N26°09'19"W	52.73
N20°02'20"W	43.82
N88°12'27"W	35.11
N27°31'55"W	33.58
N06°33'42"W	34.44
N18°45'27"E	38.25
N85°10'27"E	48.34
N07°51'26"E	57.44
N45°54'01"E	24.36
N82°01'11"E	32.22
S86°24'34"E	30.45
S44°08'21"E	44.04
N47°20'08"E	24.18
N24°38'14"E	47.60
N18°24'58"W	32.53
N89°19'46"E	31.80



Vicinity Sketch  
Not to Scale

I, Edwin N. Foley, certify that this map was drawn under my supervision from an actual survey (Deed and Plat references as shown hereon), made under my supervision, completed on 06/12/11, that the average positional accuracy is 0.09', that the boundaries not surveyed are shown as broken lines drawn from sources noted, that this map was prepared in accordance with G.S. 47-30 as amended, this map was prepared for recording purposes.

Witness my original signature, license number and seal this 21<sup>st</sup> day of July AD 2011.



*Edwin N. Foley*  
Edwin N. Foley, P.L.S., L-2884  
NORTH CAROLINA.....JONES COUNTY

I, BRANDON J SUTTON  
Review Officer of Jones County, certify that the map or plat to which this certification is affixed meets all statutory requirements for recording.

*Brandon J Sutton*  
Review Officer 7/21/11  
Date

NORTH CAROLINA.....JONES COUNTY  
Presented for registration and recorded in this office in

Cabinet C Slide 37 Page 2

This 22<sup>nd</sup> Day of July 2011  
Susan S. Gray  
Gloria H. Thomas  
Register of Deeds

By JSW

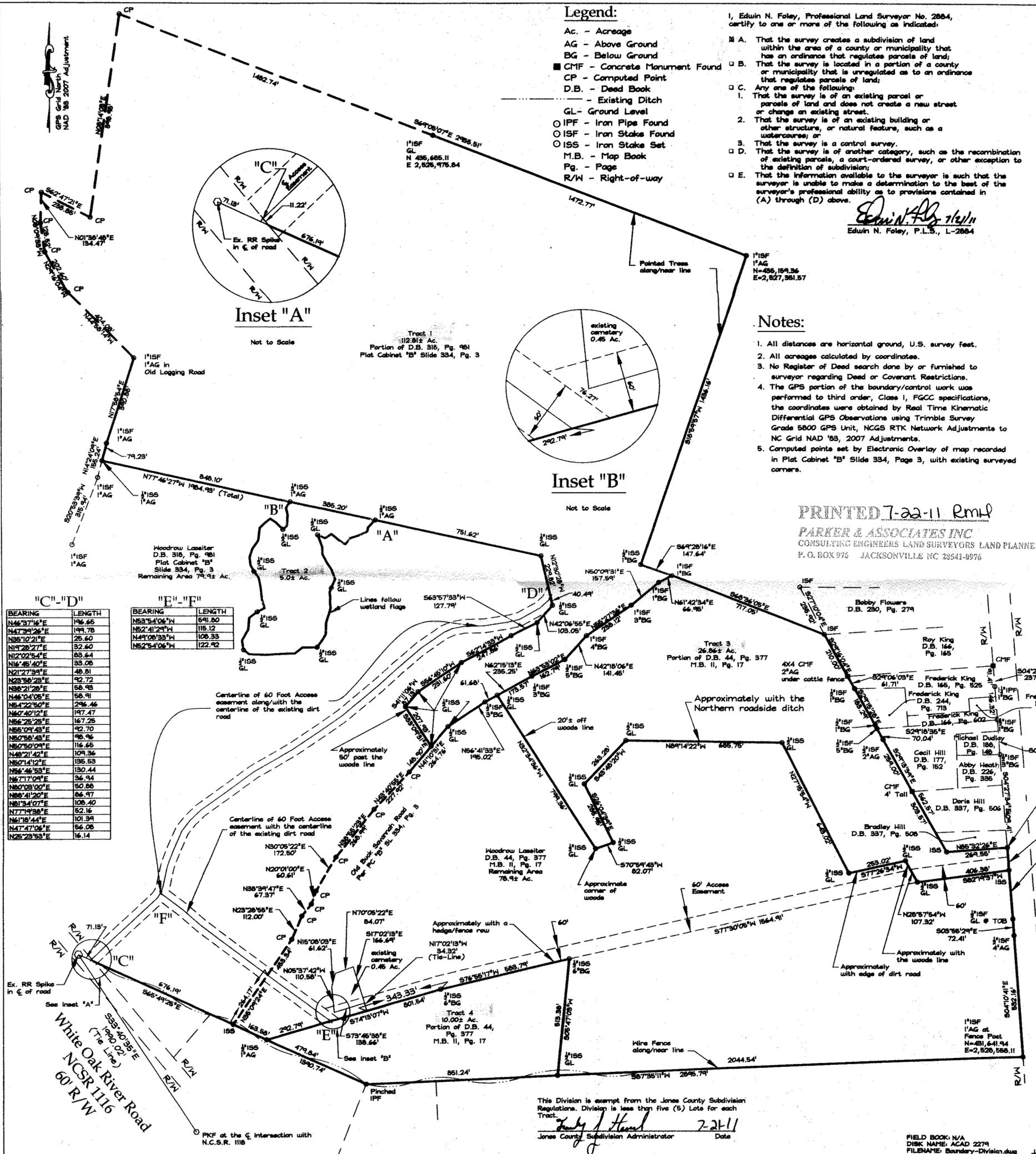
Boundary and Division Map

TRACTS ON U.S. HWY. 17 AND WHITE OAK RIVER ROAD  
White Oak Twp., Jones County, North Carolina

OWNER:  
**Green Co Land, LLC**  
166 Center Street  
Jacksonville, North Carolina 28546  
(910) 938-5900

DATE: 06/02/11  
SCALE: 1"=300'  
GRAPHIC SCALE: 1"=300'  
0 100 200 300 600 900 FEET

**Parker & Associates, Inc.**  
Consulting Engineers - Land Surveyors - Land Planners  
P.O. Box 976 - 28641-0976  
306 New Bridge Street - 28640  
Jacksonville, North Carolina  
Phone (910) 455-2414 - Fax (910) 455-3441  
Firm License Number: F-0108



"C"- "D"

BEARING	LENGTH
N46°37'16"E	196.65
N47°34'26"E	194.78
N85°10'21"E	26.60
N19°28'27"E	32.60
N12°02'54"E	88.64
N16°46'40"E	33.06
N21°27'34"E	48.81
N23°58'23"E	42.72
N30°21'28"E	58.78
N46°04'08"E	58.91
N54°22'50"E	296.46
N42°40'21"E	197.47
N66°25'28"E	167.25
N65°09'43"E	42.70
N60°58'48"E	98.96
N60°50'04"E	116.65
N48°21'42"E	104.36
N60°14'12"E	136.53
N56°46'53"E	130.44
N67°17'04"E	36.94
N80°08'00"E	50.88
N88°41'20"E	86.57
N81°34'07"E	108.40
N77°19'38"E	52.16
N41°18'44"E	101.39
N47°47'06"E	56.08
N25°23'53"E	16.14

