

David Read
Module ACOZZ

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Gainesville, FL 32606

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December 11, 2013

Mr. Syed Arif
Air Program Administrator
Dept. Of Environmental Protection
2600 Blair Stone Rd.
Tallahassee, FL 32399

RECEIVED
DEC 12 2013
DIVISION OF AIR
RESOURCE MANAGEMENT

RE: Gilman Building Products
Perry Mill
Kiln # 4 Construction Permit Application

Project No.
1230033-012-AC-PSD
427

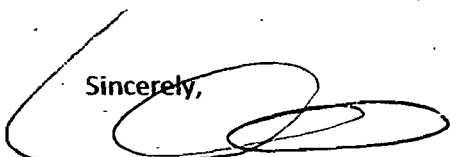
Dear Mr. Arif,

I am pleased to submit the attached completed Title v construction permit application, supporting documentations and application fee of \$7,500.00 on behalf of the Gilman Building Products.

Your prompt review and processing of this application is greatly appreciated. We will provide you with an electronic copy of the application for distribution to other staff members.

As always, please feel free to contact me, should you have any question or require additional information.

Sincerely,



Frank Darabi, P.E.
President

CC: Mr. Victor Garrett
Mr. Cullen Adair

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DEC 12 2013

Permitting Application - Permit Detail and Log Permit

POINT AIRS ID 1230033 STATUS A OFFICE HED NE: JACKSONVILLE
SITE NAME GILMAN BUILDING PRODUCTS COUNTY TAYLOR
OWNER/COMPANY GILMAN BUILDING PRODUCTS

ARMS Facility RESOURCE MANAGEMENT

Project
AIR Permit # - - - Project # 012 CRA Reference #
Permit Office TAL (HEADQUARTERS) Agency Action Pending OGC
Project Name AC022-NEW KILN-PSD-427 Desc Application is to construct a new 90 million board feet per year Direc
Type/Sub/Des AC / 1A PSD or NAA \$7500 Logged 12/12/2013
Received 12/12/2013 Issued Expires Application Action NEW
Fee 7500.00 Fee Recd Dele Override NONE

Related Party
Role APPLICANT Begin 12/12/2013 End
Name GARRETT, VICTOR H Company GILMAN BUILDING PRODUCTS
Address 3823 OWENS ROAD
City YULEE State FL Zip 32097 Country U.S.A.
Phone 904-548-1013 Fax 904-548-1029 Email victorgarrett@gilmanbp.com

Processors
Processor READ D Y Active 12/12/2013 Inactive Events



Department of Environmental Protection

Division of Air Resource Management APPLICATION FOR AIR PERMIT - LONG FORM

RECEIVED

I. APPLICATION INFORMATION

DEC 12 2013

Air Construction Permit – Use this form to apply for an air construction permit:

- For any required purpose at a facility operating under a federally enforceable state air operation permit (FESOP) or Title V air operation permit;
- For a proposed project subject to prevention of significant deterioration (PSD) review, nonattainment new source review, or maximum achievable control technology (MACT);
- To assume a restriction on the potential emissions of one or more pollutants to escape a requirement such as PSD review, nonattainment new source review, MACT, or Title V; or
- To establish, revise, or renew a plantwide applicability limit (PAL).

DIVISION OF AIR
RESOURCE MANAGEMENT

Air Operation Permit – Use this form to apply for:

- An initial federally enforceable state air operation permit (FESOP); or
- An initial, revised, or renewal Title V air operation permit.

To ensure accuracy, please see form instructions.

Identification of Facility

1. Facility Owner/Company Name: Gilman Building Products	
2. Site Name: Perry Mill	
3. Facility Identification Number: 1230033	
4. Facility Location... Street Address or Other Locator: 1509 S. Byron Butler Parkway City: Perry County: Taylor Zip Code: 32348	
5. Relocatable Facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6. Existing Title V Permitted Facility? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Application Contact

1. Application Contact Name: Frank Darabi, P.E.
2. Application Contact Mailing Address... Organization/Firm: Darabi and Associates, Inc. Street Address: 4140 NW 37th Place City: Gainesville State: FL Zip Code: 32606
3. Application Contact Telephone Numbers... Telephone: (352) 376 - 6533 ext. Fax: (352) - 692-5390
4. Application Contact E-mail Address:

Application Processing Information (DEP Use)

1. Date of Receipt of Application: 12-12-13	3. PSD Number (if applicable):
2. Project Number(s): 1230033-012-AC	4. Siting Number (if applicable):

APPLICATION INFORMATION

Purpose of Application

This application for air permit is being submitted to obtain: (Check one)

Air Construction Permit

- Air construction permit.
- Air construction permit to establish, revise, or renew a plantwide applicability limit (PAL).
- Air construction permit to establish, revise, or renew a plantwide applicability limit (PAL), and separate air construction permit to authorize construction or modification of one or more emissions units covered by the PAL.

Air Operation Permit

- Initial Title V air operation permit.
- Title V air operation permit revision.
- Title V air operation permit renewal.
- Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is required.
- Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is not required.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit (Concurrent Processing)

- Air construction permit and Title V permit revision, incorporating the proposed project.
- Air construction permit and Title V permit renewal, incorporating the proposed project.

Note: By checking one of the above two boxes, you, the applicant, are requesting concurrent processing pursuant to Rule 62-213.405, F.A.C. In such case, you must also check the following box:

- I hereby request that the department waive the processing time requirements of the air construction permit to accommodate the processing time frames of the Title V air operation permit.

Application Comment

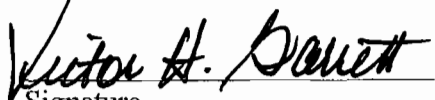
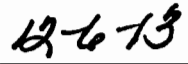
This Construction application is being submitted to construct a new 90 million board feet per year Direct Kiln at the existing facility. Once this kiln is constructed and in operation, the facility will permanently shut down the following existing units:

- Existing Wood Fired Boiler - 46 MMBtu/hr Capacity
- Existing Indirect Fired Kiln # 1- 63 Million Board feet Capacity
- Existing Indirect Fired kiln # 2- 33 Million Board feet Capacity

APPLICATION INFORMATION

Owner/Authorized Representative Statement

Complete if applying for an air construction permit or an initial FESOP.

1. Owner/Authorized Representative Name : Victor H. Garrett, President
2. Owner/Authorized Representative Mailing Address... Organization/Firm: Gilman Building Products LLC Street Address: 581705 White Oak Road City: Yulee State: Florida Zip Code: 32097
3. Owner/Authorized Representative Telephone Numbers... Telephone: (904)548 - 1013 ext. Fax: (904)548 - 1022
4. Owner/Authorized Representative E-mail Address: victorgarrett@gilmaubp.com
5. Owner/Authorized Representative Statement: <i>I, the undersigned, am the owner or authorized representative of the corporation, partnership, or other legal entity submitting this air permit application. To the best of my knowledge, the statements made in this application are true, accurate and complete, and any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department.</i>  Signature  Date

APPLICATION INFORMATION


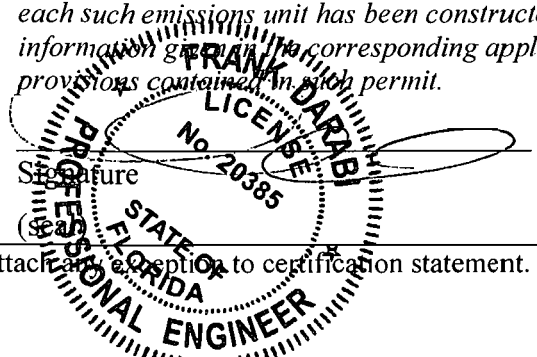
Owner/Authorized Representative Statement

Complete if applying for an air construction permit or an initial FESOP.

1. Owner/Authorized Representative Name : Victor H. Garrett, President
2. Owner/Authorized Representative Mailing Address... Organization/Firm: Gilman Building Products LLC Street Address: 581705 White Oak Road City: Yulee State: Florida Zip Code: 32097
3. Owner/Authorized Representative Telephone Numbers... Telephone: (904)548 - 1013 ext. Fax: (904)548 - 1022
4. Owner/Authorized Representative E-mail Address: victorgarrett@gilmanbp.com
5. Owner/Authorized Representative Statement: <i>I, the undersigned, am the owner or authorized representative of the corporation, partnership, or other legal entity submitting this air permit application. To the best of my knowledge, the statements made in this application are true, accurate and complete, and any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department.</i> _____ Signature _____ Date

APPLICATION INFORMATION

Professional Engineer Certification

1. Professional Engineer Name: Frank Darabi, P.E. Registration Number: 20385
2. Professional Engineer Mailing Address... Organization/Firm: Darabi and Associates, Inc. Street Address: 4140 NW 48th Lane City: Gainesville State: FL Zip Code: 32606
3. Professional Engineer Telephone Numbers... Telephone: (352) 376 - 6533 ext. Fax: (352) 692 - 5390
4. Professional Engineer E-mail Address: fdarabi@darabiassociates.com
5. Professional Engineer Statement: <i>I, the undersigned, hereby certify, except as particularly noted herein*, that:</i> (1) <i>To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this application for air permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and</i> (2) <i>To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.</i> (3) <i>If the purpose of this application is to obtain a Title V air operation permit (check here <input type="checkbox"/>, if so), I further certify that each emissions unit described in this application for air permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance plan and schedule is submitted with this application.</i> (4) <i>If the purpose of this application is to obtain an air construction permit (check here <input checked="" type="checkbox"/>, if so) or concurrently process and obtain an air construction permit and a Title V air operation permit revision or renewal for one or more proposed new or modified emissions units (check here <input type="checkbox"/>, if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.</i> (5) <i>If the purpose of this application is to obtain an initial air operation permit or operation permit revision or renewal for one or more newly constructed or modified emissions units (check here <input type="checkbox"/>, if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.</i> Signature:  Date: <u>12-11-13</u> 

* Attach as an exception to certification statement.