"E"- "F"

BEARING	LENGTH
N53°54'06"W	541.80
N52°41'21"W	115.12
N49°08'33"W	106.33
N52°54'06"W	122.42

This Division is exempt from the Jones County Subdivision Regulations. Division is less than five (5) Lots for each Tract.  
*Andy J. Howard*  
Jones County Subdivision Administrator  
Date 7-21-11

## *Revised Operations Plan*

# OPERATIONS PLAN – GREEN RECYCLING SOLUTIONS LLC

## MAYSVILLE, NORTH CAROLINA

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## **1.0 GENERAL FACILITY OPERATIONS**

### **1.1 OVERVIEW**

This Operations Plan was prepared for the operations of the proposed Green Recycling Solutions LLC (“Green Recycling”) construction and demolition debris (C&D) materials recovery and recycling facility (“Facility”) located at 11710 Highway 17 in Maysville, North Carolina. The Facility will be located adjacent to a proposed C&D Landfill that will also be owned and operated by Green Recycling. A separate Operations Plan for the C&D Landfill portion of the Facility shall be referenced for specific landfill related items. A site location plan is included as Figure 1-1 on the following page.

This Operations Plan may be updated by Facility management and authorized personnel as dictated by changing site conditions or typical operations. A copy of this Operations Plan will be maintained at the Facility and will be available for review, inspection and training at all times.

### **1.2 CONTACT**

All correspondence and questions concerning the operation of the Facility should be directed to the contact listed below. For fire or police emergencies, dial 911.

Green Recycling Solutions LLC (Operator)  
11710 Highway 17  
Maysville, North Carolina 28555  
Phone: (910) 938-5900  
Contact: James Maides  
Email: JAMESMAIDES@CSBENC.com

### **1.3 FACILITY OPERATING HOURS**

Proposed hours of operation will be 7:00 AM to 6:00 PM Monday through Friday and Saturday 7:00 AM to 6:00 PM, excluding official holidays, which shall include New Year’s Day, Independence Day, Thanksgiving Day, and Christmas Day, unless otherwise mutually agreed to from time to time between Green Recycling, the Town of Maysville, and the DWM regional office. The facility will typically be closed for normal operation on Sundays. Maintenance and other activities may be performed on any day or time. In the event of disaster or other emergency situations, the supervisor may request approval from the DWM regional office to allow additional temporary operating hours.

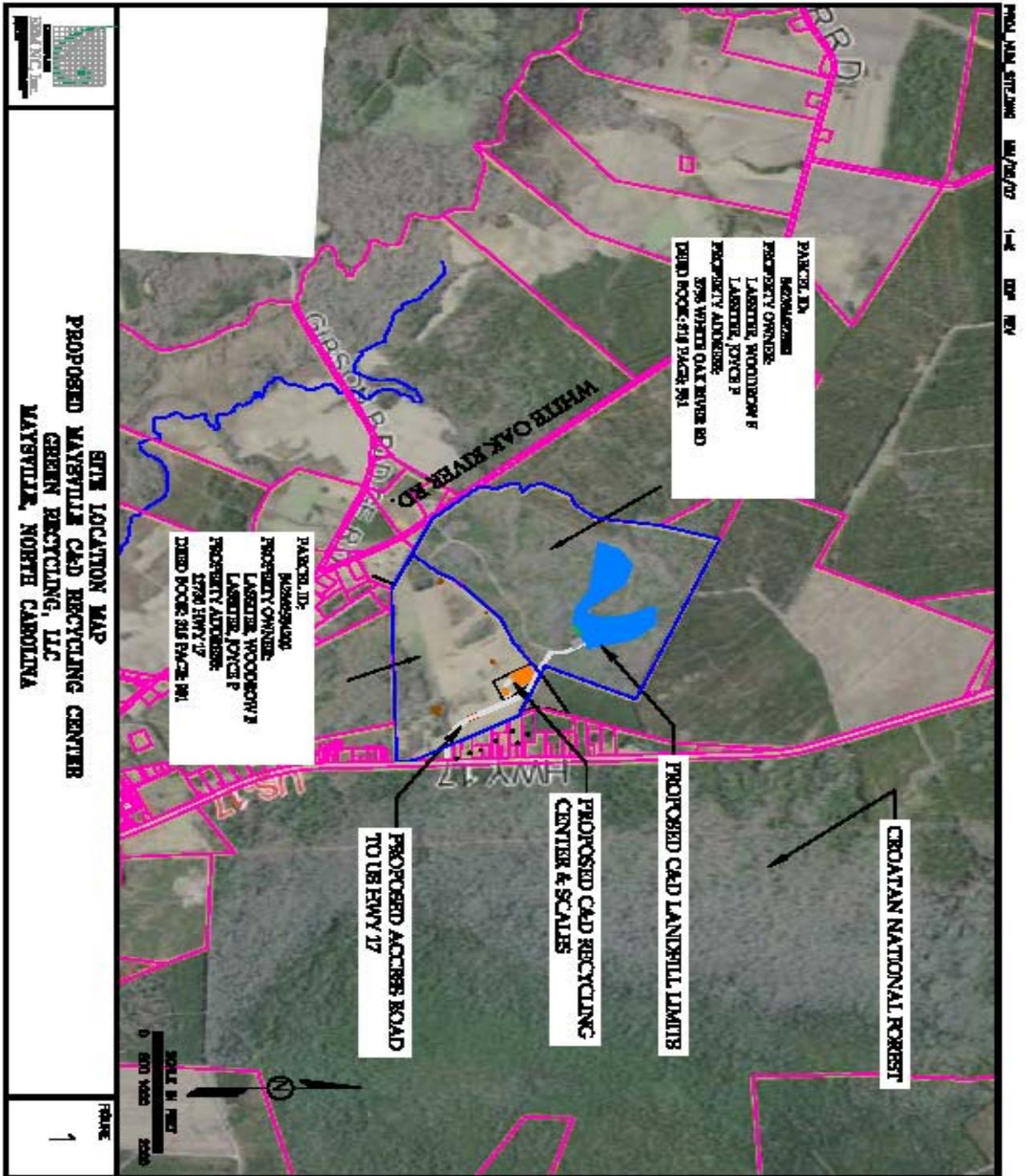


Figure 1-1 – Site Location Plan

## 1.4 *ACCESS CONTROL*

Access to process and storage areas of the facility will be controlled by a combination of fences, gates, and natural barriers and strictly enforced operating hours. An attendant will be on duty at all times when the facility is open for public use to enforce access restrictions.

### 1.4.1 *Physical Restraints*

The site will be accessed by an entrance from US Highway 17. Waste will be screened at the scales by the scale house operator. All waste will have been weighed prior to being processed on the site. The entrance will have a gate which will be securely locked during non-operating hours.

### 1.4.2 *Security*

Haulers will be stopped at the scale house for scanning and documentation of incoming loads. Drivers will be required to identify the contents of the load and origin. Incoming loads on closed trailers or trucks will be inspected upon unloading at the tipping floor. Unacceptable materials will not be permitted. Deliveries of unacceptable materials will be directed to leave the site. Frequent inspections of gates and fences will be performed by facility personnel. Evidence of trespassing, vandalism, or illegal activities will be reported to the Owner. The facility will be securely locked during non-operating hours.

## 1.5 *SIGNAGE*

Prominent signage containing the information required by the North Carolina Division of Waste Management (DWM) and Health Hazards Control Unit will be placed at the main facility entrance. The signs will provide information as follows;

- Operating hours,
- Emergency contact information,
- Permit number,
- Operating procedures for customers and/or visitors,
- List of acceptable debris,
- List of unacceptable wastes, and
- Traffic directional signs for vehicles which are tipping and are picking up recycled products.

Service and maintenance roads for use by operations personnel will be clearly marked and barriers (e.g., traffic cones, barrels, etc.) will be provided as required.

## 1.6 *PERSONNEL REQUIREMENTS*

The anticipated personnel requirements for operation and maintenance of the facility are listed as follows:

1. General Manager & Office Staff (3): Overall management of the Facility
2. Scale House Attendant (1): Receiving and weight for incoming loads, identification of load content and screening for prohibited waste
3. Operators (2): Management of tipping floor and recycling areas and screening for prohibited waste
4. Commercial Drivers (1): Transfer of processed C&D material (subject to change in response to actual volume of debris received)
5. Labor (12): General labor and operational staff around the site

One member of the supervisory staff, trained and certified in facility operations, will be on site at all times during all operating hours of the facility in accordance with G.S. 130 A-309.25 of the North Carolina Code. Each facility employee will participate in an annual training course (led by supervisory staff). As part of this training, personnel learn to recognize loads which may contain prohibited wastes. All personnel will receive a minimum of two-hour asbestos awareness training. A minimum number of personnel will be required to operate the facility efficiently. A scale house attendant, laborers to work on the tipping floor and processing line(s), equipment operators, and a site supervisor are anticipated to be employed for the daily operation of the facility.

## 1.7 *HEALTH AND SAFETY*

All aspects of the operation of the facility were developed with the health and safety of operations staff, customers, and neighbors in mind. Prior to commencement of operation of the facility, a member of the operating staff will be designated as the site safety officer. This individual, together with the facility's management will modify the site safety and emergency response program to remain consistent with National Solid Waste Management Association and Occupational Safety and Health Administration (OSHA) guidance. All personnel will receive a minimum of two-hour asbestos awareness training.

Processing equipment will be appointed with protection from moving parts, pinching, electrical connections, and sharp objects. Automated and/or manual emergency shut-off controls will also be provided. Safety devices for mobile equipment will include equipment rollover protective cabs, seat belts, audible reverse warning devices, hard hats, safety shoes, and first aid kits. Equipment exhaust should be vented at an appropriate height in excess of the breathing zone. Other personal protective equipment (gloves, hearing protection,

coveralls, or boots) will be required based on an employee's duties. Management and lead personnel will be encouraged to complete the American Red Cross Basic First Aid course to aid on site in case of an emergency. All personnel should be familiar with the equipment and duties of their position such that they will be able to identify potential hazards.

Each facility employee will participate in monthly safety meetings with topics relevant to worker safety at the Facility. Each facility employee will participate in an annual training course in health and safety (led by supervisory staff). All training shall be documented and attested to by signatures of the trainer and trainee.

Each employee of Green Recycling will be required to submit to pre-hiring drug and alcohol tests by a third party testing company.

The following are some general requirements for the health and safety of workers at the Facility.

### **1.7.1** *Personal Hygiene*

The following items are recommended as a minimum practice:

- Wash hands before eating, drinking, or smoking,
- Wear appropriate personal protective equipment,
- Wash, disinfect, and bandage any cuts, no matter how small, and
- Maintain closely trimmed fingernails.

### **1.7.2** *Personal Protective Equipment (PPE)*

Prior to the issuance of personal protective equipment (PPE) a job hazard analysis will be performed by a qualified industrial hygienist. PPE must be evaluated as to the level of protection necessary for particular operating conditions and then made available to facility employees. The list below includes PPE typically used and/or required in a solid waste management facility workplace.

- Safety shoes with steel toes
- Hearing protection in areas where exposure to high noise levels is expected
- Hard hat
- Gloves
- High-visibility vest and/or other clothing

Following use, PPE should be disposed of or adequately cleaned, dried, or readied for reuse.

### 1.7.3 *Mechanical Equipment Hazard Protection*

The loaders and other equipment should be operated with care and caution. All safety equipment such as horns, backup alarms, and lights shall be functional or taken out of service until repaired. A Lockout-Tagout program shall be used to identify equipment in need of or under repair and ensure that operation is “off-limits” prior to maintenance or repair. All operators shall be trained in the proper operation of equipment.

### 1.7.4 *Employee Health and Safety*

Review the following periodically with each employee:

- Consider safety first when planning and conducting activities,
- Post emergency contact phone numbers,
- Post route to nearest emergency medical facility,
- Post evacuation plan,
- Provide easy and visible access to the Right to Know materials, and
- Provide easy and visible access to the first aid kits and fire extinguishers.

### 1.7.5 *Physical Exposure*

Facility personnel may come in contact with fluids, solids, and airborne constituents found at the recycling center. Routine training should be conducted regarding the individual and collective materials used in the recycling process and their associated hazards. Training concerning safe work practices around these potential exposures should include use of PPE and proper disposal procedures. All personnel will receive a minimum of two-hour asbestos awareness training.

The tipping floor, sorting areas, and unloading areas must be maintained in a clean, sanitary condition.

## 1.8 *COMMUNICATIONS*

The scale house, office and sorting building have telephones in case of emergency and to conduct day-to-day business. The scale house and office will communicate with equipment operators and supervisors at the facility by radio or cell phone.

In an emergency the facility will make an announcement over the loud-speaker system and employees will be trained to congregate at a rally point. Emergency telephone numbers will be displayed in the scale house and office.

Fires and non-conforming waste incidents shall be reported to the Regional Waste Management Specialist within twenty-four hours followed by a written notification to be submitted within fifteen days.

## **1.9 UTILITIES**

Electrical power, water, and telephone will be provided at the scale house and office. Water will also be available at the tipping floor and processing equipment in the event that asbestos containing materials are identified. Restrooms will be provided at the site.

## **1.10 LITTER CONTROL**

The perimeter fence will act as a barrier to keep litter contained within the site. Facility operators will inspect materials entering the facility. If unacceptable materials are delivered to the facility, the operators will deny the load or unacceptable materials will be returned on the same truck. Litter sorted out during processing will be contained in an appropriate receptacle for delivery to an approved disposal facility. Windblown materials must be collected by the end of the day and reasonable effort will be made so that no windblown material may be allowed to leave the facility boundary. The material will be collected in the event that this happens

## **1.11 FIRE PREVENTION AND CONTROL**

Due to the risk of fire and health and safety of personnel, incentives will be in place to discourage smoking on the premises. However, smoking is limited to personnel breaks and only in designated areas screened and located well away from the tipping floor, the processing line, and the storage of processed materials. Fire lanes will be maintained and passable at all times.