FACILITY INFORMATION

Facility Regulatory Classifications

Check all that would apply *following* completion of all projects and implementation of all other changes proposed in this application for air permit. Refer to instructions to distinguish between a “major source” and a “synthetic minor source.”

1.	<input type="checkbox"/> Small Business Stationary Source	<input type="checkbox"/> Unknown
2.	<input type="checkbox"/> Synthetic Non-Title V Source	
3.	<input checked="" type="checkbox"/> Title V Source	
4.	<input checked="" type="checkbox"/> Major Source of Air Pollutants, Other than Hazardous Air Pollutants (HAPs)	
5.	<input type="checkbox"/> Synthetic Minor Source of Air Pollutants, Other than HAPs	
6.	<input checked="" type="checkbox"/> Major Source of Hazardous Air Pollutants (HAPs)	
7.	<input type="checkbox"/> Synthetic Minor Source of HAPs	
8.	<input type="checkbox"/> One or More Emissions Units Subject to NSPS (40 CFR Part 60)	
9.	<input type="checkbox"/> One or More Emissions Units Subject to Emission Guidelines (40 CFR Part 60)	
10.	<input checked="" type="checkbox"/> One or More Emissions Units Subject to NESHAP (40 CFR Part 61 or Part 63)	
11.	<input type="checkbox"/> Title V Source Solely by EPA Designation (40 CFR 70.3(a)(5))	
12.	<p>Facility Regulatory Classifications Comment:</p> <p>The existing facility proposes to install a new 90,000,000 board feet per year capacity Direct-Fired Kiln #4 which is subject to PSD review for VOC emissions.</p> <p>The existing facility is a major source of HAPs and is also a PSD major facility.</p>	

FACILITY INFORMATION

List of Pollutants Emitted by Facility

1. Pollutant Emitted	2. Pollutant Classification	3. Emissions Cap [Y or N]?
CO	A	N
NOX	B	N
PM	B	N
PM10	B	N
VOC	A	N
H095	B	N
H115	A	N

FACILITY INFORMATION

C. FACILITY ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1.	Facility Plot Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: Figure 2 <input type="checkbox"/> Previously Submitted, Date: _____
2.	Process Flow Diagram(s): (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: Figure 3 <input type="checkbox"/> Previously Submitted, Date: _____
3.	Precautions to Prevent Emissions of Unconfined Particulate Matter: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: Report <input type="checkbox"/> Previously Submitted, Date: _____

Additional Requirements for Air Construction Permit Applications

1.	Area Map Showing Facility Location: <input checked="" type="checkbox"/> Attached, Document ID: Figure 1 <input type="checkbox"/> Not Applicable (existing permitted facility)
2.	Description of Proposed Construction, Modification, or Plant wide Applicability Limit (PAL): <input checked="" type="checkbox"/> Attached, Document ID: Report
3.	Rule Applicability Analysis: <input checked="" type="checkbox"/> Attached, Document ID: Report
4.	List of Exempt Emissions Units: <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable (no exempt units at facility)
5.	Fugitive Emissions Identification: <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
6.	Air Quality Analysis (Rule 62-212.400(7), F.A.C.): <input checked="" type="checkbox"/> Attached, Document ID: Report <input type="checkbox"/> Not Applicable
7.	Source Impact Analysis (Rule 62-212.400(5), F.A.C.): <input checked="" type="checkbox"/> Attached, Document ID: Report <input type="checkbox"/> Not Applicable
8.	Air Quality Impact since 1977 (Rule 62-212.400(4)(e), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
9.	Additional Impact Analyses (Rules 62-212.400(8) and 62-212.500(4)(e), F.A.C.): <input checked="" type="checkbox"/> Attached, Document ID: Report <input type="checkbox"/> Not Applicable
10.	Alternative Analysis Requirement (Rule 62-212.500(4)(g), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

FACILITY INFORMATION

C. FACILITY ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for FESOP Applications

- | |
|--|
| 1. List of Exempt Emissions Units:
<input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable (no exempt units at facility) |
|--|

Additional Requirements for Title V Air Operation Permit Applications

NA

- | |
|--|
| 1. List of Insignificant Activities: (Required for initial/renewal applications only)
<input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable (revision application) |
| 2. Identification of Applicable Requirements: (Required for initial/renewal applications, and for revision applications if this information would be changed as a result of the revision being sought)
<input type="checkbox"/> Attached, Document ID: _____
<input type="checkbox"/> Not Applicable (revision application with no change in applicable requirements) |
| 3. Compliance Report and Plan: (Required for all initial/revision/renewal applications)
<input type="checkbox"/> Attached, Document ID: _____
Note: A compliance plan must be submitted for each emissions unit that is not in compliance with all applicable requirements at the time of application and/or at any time during application processing. The department must be notified of any changes in compliance status during application processing. |
| 4. List of Equipment/Activities Regulated under Title VI: (If applicable, required for initial/renewal applications only)
<input type="checkbox"/> Attached, Document ID: _____
<input type="checkbox"/> Equipment/Activities Onsite but Not Required to be Individually Listed
<input type="checkbox"/> Not Applicable |
| 5. Verification of Risk Management Plan Submission to EPA: (If applicable, required for initial/renewal applications only)
<input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable |
| 6. Requested Changes to Current Title V Air Operation Permit:
<input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable |

Section [1] of [1]
EMISSIONS UNIT INFORMATION

III. EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Application - For Title V air operation permitting only, emissions units are classified as regulated, unregulated, or insignificant. If this is an application for an initial, revised or renewal Title V air operation permit, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each regulated and unregulated emissions unit addressed in this application. Some of the subsections comprising the Emissions Unit Information Section of the form are optional for unregulated emissions units. Each such subsection is appropriately marked. Insignificant emissions units are required to be listed at Section II, Subsection C.

Air Construction Permit or FESOP Application - For air construction permitting or federally enforceable state air operation permitting, emissions units are classified as either subject to air permitting or exempt from air permitting. The concept of an “unregulated emissions unit” does not apply. If this is an application for an air construction permit or FESOP, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air permitting are required to be listed at Section II, Subsection C.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit Application – Where this application is used to apply for both an air construction permit and a revised or renewal Title V air operation permit, each emissions unit is classified as either subject to air permitting or exempt from air permitting for air construction permitting purposes, and as regulated, unregulated, or insignificant for Title V air operation permitting purposes. A separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit addressed in this application that is subject to air construction permitting and for each such emissions unit that is a regulated or unregulated unit for purposes of Title V permitting. (An emissions unit may be exempt from air construction permitting but still be classified as an unregulated unit for Title V purposes.) Emissions units classified as insignificant for Title V purposes are required to be listed at Section II, Subsection C.

If submitting the application form in hard copy, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application must be indicated in the space provided at the top of each page.

EMISSIONS UNIT INFORMATION

Section [1] of [1]

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)

The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one)

This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

1. Description of Emissions Unit Addressed in this Section:
New Direct-Fired Lumber Drying Kiln #4

3. Emissions Unit Identification Number: **Not Assigned**

4. Emissions Unit Status Code: A	5. Commence Construction Date: December 2013	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code: 24
-------------------------------------	--	--------------------------	--

8. Federal Program Applicability: (Check all that apply)

Acid Rain Unit

CAIR Unit

9. Package Unit:
Manufacturer: **Kiln Drying Systems & Components, Inc.**
Model Number:

10. Generator Nameplate Rating:

11. Emissions Unit Comment: **Kiln Specifications: Double Track With the following Dimensions:**
Width: 34'
Length: 85'
of Roof Vents: 20 size 22"X22"

EMISSIONS UNIT INFORMATION

Section [1] of [1]

Emissions Unit Control Equipment/Method: Control ___ of ___ **NA**

1. Control Equipment/Method Description:
2. Control Device or Method Code:

Emissions Unit Control Equipment/Method: Control ___ of ___

1. Control Equipment/Method Description:
2. Control Device or Method Code:

Emissions Unit Control Equipment/Method: Control ___ of ___

1. Control Equipment/Method Description:
2. Control Device or Method Code:

Emissions Unit Control Equipment/Method: Control ___ of ___

1. Control Equipment/Method Description:
2. Control Device or Method Code:

EMISSIONS UNIT INFORMATION

Section [1] of [1]

C. EMISSION POINT (STACK/VENT) INFORMATION**(Optional for unregulated emissions units.)****Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram:		2. Emission Point Type Code: 3	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: Kiln #4- A Direct Fired Kiln			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:			
5. Discharge Type Code: P		6. Stack Height: 20 feet	
		7. Exit Diameter: 22" X 22"	
8. Exit Temperature: 240°F		9. Actual Volumetric Flow Rate: Acfm: 8,100	
		10. Water Vapor: 19 %	
11. Maximum Dry Standard Flow Rate: dscfm		12. Nonstack Emission Point Height: 25 Feet	
13. Emission Point UTM Coordinates... Zone: 17 East (km): 250.7 North (km): 3332.5		14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) 30 06 00 Longitude (DD/MM/SS) 83 35 14	
15. Emission Point Comment:			

EMISSIONS UNIT INFORMATION

Section [1] of [1]