The possibility of fire within the facility or a piece of equipment must be anticipated in the daily operation of the facility. Fire suppression equipment shall be provided to control accidental fires and arrangements have been made with the local fire protection agency to ensure any incident at the facility will be handled with the appropriate equipment. A combination of factory installed fire suppression systems and/or portable fire extinguishers will be operational on all heavy pieces of equipment at all times. For larger or more serious outbreaks, local fire and emergency agencies will be called (dial 911).

Green Recycling Solutions, LLC will verbally notify the DWM within 24 hours of discovery of a fire within the recycling area. Additionally, written documentation describing the fire, the actions carried out to extinguish the fire, and a strategy for preventing future occurrences will be provided to the DWM within fifteen days following any such occurrence.

## **1.12 SEVERE WEATHER CONDITIONS**

Unusual weather conditions can directly affect the operation of the facility. Some of these weather conditions and recommended operational responses are as follows.

### **1.12.1 Ice Storms**

An ice storm can make access to the facility dangerous, prevent movement and, thus, may require closure of the facility until any ice deemed unsafe is removed or has melted.

### **1.12.2 Electrical Storms**

The open recycling areas of the facility are susceptible to the hazards associated with lightning. If necessary, recycling activities will be temporarily suspended during severe lightning. All personnel will be removed to a safe area

### **1.12.3 Windy Conditions**

Facility operations during a particularly windy period may require that the active tipping area and sorting operations be temporarily suspended.

### **1.12.4 Violent Storms**

In the event of hurricane, tornado, or severe summer and/or winter storm warning issued by the National Weather Service, facility operations may be temporarily suspended.

## **1.13 RECORD KEEPING PROGRAM**

The Owner will maintain the following information in an operating record at the site:

1. Debris inspection records;
2. Tonnage records including source of generation and scale certifications;
3. List of generators and haulers that have attempted to dispose of restricted wastes;
4. Employee training procedures and records of training completed;
5. Annual facility reports (to be submitted by August 1 of each year for the previous July 1 through June 30); and
6. Reports of asbestos testing, sampling data, analytical results, and acceptance or refusal of the materials.

Operating records will be presented, upon request, to the DWM for inspection. A copy of the current Operations Manual will be available at the facility for use at all times.

## 1.14 FINANCIAL ASSURANCE

A closure cost estimate equal to the cost to hire a third party to remove and clean up a week's worth of C&D waste from the facility has been provided below. A bond in this amount will be held for financial assurance.

### Closure Cost Estimate:

#### Assumptions

- 163,875 tons per year potential
- Closure based on 163,875 tons or 3,151 tons per week
- 3,151 tons divided by 20.5 tons/load = 154 loads
- \$102.5 /load cost to load and haul
- 24 man-hours @ \$15/hr cleanup = \$360
- 24 man-hours @ \$30/hr broom tip floor = \$720

#### Summary of Costs

Disposal costs	3151 tons x \$49/ton = \$154,399.00
Load and Hauling costs	154 loads x \$102.5/load = \$15,785.00
Clean up and broom floor costs	\$360 + \$720 = \$1,080.00
<b>Total Estimated Cost of Closure</b>	<b>= \$171,264.00</b>

## 2.0 *DEBRIS HANDLING OPERATIONS*

### 2.1 *OVERVIEW*

This section describes the required debris handling operations for the Green Recycling, Recycling facility. In addition to the C&D debris received at this facility, the facility also processes new construction debris such as lumber, ferrous and non-ferrous metals, etc. These materials are stored at the facility until there are sufficient quantities for pick up or delivery to various recycling contractors or end-users. The list of acceptable debris is shown below. Debris may be received from industrial sources if the material is 100% recyclable or the unrecyclable residual from industrial sources is kept physically separated from residuals to be taken to approved C&D landfills. A copy of the Site Plans prepared by Parker & Associates is included in Appendix 3 for reference.

### 2.2 *ACCEPTABLE DEBRIS*

The facility will be permitted to accept construction and demolition debris including the following that may be recycled at the facility:

- clean wood (treated, untreated, and engineered wood products);
- aggregates and inerts (clean concrete, asphalt pavement, brick, block, stones and soil);
- drywall;
- roofing shingles;
- clean metals;
- white goods;
- plastics;
- cardboard and paper;
- carpet and padding;
- Modular buildings, mobile home buildings, trailer campers; and
- other wastes as approved by the Solid Waste Section of the Division of Waste Management.

### 2.3 *PROHIBITED WASTES*

Only wastes, as defined in Section 2.2 above or approved by the DWM may be accepted. No other wastes may be accepted. Asbestos containing materials will not be accepted. Suspect asbestos-containing materials found to contain greater than 1 percent asbestos will not be accepted.

## 2.4 *DEBRIS SCREENING PROGRAM*

In order to assure that prohibited wastes are not entering the facility, a screening program will be implemented. Only waste that is initially received and processed at the recycling center will be disposed of at the Facility landfill.

Debris entering the facility will be screened by trained personnel. These individuals have been trained to recognize indications of suspicious wastes, including: hazardous placards or markings; liquids, powders, or dusts; asbestos containing materials; sludge; bright or unusual colors; drums or commercial size containers; and “chemical” odors. The screening program for visual and olfactory characteristics of prohibited wastes is an ongoing part of the facility operation.

All vehicles must stop at the scale house located at the entrance of the facility and visitors are required to sign-in. All debris transportation vehicles are weighed and the content of the load assessed by the scale attendant’s inquiry, photographic equipment, and scanners. The scale attendant requests from the driver of the vehicle a description of the debris it is carrying to ensure that unacceptable waste is not allowed into the facility. The attendant then visually checks the vehicle as it crosses the scale. Signs informing users of the acceptable and unacceptable types of waste are posted at the scale house. Once passing the scales, the vehicles are routed to the tipping floor.

Facility staff trained to identify wastes that are unacceptable will inspect the debris discharged at the tipping floor. If unacceptable waste (other than asbestos) is found upon unloading on the tipping floor, the load will be isolated, reloaded, and the generator/hauler will be logged and escorted out of the facility. Periodically, minor wastes may be encountered while sorting and processing (i.e. random bag of household waste, litter, etc.). Containers will be staged on-site such that these minor wastes will be placed in a container to be disposed at an appropriate licensed facility.

In accordance with the requirements from the State of North Carolina, Division of Epidemiology, a facility representative who has successfully completed an approved asbestos contractor/supervisor training class will be present at, or readily available to, the facility during hours of operation. Any incoming waste including recognizable suspect asbestos containing material must be accompanied by a report from an accredited asbestos inspector indicating the materials do not contain asbestos. Recognizable suspect asbestos-containing materials will not be unloaded without proper documentation. If unacceptable waste is found upon unloading on the tipping floor, the load will be isolated, wetted, and covered until it can be determined whether the material contains asbestos. Water will be available throughout the facility to eliminate dust production and migration. Sampling suspect material will be completed by a North Carolina accredited asbestos inspector. If asbestos-containing material is found to have entered the waste stream, the area around the material should be properly marked and the material wetted and covered. North Carolina accredited personnel will be required to clean-up the contaminated site in accordance with applicable regulations and transport the asbestos-containing waste to a proper disposal

facility. The facility will have an accredited inspector and abatement contractor respond should a suspect load be received. If asbestos containing materials have contaminated the staging area or pick line, all work will stop and the Health Hazards Control Unit will be notified.

## 2.5 *FACILITY OPERATIONS*

### 2.5.1 *Operating Capacity*

The maximum operating capacity (design capacity) for the recycling facility is estimated to be approximately 575 tons per day of C&D debris. Expected Facility capacity for each year of operation is presented in [Table 2-1](#) below. The anticipated annual waste stream arriving at the facility is 300 tons per day, and reaches the maximum of 575 tons per day for operational years 24 through 30.

As the facility begins operation, the expected recycling/recovery rate is 63% of waste received. The recycling rate is expected to steadily increase to a maximum of 87% of waste received at operational year 9, which continues through year 30.

The recycling rate figures are based on results seen at similar facilities in Florida which use the same equipment and operations for recycling. The anticipated waste received at the Facility is based upon current disposal rates of C&D waste by the larger construction and contracting companies in the proposed service area.

Table 2-1 – Preliminary Facility Sizing

Year	Avg. Daily C&D Waste (Tons)	Total C&D/YR Waste Received (Tons)	Percentage of C&D Waste Recovered	C&D Waste to Landfill (Tons)	C&D Landfill Airspace Required (CY)
1	300	85,500	0.63	31,635	42,180
2	310	88,350	0.68	28,272	37,696
3	325	92,625	0.70	27,788	37,050
4	350	99,750	0.72	27,930	37,240
5	400	114,000	0.85	17,100	22,800
6	400	114,000	0.85	17,100	22,800
7	450	128,250	0.85	19,238	25,650
8	450	128,250	0.85	19,238	25,650
9	475	135,375	0.87	17,599	23,465
10	475	135,375	0.87	17,599	23,465
11	475	135,375	0.87	17,599	23,465
12	500	142,500	0.87	18,525	24,700
13	500	142,500	0.87	18,525	24,700
14	500	142,500	0.87	18,525	24,700
15	500	142,500	0.87	18,525	24,700
16	525	149,625	0.87	19,451	25,935
17	525	149,625	0.87	19,451	25,935
18	525	149,625	0.87	19,451	25,935
19	525	149,625	0.87	19,451	25,935
20	550	156,750	0.87	20,378	27,170
21	550	156,750	0.87	20,378	27,170
22	550	156,750	0.87	20,378	27,170
23	550	156,750	0.87	20,378	27,170
24	575	163,875	0.87	21,304	28,405
25	575	163,875	0.87	21,304	28,405
26	575	163,875	0.87	21,304	28,405
27	575	163,875	0.87	21,304	28,405
28	575	163,875	0.87	21,304	28,405
29	575	163,875	0.87	21,304	28,405
30	575	163,875	0.87	21,304	28,405
<b>TOTALS</b>		<b>4,199,475</b>		<b>623,637</b>	<b>831,516</b>

The expected recycling rates for each type of material in the initial years of operation are presented in [Table 2-2](#) below. As shown in the table, wood is anticipated to be the largest single type of material by weight received at the Facility in the first year.

Table 2-2 – C&amp;D Recovery Rates

Waste Stream Material	Anticipated Waste Stream (%)	Material Received (tons/hour)	Recycling Rate (%)	Recovered Material (tons/hour)	Unrecovered Material (tons/hour)
Wood	34%	8.5	75%	6.38	2.13
Concrete	17%	4.25	75%	3.19	1.06
Drywall	5%	1.25	70%	0.88	0.38
Dirt and Soil	18%	4.5	85%	3.83	0.68
Ferrous Metal	5%	1.25	95%	1.19	0.06
Cardboard	4%	1	80%	0.80	0.20
Roofing/Shingles	3%	0.75	75%	0.56	0.19
Plastic	2%	0.5	80%	0.40	0.10
MSW	2.25%	0.5625	0%	0.00	0.56
Other Building Material	8%	2	50%	1.00	1.00
Non-Ferrous Metal	0.75%	0.1875	90%	0.17	0.02
Fiber for Fuel	1%	0.25	95%	0.24	0.01
<b>TOTALS</b>	<b>100%</b>	<b>25</b>		<b>18.62</b>	<b>6.38</b>
<b>WEIGHTED AVG.</b>			<b>74.48%</b>		

The first column (% Anticipated Waste Stream) is our projected expectation of the percentages of the material we will find in the debris stream measured by weight. The second column (% Recycling Rate) is the percentage of that stream that we project we will recover for sale.

It is the intent that processed materials will not be stored on site for more than 90 days, however:

- Some materials have lower volume (such as PVC pipe) which may require longer storage time to acquire enough material to sell in bulk; and
- Some materials (such as brick chips and ball field dust) which are seasonal in their markets may be stored longer to meet a seasonal demand.

### 2.5.2 *Service Area*

The anticipated service area for the facility is generally anticipated to be concentrated in Jones County and its surrounding counties including Craven, Carteret, Onslow, Duplin and Lenoir. Debris will not be accepted from out-of-state.

### 2.5.3 *Disposal Facilities*

Residual C&D debris which cannot be recycled will be disposed in the proposed adjacent C&D landfill or other properly permitted facility. Only acceptable C&D waste which has

been screened and sorted at the Facility will be placed in the adjacent landfill (if it is not recoverable).

Residual municipal solid waste (MSW) generated by the facility will be disposed at a permitted MSW facility.

#### 2.5.4 *Mobile Equipment Requirements*

Green Recycling will maintain on-site equipment required to perform the necessary recycling activities. Periodic maintenance of all equipment and minor and major repair work will be performed within designated maintenance zones or off-site. Generally, loading, hauling, dumping, mixing, and lift equipment may be used for various tasks at the facility.

The anticipated equipment requirements for operation and maintenance of the site are listed in the following table:

DESCRIPTION	PRIMARY FUNCTION (ALLOCATION)
Excavator	Loading and sorting
Front End Loader	Loading, recycling, storage, and site cleanup
Transfer Truck	Collection and transfer of C&D material

## 2.6 *RECYCLING OPERATIONS*

The facility's recycling building is used to store, separate, and contain co-mingled recyclable materials or pre-sorted materials such as new construction materials. The facility will utilize equipment as defined in the *Mobile Equipment Requirements* section to facilitate hand sorting of materials and bins for storage. A detailed summary of proposed equipment is included Appendix 1 with Preliminary Plans included in Appendix 2; both provided by MetalTech Systems.