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 1

1. Segment Description (Process/Fuel Type): Sawmill Operations: Direct-fired Kiln for drying of cut lumber		
2. Source Classification Code (SCC): 3-07-008-98		3. SCC Units: 1000 board feet (MBF)
4. Maximum Hourly Rate: NA	5. Maximum Annual Rate: 90,000 MMBF/yr	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: 3.9 mmBtu/MBF
10. Segment Comment: Item #4. Batch operation, 18-24 hours/batch Item# 9. MMBtu/SCC Unit = (40 MMBtu/hr)* (1/10.27 hr/MBF) =3.9MMBtu/MBF		

Segment Description and Rate: Segment of

1. Segment Description (Process/Fuel Type):		
2. Source Classification Code (SCC):		3. SCC Units:
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment:		

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
 POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**
 (Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: PM/PM10		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 3.8 lb/hour 16.7 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 0.37 lbs/MBF Reference: NCASI Reference		7. Emissions Method Code: 5	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: PM/PM10/PM2.5, tpy = 0.37 lbs/MBF x 90,000 MBF/yr x ton/2000 lb = 16.7 tpy PM/PM10/PM2.5, lb/hr = 16.7 tpy x 2000 lbs/ton x year/8760 hrs = 3.8 lb/hr			
11. Potential, Fugitive, and Actual Emissions Comment: For purposes of this review, PM is assumed equal to PM10 and PM2.5.			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: RULE	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.2 lb/MMBtu	4. Equivalent Allowable Emissions: 8.0 lb/hour 35.0 tons/year
5. Method of Compliance: VE testing using EPA Method 9.	
6. Allowable Emissions Comment (Description of Operating Method): Rule 62-296.410(2)(b), F.A.C., for Carbonaceous Fuel Burning Equipment.	

Allowable Emissions Allowable Emissions of

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions of

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

**PSD CONSTRUCTION PERMIT APPLICATION
REPORT**

**GILMAN BUILDING PRODUCTS
PERRY MILL, PERRY, FLORIDA**

**BY
DARABI AND ASSOCIATES, INC.
GAINESVILLE, FLORIDA**

DECEMBER 2013

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1.0 INTRODUCTION AND FACILITY INFORMATION

Gilman Building Products, LLC operates a Saw Mill in Perry, Florida that processes Southern Pine logs into chips, bark, and graded lumber. The facility currently uses a 46 MMBtu/hr wood-fired boiler to provide heat for two indirect-fired lumber kilns with annual capacities of 63 and 33 Million Board Feet (MMBF), respectively. There is also one direct-fired lumber kiln with an annual capacity of 60 MMBF.

Other equipment includes two baghouses for the transfer systems, a log debarker, saw, chipper, sorter, planer, cyclones and a hammer mill.

Southern Pine logs arrive by truck and are unloaded in a log storage area prior to debarking. Debarked logs are sawed and then dried on site in the kilns. Wood wastes are fed from the saw mill into the boiler and the direct-fired kiln via silos and conveyors. The dried lumber is then planed, trimmed, and graded prior to shipment.

2.0 PROJECT DESCRIPTION

Gilman Building Products, LLC proposes to replace the older indirect-fired lumber kilns with a new direct fired 40 MMBtu/hr lumber kiln with an annual capacity of 90 MMBF. The two existing indirect-fired kilns as well the wood-fired boiler will be permanently shut down.

The project will result in a reduction in facility's potential annual production capacity from 156 MMBF to 150 MMBF and a reduction in the fuel firing capacity from 46 MMBtu/hr to 40 MMBtu/hr. Although the proposed project will result in a reduction in potential air emissions, there will be an increase in actual emissions since the existing kilns were not operated at maximum capacity.

3.0 APPLICABLE REQUIREMENTS

EU 001, the existing wood-fired boiler is subject to the requirements of Rule 62-296.410(2)(a), F.A.C.– Carbonaceous Fuel Burning Equipment, and 40 CFR 63, Subpart DDDDD - National Emission Standards for HAP for Major Sources: Industrial, Commercial and Institutional Boilers.

EUs 002 and 005: The Bark & Sawdust Silo and #2 Fuel System are classified as unregulated emissions units. Neither unit is subject to any unit specific applicable emissions standards.

EU 004, the Direct Fired Lumber Drying Kiln #3 has an independent waste wood fired burner for the drying of cut lumber. The unit is batch fired kiln. The capacity of the kiln is limited to 140,000 board feet per charge and 60 MMBF per any consecutive 12-month period. The kiln is subject to the requirements of State Rule 62-296.410(2)(a), F.A.C.– Carbonaceous Fuel

Burning Equipment and 40 CFR 63, Subpart DDDD - National Emission Standards for Hazardous Air Pollutants: Plywood and Composite Wood Products. However, the kiln not required to comply with any compliance/operating requirement, and the work practice standards. EU 006, the Indirect Fired Lumber Drying Kiln # 1 is a batch fired kiln with two tracks for loading lumber. The capacity of the kiln is estimated as 147,000 BF/charge. The kiln's maximum annual production rate is unrestricted based on the kiln's current configuration and operating methods, and is estimated at 63 MMBF. The kiln is classified as an unregulated emissions unit as it is not subject to any unit-specific applicable emissions criteria.

EU 007, the Indirect Fired Lumber Drying Kiln # 2 is a batch fired kiln with one track for loading lumber. The capacity of the kiln is estimated as 76,000 BF/charge. The kiln's maximum annual production rate is unrestricted based on the kiln's current configuration and operating methods, and is estimated at 33 MMBF. The kiln is classified as an unregulated emissions unit as it is not subject to any unit-specific applicable emissions criteria.

The proposed new direct-fired kiln is a batch kiln and has an independent waste wood fired burner for the drying of cut lumber. The capacity of the kiln is around 225,000 board feet per charge and 90 MMBF per year. The kiln is subject to the requirements of State Rule 62-296.410(2)(b), F.A.C.– Carbonaceous Fuel Burning Equipment and 40 CFR 63, Subpart DDDD - National Emission Standards for Hazardous Air Pollutants: Plywood and Composite Wood Products. However, the kiln not required to comply with any compliance/operating requirement, and the work practice standards, except for the initial notification requirements in 40CFR63.9(b).

Although the proposed project will result in a reduction in potential air emissions, there will be an increase in actual emissions since the existing kilns were not operated at maximum capacity. As a result, the proposed project will result in a PSD significant increase in VOC emissions and is therefore subject to PSD review requirements in Rule 62-212, F.A.C. This includes a determination of the Best Available Control Technology (BACT) as well as a review of the ambient air quality impacts.

4.0 EMISSIONS CALCULATIONS

There are air emissions from the point sources as well as non-point sources such as storage piles. The fugitive emissions from the facility operations include unconfined particulate matter. Reasonable precautions to minimize PM emissions include the use of vegetation, installation of screens and paving of roads, as practical. Fugitive VOC emissions from paint and other VOC containing cans are minimized by keeping the lids closed when not in use.

The emissions from the existing equipment to be shut down can be calculated based on historical production rates and appropriate emission factors.

The emission estimates for the wood-fired boiler are based on emission factors from AP-42, Tables 1.6-1, 1.6-2 and 1.6-3.

The emission estimates for the indirect and direct-fired kilns are based on NCASI references.

The historical operation rates of Kilns 1 are as follows:

Kiln 1	Highest Month	Year Total
2008	Sept - 3,630,927	34,224,064
2009	October 3,024,452	27,449,382
2010	August - 3,498,859	34,865,230
2011	March - 3,432,827	30,724,696
2012	March - 2,722,863	29,642,452

The historical operation rates of Kilns 2 are as follows:

Kiln 2	Highest Month	Highest Year
2008	June - 1,919,293	18,708,343
2009	October - 1,631,879	14,325,091
2010	October - 1,649,579	17,479,493
2011	March - 2,014,163	17,070,292
2012	May - 1,940,244	18,381,122

The baseline emissions for the two kilns can be calculated based on 2010-2011 operations, which reflect the highest 2-year combined average. The baseline emissions for the boiler can be estimated based on annual production rates of Kilns 1 and 2 by prorating the allowable annual heat input.

The baseline emissions for the boiler and Kilns 1 and 2 are presented in Table 1.

The estimated emissions from the new Kiln 4 are presented in Table 2.

The net emissions increase from the proposed project are presented in Table 3.

Please note that the GHG emissions analysis was limited to CO₂ emissions as they are below review thresholds and contributions from CH₄ and N₂O are low enough not to affect rule applicability, based on the following emission factors in 40CFR98, Subpart C, Table C-1:

CO₂, EF = 93.8 kg/MMBtu, with a Global Warming Potential of 1.

CH₄, EF = 3.2 E-2 kg/MMBtu, with a Global Warming Potential of 21.

N₂O, EF = 4.2 E-2 kg/MMBtu, with a Global Warming Potential of 310.