### 2.6.1 *General Procedures*

Waste transfer operations will be conducted in accordance with this plan. Specifically, the facility operations are anticipated as follows:

1. Collection vehicles enter through the main entrance from US Highway 17.
2. Collection vehicles are weighed, recorded and logged upon entering the scale house. The content of the vehicles is assessed by the scale attendant by visual inspection and questioning.
3. Collection vehicles which do not appear to contain unacceptable wastes are directed to discharge their load onto the tipping floor of the recycling center. Collection

vehicles which are found to contain unacceptable wastes are escorted from the Facility, and the name(s) of the generator and/or hauler are logged.

4. Facility staff trained to identify unacceptable wastes will inspect the debris discharged at the tipping floor. If unacceptable wastes are identified upon unloading, the load will be isolated and reloaded, the collection vehicle will be escorted from the Facility, and the name(s) of the generator and/or hauler are logged. If asbestos-containing wastes are suspected, it is managed in accordance with the procedures outlined in the *Debris Screening Program* section above.
5. All waste at the Facility will then be processed at the recycling center. The tipping floor and loading areas must be maintained in a clean, sanitary condition at all times and must be cleaned at least daily. Waste will not be stored on the tipping floor after operating hours except for the equivalent of four 30 yard containers of material staged to process the next day. Unprocessed debris may be stored on-site a maximum of 5 working days. Storage of unprocessed debris will be placed in trucks or containers and stored under a weather proof cover or tarped if exposed to the weather. Storage of waste will be handled in a manner not to cause any nuisance, such as odor or attraction of vectors.
6. Plastics, concrete, aggregates and other inert materials, and recoverable materials will be placed in containers, except for wood.
7. Non-recyclable materials to be transported to a landfill or other disposal facilities will be securely placed in containers or trucks, placed under a weather proof cover or tarped if exposed to the weather, and removed within 5 days.

## 2.6.2 *Recycling/Source Separation*

As a means of capturing recyclable materials and/or debris screening, source separation will be conducted as follows:

- 1) Materials placed on the tipping floor will be separated using mobile equipment.
- 2) All materials to be recycled and/or processed may stay on the floor until the end of operating hours except for the equivalent of four 30 yard containers of material staged to process the next day.
- 3) Materials to be processed using stationary sorting equipment will be loaded onto a conveyor, whereupon recyclable materials will be sorted into containers using a combination of a vibratory finger screen, 12-station picking line, magnetic separator, and secondary finger screen, amongst other equipment.
- 4) Concrete (cement and asphaltic/bituminous): may be delivered and stockpiled at the limits of the recycling area. The concrete debris will be crushed and subsequently stockpiled

in this same area until it is removed from the site for sale as fill, aggregate, etc. as markets allow.

5) Source separated wood, wood pallets and cardboard may be unloaded directly onto the sorted clean wood pile and cardboard containers, respectively.

### 2.6.3 *Containers*

Containers, generally 36" x 48", used for holding recyclables and unacceptable waste will be stored in the recycling area. The containers will be removed from the processing area to designated storage areas as they are filled.

### 2.6.4 *Markets*

1) The final destination of the recyclable materials may vary depending upon market demand and prices for such materials. In general, materials which have valid markets will be recycled; however, market fluctuation is anticipated. In any case, no more than one week design volume of unprocessed debris, sorted recycled materials, and residual material shall be stored at the recycling facility. Should the Facility require larger storage capacity based on increased business demand, the Facility will be required to increase its closure bond. Recycled materials sensitive to moisture and/or likely to generate leachate shall be covered with tarpaulins.

Anticipated end markets for the recyclable materials are as follows:

Metals - Delivered to local metals recycling facility.

Wood - Facility near site for boiler fuel

Concrete, Aggregates, and Inerts - Bricks may be banded and palletized for sale to landscaping contractors; concrete, asphalt, broken brick and block will be stockpiled until it is removed from the site for sale as fill, aggregate, etc. as markets allow.

Soils - recovered and sold to companies who mix soil with compost and sell product to contractors and landscapers. Soil may also be transported to the adjacent C&D Landfill for use as cover. Stone is recovered and sold to contractors.

Drywall Gypsum - is purchased by local farmers who use gypsum to amend soils.

Carpeting and Padding - Local recycling facility, as markets allow.

Baled Plastic - Delivered to local recycled plastics company

Baled Cardboard - Sale in local market for recycled paper products

Shingles - If certified as asbestos-free, will be transported to Jacksonville asphalt plant for use in asphalt production.

### 2.6.5 *Down-Stream Processing and Storage*

The site drawings show where these activities happen at the Facility.

- Wood will be shredded mechanically and screened for boiler fuel in the stockpile area. Shredded wood will be removed from the site within 5 days
- Drywall will be shredded with a slow speed shredder or broken up by an excavator with a thumb attachment or pulverized with the tracks of a track loader and screened. This activity will take place in the stockpile areas. Storage on site will not exceed 250 tons of separated drywall and 200 tons of processed drywall. Sheetrock will be kept dry except for moisture required to alleviate dust in the shredding process
- Plastics will be shredded mechanically or granulized. This activity will take place in the stockpile areas. Shredding may not be necessary based on market demands.
- Asphalt shingles will be received at the facility in accordance with “Section 2.4 – Debris Screening Program” in this Operations Plan , for identification of potential asbestos containing shingles. Asphalt shingles will be segregated on the sort line. Shingles will be stockpiled in the stockpile area for transportation to a permitted asphalt shingle shredding facility.
- Concrete and other inerts will be stockpiled for transportation off site. Soils recovered by screening will be tested periodically for heavy metals and asbestos. Soil will also be screened to recover stone. This activity will take place within the stockpile areas.
- Cardboard will be baled or transported loose in containers. This activity will take place on the main site.
- Modular buildings, mobile home buildings and trailer campers will be deconstructed on the tipping floor and the debris processed by hand or on the sort line. The Facility will have no more than two manufactured buildings on site at any one time.

### 3.0 ENVIRONMENTAL MANAGEMENT

#### 3.1 OVERVIEW

This section reviews the overall environmental management tasks required for the successful operation of the facility.

#### 3.2 SURFACE WATER CONTROL

As used herein, the definition of “surface water” is water which results from precipitation or site run-on that has not contacted the debris.

Proper control of surface water will accomplish the following goals:

- Tipping floor and recovery & recycling operations are contained under roof;
- Prevent run-on of surface water into debris handling areas;
- Prevent the run-off of surface water that has come into contact with the debris (i.e. leachate);
- Limit the erosion caused by surface waters; and
- Limit sediments carried off-site by surface waters.

An erosion and sedimentation control plan will be prepared and approved by NCDENR Division of Land Quality (Plans are included in Appendix 3). The plan will describe both short and long term engineered features and practices for preventing erosion and controlling sedimentation at this site. Sedimentation and erosion control activities must be conducted in accordance with the Sedimentation Control Act (NCGS 113A-50, et seq.) and rules promulgated thereunder (15A NCAC 4).

Erosion control measures have been designed within the drainage channels and at points of stormwater discharge. The erosion control maintenance plan includes the following:

- 1) Inspect all sedimentation and erosion control devices for stability and function each week and following each rainfall event.
- 2) Remove silt/sediment from sediment traps and stormwater infiltration ditches when accumulated volume has reached 50% of capacity.

3) Remove accumulated silt/sediment from behind temporary sediment fence when depth exceeds approximately 0.5 feet. Repair and replace silt fence as necessary.

### 3.3 *LEACHATE MANAGEMENT*

The tipping floor and recycling & recovery operations will be contained under roof within a metal framed and metal skinned building. All in-coming materials will be unloaded on the tipping floor beneath the roof. The tipping floor will be sloped to a sump for collection of wash down water for periodic cleaning of the tipping floor. The sump will be plumbed to the on site sanitary sewer system (septic field and distribution). Pre-sorting activities and staged materials for the picking line will be covered by the roof. The loading/staging area for the sort line and the picking line will be covered under roof.

Containerized unprocessed waste will be covered at all times if exposed to weather.

### 3.4 *VECTOR CONTROL*

Control of insects, rodents, and other vermin will be accomplished by periodic cleaning of the Facility. Spilled or wind-blown debris along the access road will be cleaned up daily. The Facility will be cleaned, as necessary, each day to maintain a sanitary operation. Effective vector control measures must be applied at all times.

### 3.5 *DUST CONTROL*

Dust related to debris hauler traffic on the access roads in the stockpile areas will be minimized by using a water truck to limit dust on the gravel portion of the road, if necessary. Fugitive dust emissions are prohibited. The remainder of the facility contains concrete or asphalt pavement.

Contractors on-site to process concrete, brick, block, and sheetrock are required to comply with all applicable air quality requirements including 40 CFR Part 63, Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants.

## ***APPENDICES***

- 1. METAL TECH SYSTEMS C&D DEBRIS RECOVERY SYSTEM - DESCRIPTION***
- 2. METAL TECH SYSTEMS C&D DEBRIS RECOVERY SYSTEM - PRELIMINARY PLANS***
- 3. SITE PLANS (PREPARED BY PARKER & ASSOCIATES)***
- 4. PRELIMINARY BUILDING PLANS (PREPARED BY STILLWATER ENGINEERING)***

***APPENDIX 1***

***METAL TECH SYSTEMS C&D DEBRIS  
RECOVERY SYSTEM - DESCRIPTION***

## Equipment Operations - Supplied by Metal Tech Systems

### MetalTech Systems - C&D Debris Recovery System

#### Description of Operation:

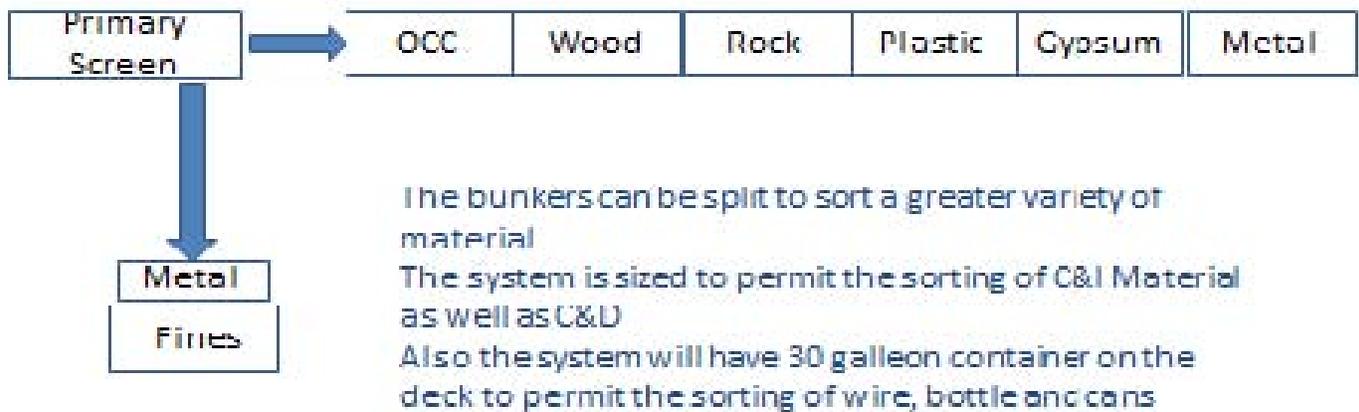
The System will process C&D debris material at a rate of up to 250 cubic yards per hour that is loaded onto a *Vibratory Finger Screen*, manufactured by **General Kinematics Corporation**. The main *Vibratory Finger Screen* will separate the material by size. The plus 2-1/2" material from the main screen will go to the *A-Line Picking Conveyor* to be positively sorted. The minus 2-1/2" material will drop to a *Unders Belt Conveyor* with an *Overhead Magnet* to remove ferrous metal and be deposited on a bunker.

#### Operational Notes:

**Material Weight and Volume:** The operational volume is assumed to be 500 pounds per cubic yard. The requested operational tonnage of 36 tons per hour is approximately 144 cubic yards an hour. The C&D System as designed by MTS has the capacity to exceed that volume since down time and other operational interruptions were not calculated into the loading specification. The Finger Screen and A-Line Picking Conveyor are sized for future expansion of up to 450 yards per hour. The System could be downsized for economic reasons but given the desire to create new markets and expected increased volume the more robust system seems a reasonable choice.

**Primary Screen:** The primary screen selected for the System is a General Kinematics Vibratory Finger Screen. The original intent of the screen was to have 6" finger decks with a B-Line to handle the minus 6" material. It is the recommendation of MTS is that the Primary Finger Deck has a minimum of a 2-1/2" screen sizing. The Vibratory Screen would have the ability to increase the size of the decking if the decision to add a B-line is undertaken. Also the Finger Screen would have several drops in the decking to promote the agitation and rolling of the material. The specification for the screen will be determined at the proposal review meeting but the changes discussed above will not affect pricing.

## Green Recycling Solutions, LLC Flow Diagram



**Fines Material:** The fines material was specified as being  $\frac{3}{4}$ ". It is our opinion that Green Recycling Solutions, LLC as owner of the landfill may be able to use a larger sized material as ADC. The costs of having a secondary screening process if required may be reduced by using a much smaller screen or even a used piece of equipment instead of using a primary screen to create the ADC. The results would be to obtain a useable and economic ADC. We would not recommend using a trommel as the only screen since it is best used on more homogeneous materials for extracting the dirt portion of the waste stream later in the sorting processing.

## MetalTech Systems - C&D Debris Recovery System

### Equipment Description:

#### Item 1 - Finger Screen

One (1) MODEL FNGR-C 72 X 36.0 **SYNCRO-COIL® FINGER-SCREEN®** CONVEYOR, 72" wide by 60" deep by 36'-0" long with Counterpoise Design "D" balancing. Unit is to be installed on a 6° decline, and designed to handle 250 CYPH of C&D material at 10-30 PCF.

#### DESCRIPTION:

##### Trough Construction:

Trough will be fabricated of 5/16" thick mild steel formed to make a vertical sided trough 72" wide by 60" deep by 36'-0" long. The first 6'-4" will be a 3/8" thick load distribution plate followed by eight (8) removable **FINGER-SCREEN®** sections each approximately 3'-9" long having tapered slot openings.