TABLE 1 - BASELINE EMISSIONS FOR EMISSION UNITS TO BE SHUTDOWN							
BOILER	EF Source	EF	Rate/yr	EF	Rate/yr	Emissions	Emissions
46 MMBtu/hr		lb/MMBtu	MMBtu/yr	lb/MBF	MBF/yr	lb/hr	tpy
PM	Permit	0.2	210168	-	-	4.8	21.0
SO2	AP-42	0.025	210168	-	-	0.6	2.6
NOX	AP-42	0.22	210168	-	-	5.3	23.1
CO	AP-42	0.6	210168	-	-	14.4	63.1
VOC	AP-42	0.017	210168	-	-	0.4	1.8
Formaldehyde	AP-42	0.0044	210168	-	-	0.1	0.5
Methanol	AP-42		210168	-	-	0	0.0
CO2	40CFR98	206.36	210168	-	-		21685.2
INDIRECT-FIRED KILN 1	EF Source		Rate/yr	EF	Rate/yr	Emissions	Emissions
147 MBF/batch			MMBtu/yr	lb/MBF	MBF/yr	lb/hr	tpy
63000 MBF/yr							
25 MMBtu/hr							
PM	NCASI Reference	-	-	0.0307	32795	0.1	0.5
SO2	see boiler	-	-	-	-	0.0	0.0
NOX	see boiler	-	-	-	-	0.0	0.0
CO	see boiler	-	-	-	-	0.0	0.0
VOC	NCASI Reference	-	-	3.8	32795	14.2	62.3
Formaldehyde	NCASI Reference	-	-	0.0155	32795	0.1	0.3
Methanol	NCASI Reference	-	-	0.202	32795	0.8	3.3
CO2	see boiler	-	-	-	-		0.0
INDIRECT-FIRED KILN 2	EF Source		Rate/yr	EF	Rate/yr	Emissions	Emissions
76 MBF/batch			MMBtu/yr	lb/MBF	MBF/yr	lb/hr	tpy
33000 MBF/yr							
25 MMBtu/hr							
PM	NCASI Reference	-	-	0.0307	17275	2.7	0.3
SO2	see boiler	-	-	-	-	0.6	0.0
NOX	see boiler	-	-	-	-	2.1	0.0
CO	see boiler	-	-	-	-	5.1	0.0
VOC	NCASI Reference	-	-	3.8	17275	23.2	32.8
Formaldehyde	NCASI Reference	-	-	0.0155	17275	0.5	0.1
Methanol	NCASI Reference	-	-	0.202	17275	1.4	1.7
CO2	see boiler	-	-	-	-		0.0

TABLE 2 - POTENTIAL EMISSIONS FROM NEW LUMBER KILN 4							
DIRECT-FIRED KILN 4	EF Source	EF	Rate/yr	EF	Rate/yr	Emissions	Emissions
76 MBF/batch		lb/MMBtu	MMBtu/yr	lb/MBF	MBF/yr	lb/hr	tpy
90000 MBF/yr							
40 MMBtu/hr							
PM	NCASI Reference	-	-	0.37	90000	3.8	16.7
SO2	AP-42	0.025	350400	-	-	1.0	4.4
NOX	NCASI Reference	-	-	0.21	90000	2.2	9.5
CO	NCASI Reference	-	-	0.89	90000	9.1	40.1
VOC	NCASI Reference	-	-	3.8	90000	39.0	171.0
Formaldehyde	NCASI Reference	-	-	0.0776	90000	0.8	3.5
Methanol	NCASI Reference	-	-	0.202	90000	2.1	9.1
CO2	40CFR98	206.36	350400	-	-	8254.4	36154.3

TABLE 3 - NET EMISSION CHANGES					
POLLUTANT	TOTAL EXISTING	TOTAL PROPOSED	NET INCREASE	PSD Sig.	PSD?
	TPY	TPY	TPY		
	Boiler, K1 & K2	K4			
PM	21.8	16.7	-5.1	25/15/10	NO
SO2	2.6	4.4	1.8	40	NO
NOX	23.1	9.5	-13.7	40	NO
CO	63.1	40.1	-23.0	100	NO
VOC	96.9	171.0	74.1	40	YES
Formaldehyde	0.9	3.5	2.6	NA	NO
Methanol	5.1	9.1	4.0	NA	NO
CO2	21685.2	36154.3	14469.1	75000	NO

TABLE 4 - PARTICULATE MATTER TEST SUMMARY FOR BOILER			
BOILER PM TESTS	Rate MMBtu/hr	PM lb/hr	PM lb/MMBtu
YR			
2008	36.3	6.05	0.167
2013	41.49	8.11	0.195
AVERAGE			0.181

NOTE: Testing required every 5 years.

The emission calculations indicate a decrease in actual air emissions of PM, NOX and CO. The emission calculations show an increase in actual emissions of SO2, VOCs, Formaldehyde, Methanol and GHGs.

Only the VOC emissions exceed the PSD significance level of 40 tpy. Accordingly, the PSD review requirements are addressed only for VOCs.

5.0 BEST AVAILABLE CONTROL TECHNOLOGY REVIEW FOR VOCs

Although there will be a reduction in potential VOC emissions from the facility, there will be an actual increase of 74.1 tpy as a result of the proposed project. As part of the PSD review requirements, a BACT review is therefore required for VOCs.

BACT is defined as an emission limitation reflecting the maximum degree of reduction that the permitting authority, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such a facility through application of production processes and available methods, systems, and techniques. In all cases BACT must establish emission limitations or specific design characteristics at least as stringent as applicable New Source Performance Standards (NSPS).

There are no applicable New Source Performance Standards for the direct-fired lumber kiln. However, there are several VOC control methods that can be evaluated:

- Wet scrubbers
- Thermal and catalytic oxidizers
- Activated carbon or biofilters
- Condensers
- Process controls

Wet Scrubbers

The wet scrubbing control technology consists of a transfer of VOC compounds in the gas stream when contacted by a scrubbing liquid. This technology is used in many control applications but is not well suited for VOC controls for a lumber kiln.

The VOC emissions consist mostly of terpenes which have low water solubility. Further, the viscous condensate would result in frequent plugging of the equipment. Therefore, wet scrubbers are not considered technically feasible for controlling VOC emissions from lumber kilns.

Thermal and Catalytic Oxidizers

Oxidation control technologies involve the oxidation of VOC compounds into carbon dioxide and water vapor. The two commonly used oxidizer types are thermal or catalytic. There are several aspects of this technology that are not well suited for lumber kilns.

Due to the highly variable gas flow rates from the kilns, the residence time required for the oxidizers is difficult to maintain. In the case of thermal oxidizers, there would be the need for significant supplemental heat to maintain operating temperatures of around 1600 °F since the gas stream exhausting the kilns are at much lower temperatures and the batch cycles result in periods of low flow and low temperatures. This temperature and VOC concentration variation poses a challenge for all types of oxidizers including regenerative, recuperative and catalytic units resulting in much higher fuel use than in most industrial applications.

Activated Carbon or Biofilters

This technology uses the adhesion of VOC molecules in the gas stream onto the surface of a solid substrate. Activated carbon and biofilters are most commonly used in industrial applications. However, this technology is not recommended for controlling VOCs from lumber kilns.

The gas stream from the lumber kiln is very high in moisture content. That moisture preferentially condenses onto the adsorbent surface leaving less area available for the VOC molecules thus reducing control efficiency. The control equipment sizing is also complicated by the batch processing of the kiln which results in significant variability in flow rates. Most adsorption units are not recommended for the higher operating temperatures encountered with lumber kilns. Lumber kilns typically operate in a temperature range that is used to desorb VOC from activated carbon. Further, the viscous condensate from any cooling system that could be utilized would result in frequent plugging of the adsorption equipment.

Condensers

Condensers operate by cooling the gas stream below the vaporization point for the VOCs. The VOCs in the gas stream can be condensed and removed. The condensate can either be disposed through a wastewater treatment system or can be recycled by distillation. This control technology is not recommended for lumber kilns for several reasons.

This technology is most effective for applications where there is a high VOC concentration in the gas stream, of around 5000 ppm. In the typical lumber kiln exhaust, the concentration is highly variable and usually below 1000 ppm. Further, the viscous condensate from the condenser would result in frequent equipment plugging and related maintenance challenges.

Process Controls

Process control or optimization uses proper lumber kiln operation techniques which include the necessary process monitoring instruments, process control equipment, scheduled equipment inspection and maintenance in accordance with manufacturers' recommendations. Process controls are used to maintain proper moisture and temperature settings to optimize the kiln drying operation releasing moisture and VOCs for each batch cycle. Proper kiln temperature and humidity settings can minimize the VOCs emitted from lumber kilns.

BACT Conclusion: The VOC emissions expected from the new direct-fired lumber kiln are 3.8 lb/MBF, based on industry reference and the means of demonstrating compliance is by process controls optimization. Testing is not warranted and is extremely difficult and costly given the many exhaust points to the atmosphere, and the variable exhaust flow and at low velocity.

Proper operating practices are determined to represent BACT for VOCs for the proposed project. This determination is consistent with the historical BACT determinations listed in the table below for indirect (IF) and direct-fired (DF) lumber kilns.

<u>FACILITY</u>	<u>RBLC ID</u>	<u>DATE</u>	<u>VOC LIMIT</u>	<u>TYPE - CONTROL</u>
Elliot Sawmilling Company	SC-0085	5/2004	4.5 lb/mbf	DF - Work Practices
Joyce Mill	LA-0180	7//2004	367.77 lb/hr 750 tons/yr	IF - Proper Design and Operation
Temple-Inland Diboll Operations	TX-0483	11/2004	30.6 lb/hr 85.35 tons/yr	None Specified
Waldo	AR-0080	1/2005	3.5 lb/mbf	IF - None Specified
Coushatta Sawmill	LA-0181	7/2005	28 lb/hr 122.6 tons/yr	IF - None Specified
Potlatch Corporation Ozan Unit	AR-0083	7/2005	3.5 lb/mbf 119 lb/hr	IF - Proper Operation
Skagit County Lumber Mill	WA-0327	1/2006	54 T/YR	Computerized Steam Management System
Wright City Complex	OK-0113	7/2006	4.8 lb/mbf	None Specified
Albertville Sawmill	AL-0235	4/2008	7 lb/mbf	IF - Kiln I/M Procedures
Bibler Brothers Lumber Company	AR-0101	8/2008	3.8 lb/mbf 46.5 lb/hr/kiln	DF - 2 Continuous units None Specified
North Florida Lumber Bristol Sawmill	FL-0315	8/2009	116.93 tons/yr	IF - Best operating practices
Joyce Mill	LA-0252	8//2011	6.2 lb/mbf	IF - Proper Design and Operation
West Fraser Lumber Mill	TX-0607	12/2011	3.5 lb/mbf	Proper Design and Operation
Simpson Lumber	GA-0146	4/2012	3.83 lb/mbf 3.93 lb/mbf	DF -- Kiln 3 Proper Operation DF -- Kiln 4 Proper Operation
Conway Plant	SC-0135	9/2012	4.2 lb/mbf	IF - Proper Design and Operation
Newberry Lumber Mill	SC-0151	4/2013	3.76 lb/mbf	DF - Proper Design and Operation
Opelika Lumber Mill	AL-0257	9/2013	3.6 lb/mbf	DF - Proper Design and Operation

6.0 AMBIENT AIR QUALITY REVIEW FOR VOCs

The photochemistry underlying the generation of ground-level ozone is very complex and not well understood. As such, no air quality dispersion model has yet been developed which is capable of accurately predicting ambient ozone concentrations resulting from the precursor emissions of a single facility. Consequently, the analysis of the potential impacts of VOC on ground level ozone generation must be conducted by other means.

The analysis herein is based on the evaluation of existing ambient monitoring data for the area, as well as a qualitative evaluation of the increase in the ozone precursor pollutants.

VOCs are precursors to ozone formation and so the proposed project's impact on ozone formation is discussed below.

The following background concentrations at the Wakulla County ozone monitor, the closest monitor to the site, demonstrates that the area is currently in attainment with the 8-hour ozone standard.

<u>YEAR</u>	<u>4th Highest 8-hr Avg. (ppb)</u>	<u>DATE</u>
2013	60	3/28
2012	64	4/12
2011	64	9/13
2010	68	10/8
OZONE STD.	75	

Based on this information, site-specific ozone monitoring is not warranted.

It should be noted that generally, the ambient air impacts analysis is conducted based on potential emissions of the emission units evaluated. The potential VOC emissions for the emission units are presented below.

Boiler, Potential VOCs = $402960 \text{ MMBtu/yr} \times 0.017 \text{ lb/MMBtu} \times \text{ton}/2000 \text{ lbs} = 3.4 \text{ tpy}$

Kiln 1, Potential VOCs = $63,000 \text{ MBF/yr} \times 3.8 \text{ lb/MBF} \times \text{ton}/2000 \text{ lbs} = 119.7 \text{ tpy}$

Kiln 2, Potential VOCs = $33,000 \text{ MBF/yr} \times 3.8 \text{ lb/MBF} \times \text{ton}/2000 \text{ lbs} = 62.7 \text{ tpy}$

Shutdown EUs Total VOCs = $(3.4 + 119.7 + 62.7) \text{ tpy} = 185.8 \text{ tpy}$

New Kiln 4, Potential VOCs = $90,000 \text{ MBF/yr} \times 3.8 \text{ lb/MBF} \times \text{ton}/2000 \text{ lbs} = 171.0 \text{ tpy}$

TOTAL Net VOCs = -14.8 tpy

The proposed project will result in a reduction of potential VOC emissions of around 15 tpy. However, given the reduced operation rates at the facility over the last few years due to the economic downturn, a comparison of future potential operating rate of the new kiln to the recent operating rates of the units to be shutdown, indicates an increase in actual emissions of around 74 tpy of VOCs.

No adverse ozone impacts are expected to the Class I or II areas as a result of the proposed project since there is a reduction in the potential VOC emissions and the overall facility emissions are small compared to the VOC emissions from other mobile and stationary sources in the County and the surrounding area.

ADDITIONAL IMPACTS

To address air quality related values (AQRV) impacts, which include potential soil and vegetation impacts, the primary aspect considered is that existing ozone levels in the area, based on historical ozone monitoring data, are below the NAAQS. Additionally, it is to be noted that the proposed project will result in a reduction in the potential VOC and NO_x emissions which would be expected to result in less predicted impacts on the environment. Therefore, there is reasonable assurance of protection against decreased visibility, damage to animals, crops, vegetation, and buildings. No adverse impacts are expected on soils or vegetation as a result of the proposed project.

Soils and Vegetation - Based on the discussion in the preceding section, it can be assumed that there will not be any significant adverse impacts to the soils and vegetation as a result of the proposed project.

Growth - The purpose of a growth analysis is to predict how much new growth is likely to occur as a result of the project and the resulting air quality impacts from this growth. No adverse impacts on growth are anticipated from the project since there will be minimal increases, if any, in the workforce growth and associated residential and commercial growth that would be associated with the proposed project.

Visibility - Visibility impairment is any perceptible change in visibility (visual range, contrast, atmospheric color, etc.) from that which would have existed under natural conditions. VOC emissions do not impact visibility. Therefore, the project is not expected to have any adverse impact on the Class I and Class II visibility.

7.0 CONCLUSION

Based on the discussion presented in this report, there is reasonable assurance that the proposed project will comply with all the applicable air rules and regulations.

Attachment to
Construction Permit Application
Kiln # 4

Direct Fired Track Kiln Specifications

Gilman Building Products

Perry Mill

Perry, Florida

December 2013

KDS

KILN DRYING SYSTEMS &
COMPONENTS, INC.

Toll Free: 800-274-5456
Fax: 828-891-5451

PO Box 643, Arden, NC 28704
email: rgirardi@kdskilns.com

PROPOSAL # 20130125-1-R2

FOR

GILMAN BUILDING PRODUCTS

Perry, FL

**ONE (1) 85'-0" HIGH TEMPERATURE DIRECT FIRED TRACK KILN
WITH RECIRCULATION AIR SYSTEM AND PNEUMATIC TOP BAFFLES**

September 10, 2013

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I. GENERAL SIZING AND DESIGN SPECIFICATIONS

A. KILN SIZING SPECIFICATIONS

- Number of kilns 1
- Building type Double track
- Wall and roof panel type 3" prefab box type panels
- Structural framing Steel
- Kiln width 34'-0" outside
- Kiln length 85'-0" clear inside doors
- Door height 17'-6"
- Arrangement Freestanding

B. HOLDING CAPACITY AND PACKAGE INFORMATION

- Lumber thickness 1.720"
- Package width 8'-0"
- Package length 8'-0" – 20'-0"
- Sticker thickness 3/4"
- Bolster thickness 4"
- Number of layers per package 18
- Package height 44"
- Load height 16'-10" nominal above rails for 2"
(assuming 17" cart)
15'-11" for 4" timbers (green)
15'-7 1/2" after dry
- Stacking arrangement 4 high X 2 tracks
- Stacking efficiency 100%
- Estimated holding capacity 184,320 BF @ 80' of lumber length
188,928 BF @ 82' of lumber length

C. ELECTRICAL REQUIREMENTS

- Voltage 460-volt
- Phase 3
- Cycle 60

D. HEATING SYSTEM

- System type Dry shavings (By Others)
- Btu input per hour/kiln 40,000,000
- Recirculation blower 200 HP Toshiba Class H (By KDS)
VFD by Gilman
Increased blower from Model 807 to 890

E. GENERAL EQUIPMENT DESIGN SPECIFICATIONS

- 150 Fan Deck 11'-8" wide x full length, formed pan combination fan deck/heat duct
- 180 Fan System
 - Type fans Smithco, 8-blade, adjustable pitch
 - Number of fans 10
 - Diameter of fans 76"
 - Horsepower and RPM of motors 40 HP Toshiba Class F, 1,800 RPM
 - Estimated total CFM/kiln 1,000,000 CFM @ 0.75" SP
- 190 Floor baffles Concrete
- 200 Vertical end wall baffles 4 lines, 30" wide, 12-gauge
- 720 Pneumatic baffle system Included
- 290 Vent system
 - Type vents Standard roof vents
 - Actuator Pneumatic, 2 total
 - Number of vents 20
 - Vent size 22" x 22"

- 390 Supply and return ducting
 - Type Steel prefabricated, insulated and sheathed outside the kiln for both supply air and return air
 - Overhead heat system Outlets provided in top of fan deck/duct
- 400 Center reheat system 20 reheat downcomers
- 440 Control system
 - Thermocouples (By KDS)
 - By Others**
 - 6 total dry bulbs
 - 2 wet bulbs
 - 1 for supply duct
- 470 Motor controls
 - Type MCC (By Others)

II. ENGINEERING SERVICES

099 ENGINEERING SERVICES

Kiln Drying Systems & Components, Inc. will supply all required design and specifications for the proposed equipment. This will include:

1. Design of proposed equipment.
2. All required installation prints and specifications required to install the proposed equipment.
3. Overall project scheduling, coordination, and supervision.
4. Foundation prints suitable for bidding and construction purposes designed for 2,500 PSF soil.



KDS DIRECT FIRED KILN & SAWDUST BURNER WITH SILO & UNLOADER

III. CONCRETE FOUNDATIONS, EMBEDMENTS, AND STEEL STRUCTURE

100 CONCRETE FOUNDATIONS

All concrete, reinforcing, and expansion materials required for the kiln and burner foundations will be **supplied by the Purchaser**. KDS will provide foundation drawings for the kiln, infeed and outfeed slabs.

Foundation work is to include concrete floor baffles which will be shown on the foundation drawings.

Floor baffles will be made of concrete for reduced maintenance and improved air flow. Baffles will be designed to come within two inches of the side of the load and will be one inch below the bottom layer of lumber.