The last portion of the deck will be a solid plate to ease discharge of oversize material. Minus 3" material passing through **FINGER-SCREEN®** sections will be conveyed on a lower deck, and will discharge at the end of the unit.

##### Trough Supporting System:

The **SYNCRO-COIL®** conveyor has a synchronized frequency trough supporting system comprised of heavy-duty coil springs and stabilizer arms. The coil reactor springs are fabricated of high grade alloy spring steel, 100% shot peened; magnaflux inspected, and kept within conservative stress limits far below their normal fatigue stress range.

The stabilizer arms are high strength alloy castings fitted with heavy-duty steel encased rubber torsion bushings at each of the articulation points. Both springs and arms are held in place by domestically manufactured and certified high tensile bolts, hardened washer and lock nuts.

##### Eccentric Drive:

Unit will be equipped with exclusive, patented, heavy-duty **SYNCRO-CUSHION®** drive wherein a solid, single piece, alloy steel machined eccentric shaft, with a fixed eccentric, operates in heavy-duty self-aligning bearings to provide suitable trough stroke. Bearings are specially designed for vibratory service and feature special internal fit.

Drive trough connection will be equipped with alloy steel coil springs which permit the shaft oscillating action to fully synchronize with the natural frequency of the reactor spring system, thereby reducing drive thrusts to a minimum, reducing starting torque and eliminating high stress concentration in the drive bracket connection.

This "cushioned drive" design allows repeated starts and stops of the unit under a full product load, and accommodates surge loading, or other system upset conditions, without overstressing the various drive components.

##### Motor:

Unit will be provided with a 50 HP, 1200 RPM, T.E.F.C., Nema Design "B" normal torque motor wound for 230/460 volt, 3 phase, 60 cycle power supply.

**Base:**

The unit will be equipped with a rugged fabricated steel base comprised primarily of standard structural members arranged for mounting in an elevated location

**Counterpoise Dynamic Balancing:**

Unit will be dynamically counter-balanced by a positively driven balancer mass which moves 180° out-of-phase with the trough mass. The weight of the balancer is determined by consideration of the normal vibrating weight of the trough, and the various live load conditions that may occur. The balancer assembly is mounted to a coil spring reactor system similar to that supporting the trough. A single **SYNCRO-CUSHION®** eccentric drive assembly and coil spring equipped pivot linkage assembly work together to maintain the correct out-of-phase relationship to assure full balancing under all loading conditions.

**Item 2- A- Line Picking Conveyor**

One (1) 72" wide by 99' center to center long Variable Speed Pick Belt Conveyor.

Description:

Design: Slider bed in picking areas and troughing belt on inclined section

Speed: 60 FPM with VFD for variable speed operation

Length: 99' long

Width: 72"

Motor: 7.5 HP, 1800 RPM, 230/460V, 60 Hz, 3 phase

Belting: Black heavy-duty belting 2-ply

Safety Guards: All rotating parts guarded in accordance with OSHA regulations

Head Pulley: Drum Type, crowned, 14" dia. x 75" face, 3/8" herringbone lagging, 3-7/16" bearings and shafting

Tail Pulley: Wing Type, crowned, 14" dia. x 75" face, 2-15/16" bearings and shafting

Take-up Frame: 9" travel, wide slot type

**□ Exact length of the conveyor and engineering specifications are subject to final design criteria. The stated sizes and material are used to indicate type and class of material used in construction. The length of the incline section may vary with design criteria for material loading height.**

### Item 3 - Picking Platform

One (1) Elevated Picking Platform consisting of:

- Heavy-Duty structural steel picking platform with support structure
- Bunker spacing is 12' wide x 12' tall
- Access Non-Skid Stairways, Handrails, toe kicks, and solid decking platform panels
- Twelve (12) 36" x 48" picking boxes spaced for center of bunker

### Item 4- Unders Transfer Conveyor

One (1) 36" wide **Idler Transfer Conveyor** consisting of the following:

Type: Idler

Material: C&D Debris (Unders, minus 2-1/2")

Material density: Estimated at 10 to 30 Lb. /ft<sup>3</sup>

Speed: 250 FPM

Length 38' inclined

Width: 36"

Motor: Baldor or equal Heavy Duty Motor, 1800 RPM, 230/460V, 60Hz, 3 Ph., TEFC

Reducer: Dodge Shaft Mount Speed Reducer

Shafting 3-7/16" cold rolled precision shafting

Bearings: Rex Type E Pillow Block

Belting: Black HEAVY DUTY 1/4" Chevron Cleated 3PLY-330 PIW 3/16" x BB

Fastener System: FLEXCO Bolt Hinged Fastener 375 Stainless Steel

Pulleys: Head: 14" Dia. Heavy Duty Stainless Steel Drum Pulley crown faced and lagged 3/8" thick diamond pattern complete with XT Hubs and bushings.

Tail: 12" Dia. Wing type, crown faced - Self-cleaning with XT Hubs and bushings

Frame: Structural channel stringers with angle cross members and tubing supports.

Take-up: Telescopic Screw Take-up

Safety Guards: All rotating parts guarded in accordance with OSHA regulations

Paint: Industrial Blue

### **Item 5- Overhead Magnet- (Unit 3)**

One (1) Dings Model 15PCM-36 in Line Self Cleaning Permanent Magnet

36 inch belt width, 250 FPM belt speed, 6 to 8 inch material depth, 30 PCF. Magnet to be suspended inline at the head pulley at 12 to 13 inches.

### **Item 6 - Control Panel**

One (1) Integral control panel assembly for the MetalTech Sorting System will consist of a single control panel enclosure mounted within 15' of the picking platform and One (1) remote operator push button station.

The control panel will contain a main disconnect for the System and all necessary fuses, fuse blocks, circuit breakers, motor starting equipment, terminal blocks, push buttons and pilot lights required for complete interlock operation. The variable speed picking belt is supplied with a variable frequency drive to enable the speed of the belt to be adjusted to the load.

Starting and stopping of the system will be initiated by push button control by the operator located on the face of the control panel. Speed control for the variable speed picking belt will also be located on the face of the control panel.

The remote operator push button station will allow for the starting, stopping and pausing of the system.

Field disconnect switches will be provided for each motor and located near the respective motor for each of the machines. Pull cord Stop switches will be provided on the variable speed picking belt.

All control equipment and enclosures will be suitable for indoor or outdoor use.

**NOTE:** System components will be shipped in the most complete manner as possible to allow for quick and efficient installation and operation once delivered

**APPENDIX 2**

**METAL TECH SYSTEMS C&D DEBRIS**

**RECOVERY SYSTEM - PRELIMINARY PLANS**

*(Plans have been reduced to 11" X 17" for reference purposes only)*

**APPENDIX 3**

**SITE PLANS (PREPARED BY PARKER & ASSOCIATES)**

*(Plans have been reduced to 11" X 17" for reference purposes only)*

## **APPENDIX 4**

### **PRELIMINARY BUILDING PLANS (PREPARED BY STILLWATER ENGINEERING)**

*(Plans have been reduced to 11" X 17" for reference purposes only)*