110 GRATING, TROUGHS AND PITS

KDS foundation drawings will include any required drains, troughs and pits. **Grating covers are considered part of the concrete work supplied by the Purchaser.**

120 KILN EMBEDMENTS

KDS will provide all anchor bolts and any embedments that are required for the proposed equipment. All rail required for the kiln foundation to be **supplied by the Purchaser.**

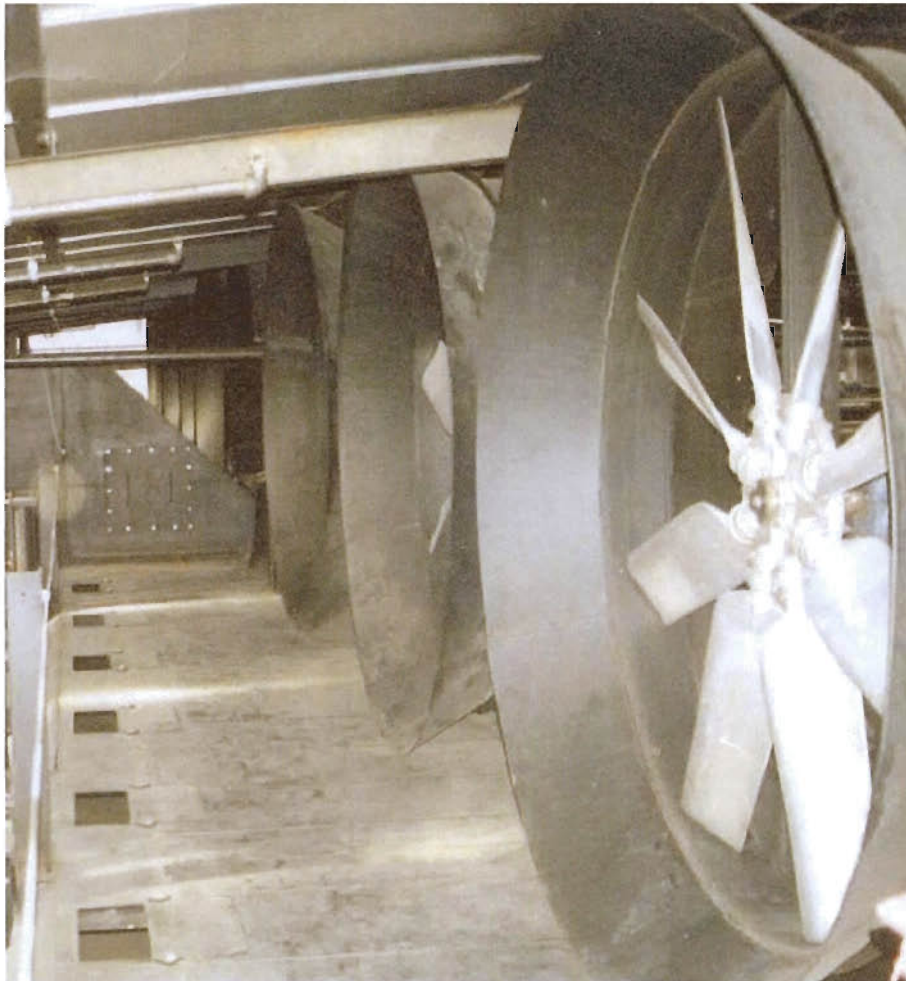
140 STEEL KILN STRUCTURE

All required structural members will be supplied by KDS and will be prefabricated for bolt-together field assembly.

Side wall columns will be fabricated out of 8" @ 18 # wide flange beams. Purlins will be 4" x 4" x 1/4" structural angle, and will be located on approximately 5'-0" spacings for support of the housing panels. Trusses are factory welded using 6" @ 15 # and 6" @ 25 # wide flange beams.

All structural steel components in the kiln will be painted for corrosion resistance. After the installation is completed, any areas required touch-up will be re-coated before start-up.

Factory pre-assembly of structural sections provides for quicker, more efficient installation on site.



HEAVY DUTY FAN WALL WITH ROLLED CHANNEL ORIFICE & INLET/OUTLET CONES

IV. AIR DELIVERY SYSTEM

150 FAN DECK

A heat fan deck is provided with adjustable heat outlets for balancing the kiln. The deck is fabricated with 7-gauge sides, 14-gauge top decks, and a 10-gauge bottom plenum.

160 FAN WALL

A 7-gauge fan wall will be provided.

170 FAN HOUSINGS

The fan housing assemblies will be constructed with 7-gauge panel frames and 8" rolled channel orifices. The orifice opening is held to a tight tolerance to minimize the clearance between the tip of the fan blade and the opening of the orifice to assure that a minimum of air flow is lost around the outside of the fan.

710 FAN CONES

Double tapered 30° fan cones will be provided to assure a smooth air flow and maximum efficiency through the fan. The cones will produce additional air flow without additional horsepower and will provide faster drying times.

180 FANS

The system is designed with 76" diameter Smithco fans. The fans are six-bladed, aluminum, reversible, adjustable pitch, propeller type fans. The fan speed will be approximately 900 RPM and will be driven by 40 HP motors.

180 MOTORS

Motors are Toshiba Class F, 40 HP, 1,800 RPM TEFC.

180 EXTERNAL FAN DRIVES

The fan shafts are 2-7/16" diameter, turned, ground and polished. Each shaft is supported by four (4) SKF high temperature bearings with a minimum design life of 100,000 hours at 300°F. One bearing is a non-expansion type; the others are expansion type. The bearings and shaft are supported by an 8" x 6" x 1/4"

structural steel tube. The horizontal drive system extends through the side wall and includes a seal assembly at the side wall penetration.

The belts and sheaves will be **Gates polychain drives, which eliminate any belt slippage** and maintain more consistent air velocities. The fan belt guard has a closed back and meets current OSHA standards.

490 CATWALK

A catwalk runs along the end of the kiln and down the length of the kiln to provide access to the fan deck and motors. The catwalks are 5'-0" wide along the sidewall to access the fan motors and 3'-0" at the end wall to access both sides of the fan deck. Access to the catwalk is one set of stairs and one OSHA approved ladder with cage.

200 END WALL BAFFLES

Four sets of end wall baffles will be provided that will accommodate up to a 33" load variation on each end of the kiln. Baffles are 12-gauge steel. All hinges and hardware will be supplied with a positive method of holding the baffles in a closed position.

720 PNEUMATIC TOP BAFFLE SYSTEM

Two sets of pneumatic baffles are included per kiln. Each track will have multiple baffle sections. Each baffle has a 12-gauge bottom sheet, covers 8'-3" of width, with lengths to match the full length of the kiln. The baffles are fabricated with rigid 4" channel frames and lifted with dual 6" diameter x 14" stroke pneumatic actuators with high-temperature 500° Vi-ton seals. The baffles lower by gravity action automatically as the lumber shrinks during the charge.

The KDS version of this design also provides angled rigid baffle sections extending from the fan deck and full-length piano hinges to connect them to the horizontal baffle sections. This arrangement provides maximum blockage of air to eliminate short-circuiting of air over the load.

All required pneumatic piping and fittings are included to the outside endwall of each kiln. Manual ball valves will be provided to raise or let down the baffles.

Note: Pneumatic baffles and actuators are redesigned for 1'-0" load height variation between 15'-11" to 16'-11" green.



PNEUMATIC OVERHEAD BAFFLES KEEP TOP LAYERS FLAT AND HAS SHOWN IMPROVEMENTS OF 1% TO 2% IN 2 & BTR

V. HOUSING EQUIPMENT

240 KILN PANELS

All required panels, sealants, and non-corrosive fasteners are included. Roof and wall panels are **3" thick**, with rigid foam insulation providing an **R-value of 24**. Panels will be enclosed with .032 stucco embossed aluminum.

Panels will be joined together using an aluminum extrusion joint sealed with high temperature extrusion tape. Stainless steel fasteners will be used to attach the panels to the structure.

240 HORIZONTAL PANEL TIE BARS

At each horizontal girt on the kiln side wall, there will be a 1/4" x 3" wide aluminum tie bar through-bolted with 1/4" stainless steel bolts. **These tie bars will strengthen the panel system to minimize panel bulging from fan pressure.**

242 FLASHINGS AND BASE SEAL

All required aluminum flashings are provided for the outside of the kiln eaves, gable ends and wall corners. These flashings are sealed with high temperature sealant tape and **screwed through** to the internal structure with stainless steel screws for an extremely tight seal and durable connection.

The base of the kiln is sealed with a 2-part elastomeric poured sealant, providing a vapor tight seal.

260 HIGH EFFICIENCY SIDE PIVOT DOORS

Heavy-duty aluminum extruded door frames and aluminum H-beam intermediate supports provide a strong assembly to enclose and seal the insulated door panels. The perimeter door frame extrusion is designed with a special channel to slide KDS' exclusive silicone gasket into place without the need for fasteners.

The silicone gaskets stay pliable at high temperatures to provide a good seal around the perimeter of the doors so that conditions inside the kiln can be properly maintained.

Doors will be 3" thick and insulated with rigid foam insulation for R-value of 24. The insulation is completely enclosed in prefabricated aluminum panels.

280 ACCESS DOORS

The kiln will include (6) access doors. Four will be located in the ground level walls for operator access into the kiln plenum chambers. Two will be in the gable end wall for access to both sides of the fan wall and fan deck. Access doors will have **aluminum frames** and will be insulated and gasketed with **high temperature silicone gaskets**.

Each door has a latch that can be opened from the outside and inside of the kiln.



KDS KILN SIDEWALL WITH TIE BARS ASSURING FLAT PERMANENTLY SECURE PANELS

VI. VENTING SYSTEM

290 STANDARD ROOF VENTS

There will be two lines of vents running the length of the kiln, one on each side of the fan wall. Each line will be opened and closed by a pneumatic actuator with all mounting assemblies, rigid aluminum conduit, linkage and fasteners included.

All connections from the kiln control system, required mounting flanges, sealants and stainless steel fasteners are included. Vents will be of all aluminum construction and no vent will be located over any structural member.



KDS RECIRCULATION AIR SYSTEM, MIXING CHAMBER AND BURNER SYSTEM

VII. NEGATIVE RECIRCULATING SYSTEM

390 KILN SUPPLY AIR DUCT

The supply air duct is fabricated from 10-gauge sheet and 3" angle flanges. This duct supplies air to the plenum from the recirculating blower. This duct is insulated outside the kiln with 3" thick insulation and covered with 0.032" thick stucco embossed aluminum.

400 AERODYNAMIC HEAT DOWNCOMERS BETWEEN TRACKS

High flow aerodynamic downcomers are provided to reheat the kiln air prior to entering the second track of lumber. Each downcomer is provided with a manual adjustment for balancing the air volume from end to end of the kiln. The downcomers are designed for enhanced airflow with minimal disruption.



AERODYNAMIC DOWNCOMMERS PROVIDE REHEAT WITH MINIMAL AIR FLOW DISRUPTION

410 RETURN AIR DUCT AND DAMPER

A return air duct is provided from the kiln side wall to the reheat mixing chamber. The return duct is provided with a set of modulating damper blades that are operated by a Barber Colman pneumatic actuator. The modulating dampers provide the ability to accurately control duct temperatures in both fan directions and the duct is designed for maximum aerodynamic air flow.

420 MIXING CHAMBER

The mixing chamber is fabricated from 10-gauge sheet, steel angle, and channel framing. The chamber is insulated with 3" thick mineral wool and covered with 0.032" thick stucco embossed aluminum.

430 RECIRCULATION BLOWER (MODEL 890)

One recirculation blower is provided to furnish heated air into the kiln building. Return air from the kiln is reheated and then blown back into the kiln heat distribution system. A Toshiba Class H TEFC motor is included along with a sheave and belt drive. The blower is insulated with 3" thick mineral wool and covered with 0.032" thick stucco embossed aluminum.

VIII. KDS CONTROL SYSTEM

440 PLC CONTROL

The kiln and burner controls will be provided **by Others**.

450 KILN CONTROL ACCESSORIES

Each kiln will have the following control accessories:

1. 6 thermocouples for measuring dry bulb temperature.
2. 2 thermocouples for measuring wet bulb temperature.
3. 2 stainless steel wet bulb water boxes for the wet bulb temperature sensor complete with water metering valve, drain, and all required copper tubing and fittings for water supply to the wet bulb water box from the Purchasers water stub-up just outside the kiln at each water box location.
4. 50 wet bulb wicks.

470 KILN MOTOR CONTROLS (PROVIDED BY OTHERS)

A motor control center (MCC) is provided By Others.

480 KILN CONDUIT AND WIRE (PROVIDED BY OTHERS)

Conduit will be rigid, threaded aluminum. Flexible liquid-tight conduit will be used at termination of motors. The minimum size of any conduit will be 3/4". Conduit will be reamed and/or plastic bushed. Conduit fittings will be threaded with gasketed covers. Only standard approved couplings will be used. Proper compound/lubricant will be applied to all threaded joints.

NOTE: KDS does not provide the equipment or labor for providing a disconnect within sight of the motors on the kiln fans. (Ref: NEC 430-86-A&B.)

IX. INSTALLATION SERVICES

INSTALLATION SERVICES

Installation will be done under KDS' contract. KDS has included all required equipment to install the proposed dry kiln, including crane with the exception of a forklift. A forklift will be required throughout the installation and, if one of the mill's lifts will not be available, one will need to be rented by the Purchaser.

The burner system and installation is By Others.

This proposal is based on the use of non-union labor for the installation. If union labor is required, the contract cost will have to be negotiated.

SYSTEM START-UP

When the installation is complete, KDS will assist Control Dynamics, Inc, with the startup of the equipment and train personnel on the proper maintenance and operation of the system.

1. Adjust fan pitch for maximum air velocity and motor efficiency.
2. Verify all control system outputs to provide proper sequencing of all kiln functions.
3. Check all mechanical components to assure proper operation including all critical fasteners for proper torque.
4. Start up the equipment with mill personnel to familiarize them with proper operation and maintenance procedures.
5. **KDS' personnel will be on site until all equipment is started up. Startup services are a part of this contract, and no additional charges will be billed to the Purchaser for these services.**

RESPONSIBILITIES OF PURCHASER

1. Obtain all required building and other applicable permits and/or fees, as well as any requirements for P.E. stamps.
2. Provide all site preparation to assure a minimum soil bearing capacity of 2,500 PSF.
3. Install foundations per KDS specifications. **All concrete work must be done before KDS can begin installation.** Provide all reinforcing bars and kiln rail in foundation.
4. Receive and protect materials prior to the start of construction. Materials shall be stored within 150' of the work site when construction begins.
5. Provide sufficient 120-volt power at the kiln(s) location for use by KDS installation personnel, with a minimum of eight (8) power receptacles fed by two (2) minimum 30 amp breakers.
6. Provide sanitary facilities and drinking water for construction personnel.
7. Inspect all items for shipping damage, note the bill of lading and notify KDS within forty-eight hours of receipt of damaged shipment. KDS will not be responsible for any damages that have not been handled as described above. Individual boxes do not have to be opened for inspection.
8. KDS will keep the work area reasonably clean of all debris resulting from our work and place it in a receptacle provided by and removed by the Purchaser.
9. Provide any required fire protection and/or sprinkler systems.
10. Provide a control room suitable for computer controls with climate control and all required lighting and wiring.
11. Delivery of all 460-volt, 3-phase electrical utilities, properly distributed and grounded to the incoming lugs of all electrical panels, including main disconnects as required.
12. All required kiln and burner controls, MCC's, VFD's, wire, conduit, and electrical installation.
13. Provide and install 110-volt breakers and single phase control power into the control panel for each kiln. Each kiln should be fed from its own breaker.

14. Provide a clean water supply at a minimum of 30 PSIG with a shut off valve to each side of the kiln at the wet bulb locations and at the water pit area of the burner.
15. Provide any required forklift services during installation. If mill lift is not available at all times, one will need to be rented by the Purchaser.
16. Provide clean, dry control air at 60 PSI to KDS' pneumatic control panels.
17. The pneumatic baffle option requires a 100 PSI air supply. This air system will be separate from the control air specified above and will need to be delivered to the inlets of the ball valves provided by KDS.
18. Supply any required welding gases during construction.
19. Provide kiln trams or cars for moving lumber in and out of kiln.

PLEASE NOTE:

ANY ADDITIONAL COSTS THAT ARE ADDED TO THE PROJECT, DUE TO REQUIREMENTS, PROCEDURES, ETC., IMPOSED BY THE LOCAL OR STATE GOVERNMENTS, INCLUDING, BUT NOT LIMITED TO, ENGINEER'S STAMPS, ARCHITECT'S SERVICES, ADDITIONAL DRAWINGS OR ANY OTHER SPECIAL REQUESTS, ARE NOT INCLUDED IN THIS PROPOSAL. THESE COSTS WILL BE ADDED AT A COST + 15% BASIS.

X. PRICE SUMMARY

Kiln Drying Systems & Components, Inc., presents this proposal for the equipment and services listed in the attached specifications for the prices, terms, and conditions listed on this document.

Description	Installed Price
One (1) 85' high temperature kiln, high performance cones, heat recirculating system with Class III blower, and Culp baffles, with mechanical installation (control system not included)	\$ 781,000
Culp license for use of patents	\$ TBD

All equipment is quoted FOB origin. **Freight is not included.** Purchaser is responsible for paying all applicable local, state, federal, and use taxes.

Prices quoted are firm for 30 days.

Target delivery date: April 1, 2014 (assuming order and down payment are received by September 13, 2013)

Delivery times are from receipt of down payment check and are subject to backlogs at the time the order is placed.

This contract and the attached terms and conditions, which are incorporate herein by reference, are approved and accepted by the following parties.

Approved by Seller:

Approved by Purchaser:

Kiln Drying Systems & Components, Inc.

Gilman Building Products

By: Rob Girardi

By: _____

Title: President

Title: _____

Date: _____

Date: _____

TERMS AND CONDITIONS OF SALE

1. PAYMENT

A cash deposit of 30 percent of the purchase price is required upon placement of an order for the equipment and services contained in this quotation. An additional 65 percent is due in progress payments upon receipt of invoices as the project progresses. The remaining 5 percent is due upon start-up of or offer to start up the equipment, but not to exceed 30 days following the date of the final invoice. Title to all equipment shall remain with Kiln Drying Systems & Components, Inc. until final payment has been received and acknowledged by Kiln Drying Systems & Components, Inc. The material and equipment sold shall remain personal property regardless of the mode of its attachment to real property or the use made thereof; and purchaser shall not sell, mortgage, pledge or otherwise encumber said personal property or any part thereof, nor permit the same to be removed from place of installation, so long as any portion of the purchase price remains unpaid, without Kiln Drying Systems & Components, Inc. prior written consent. A finance charge of 1.5 percent per month, annual percentage rate of 18 percent, will be charged on all overdue accounts. In the event purchaser's account becomes past due, Kiln Drying Systems & Components, Inc. shall have the option to suspend delivery and / or installation and charge purchaser for additional costs arising from such suspension of work. Kiln Drying Systems & Components, Inc. shall have no responsibility to perform warranty work during any time purchaser's account is past due.

2. CREDIT APPROVAL

The purchaser's purchase order will not be accepted by Kiln Drying Systems & Components, Inc. until Kiln Drying Systems & Components, Inc., at its sole discretion, but based on reasonably relevant criteria, shall approve the credit worthiness of the purchaser.

3. INSTALLATION DRAWINGS

Any installation drawings, diagrams or blueprints provided by Kiln Drying Systems & Components, Inc. shall be used only as schematic guides. It is the responsibility of the purchaser to assure that all plumbing, wiring, foundation work, and building associated with the installation of Kiln Drying Systems & Components, Inc. equipment are performed in conformance with local codes and regulations.

4. CONFIDENTIAL INFORMATION

Any proprietary information received from Kiln Drying Systems & Components, Inc. (including, but not limited to, proposals, samples, designs, concepts, and drawings) remains the property of Kiln Drying Systems & Components, Inc. The purchaser shall maintain as secret and treat as confidential all proprietary information received from Kiln Drying Systems & Components, Inc. in performing other work for itself or any third party at any time. The purchaser shall return to Kiln Drying Systems & Components, Inc. all proprietary information upon demand.

5. LIMITED WARRANTY

Any equipment manufactured by Kiln Drying Systems & Components, Inc. under this quotation is warranted to the purchaser against defects in materials and workmanship for a period of one year from date of final invoice. During this period, such defects in materials or workmanship will be repaired or replaced, at the sole discretion of Kiln Drying Systems & Components, Inc., without charge, but only after written notification to Kiln Drying Systems & Components, Inc. of such defects and substantiation that the goods have been installed, maintained and operated in accordance with Kiln Drying Systems & Components, Inc.'s recommendations and standard industry practice. This limited warranty is void if the purchaser repairs or replaces any equipment or part thereof without prior written consent of Kiln Drying Systems & Components, Inc. The purchaser will be responsible for all transportation charges associated with any claim under this warranty. Components not manufactured by Kiln Drying Systems & Components, Inc. shall be covered only by the warranties, if any, of their respective manufacturers. THIS WARRANTY AND KILN DRYING SYSTEMS & COMPONENTS, INC.'S OBLIGATIONS AND LIABILITIES HEREUNDER ARE IN LIEU OF, AND THE PURCHASER HEREBY WAIVES ALL OTHER GUARANTEES AND WARRANTIES AND ALL OBLIGATIONS AND LIABILITIES THEREUNDER, EXPRESSED OR IMPLIED, ARISING BY LAW OR OTHERWISE, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, AND ALL OBLIGATIONS AND LIABILITIES WITH RESPECT TO USE, REVENUE OR PROFIT OR DIRECT OR INDIRECT OR INCIDENTAL OR CONSEQUENTIAL DAMAGES WHATSOEVER. IN NO EVENT SHALL KILN DRYING SYSTEMS & COMPONENTS INC.'S LIABILITIES EXCEED THE PURCHASE PRICE OF THE EQUIPMENT PROVIDED UNDER THIS QUOTATION.

6. RISK OF LOSS

Following start-up, the risk of loss or destruction of, or damage to, equipment and materials to be furnished by Kiln Drying Systems & Components, Inc. shall be on purchaser. In the event that said equipment and material are destroyed or damaged by fire or any other cause whatever, purchaser nevertheless shall be liable to Kiln Drying Systems & Components, Inc. for the full amount of the unpaid purchase price, plus accrued interest. Kiln Drying Systems & Components, Inc. shall not be liable to purchaser for loss, damage or injury to persons, including death, or to property or things of whatsoever kind including, but not by way of limitation, products processed by the use of the equipment, or for damages of any kind or nature including, but not by way of limitation, loss of anticipated profits, occasioned by or arising out of the manufacture, installation, operation use, misuse, nonuse, repair or replacement of said material and equipment or out of the use of any method or process for which the same may be employed. Purchaser shall indemnify and hold harmless Kiln Drying Systems & Components, Inc. for all such claims, damages or injuries, together with reasonable attorney's fees incurred with respect thereto.

7. CONTINGENCIES

Kiln Drying Systems & Components, Inc. shall not be liable to purchaser for any loss or damage suffered by purchaser, directly or indirectly, as a result of Kiln Drying Systems & Components, Inc.'s failure or delay in performance where such failure or delay is caused by fires, labor troubles (including strikes and lockouts), wars, embargoes, government regulations or restrictions of any and all kinds, expropriation of plant by Federal or State authority, interruption of or delay in transportation, inability to obtain materials and supplies, excess of demand for equipment over the available supply, accidents, explosions, acts of God, or other causes of like or different character beyond Kiln Drying Systems & Components, Inc.'s control.

8. OSHA DISCLAIMER

Kiln Drying Systems & Components, Inc. specifically disclaims any warranty for compliance with the Walsh-Healy Public Contracts Act and the Occupational Safety and Health Act of 1970, and regulations promulgated thereunder.

9. CANCELLATION

The purchaser shall have no right to cancel this agreement without Kiln Drying Systems & Components, Inc.'s prior written consent and without paying Kiln Drying Systems & Components, Inc. a cancellation charge equal to the purchase price less any costs not yet incurred by Kiln Drying Systems & Components, Inc. Determination of the purchaser's liability upon cancellation shall be at the sole discretion of Kiln Drying Systems & Components, Inc. and shall include, but not be limited to, any obligations Kiln Drying Systems & Components, Inc. has incurred with its suppliers and the value of any engineering work or manufacturing performed by Kiln Drying Systems & Components, Inc. at the time of cancellation. In no event shall any portion of the deposit received under paragraph 1. of this agreement be refunded to the purchaser.

10. ATTORNEY'S FEES

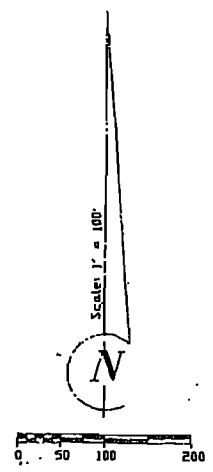
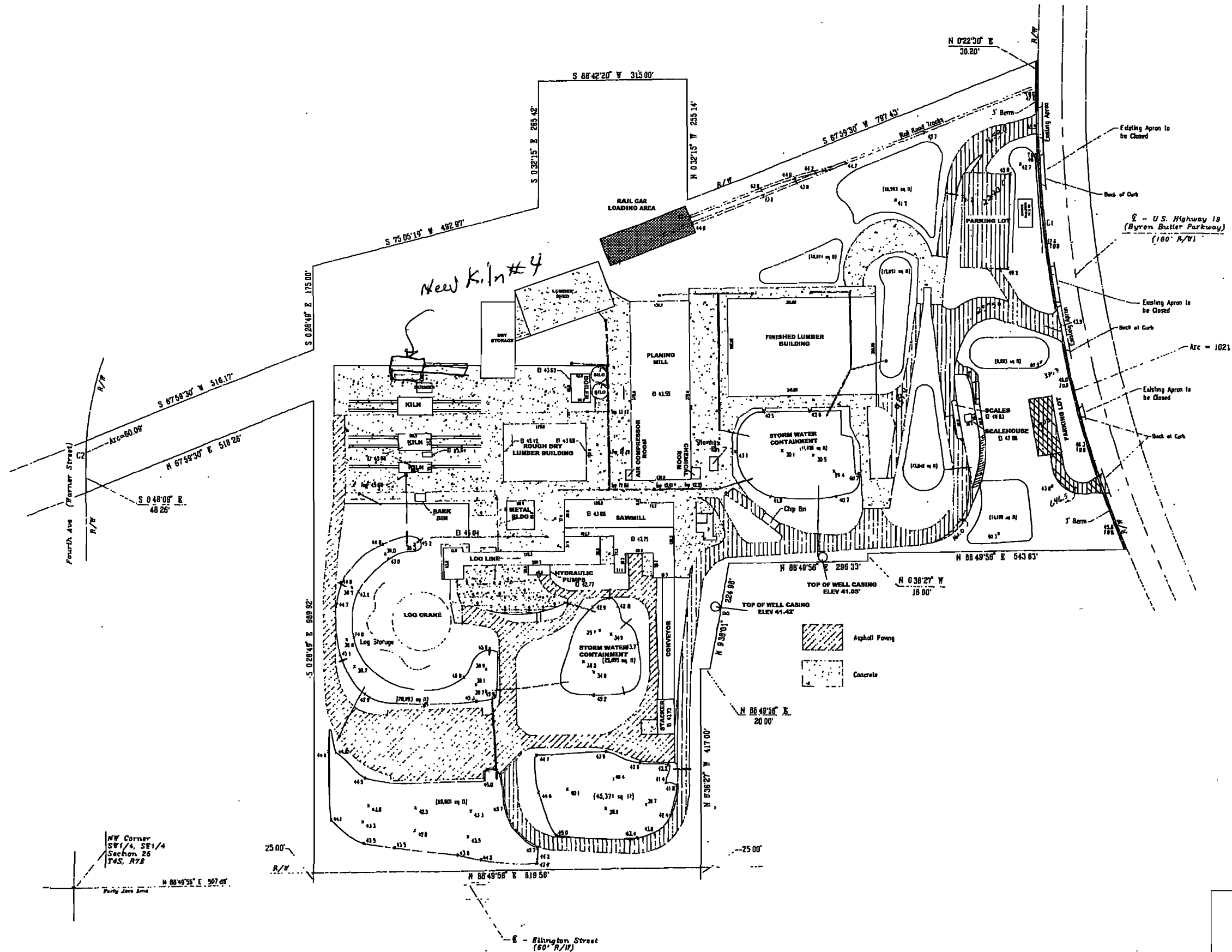
In the event of purchaser's default, purchaser agrees to pay to Kiln Drying Systems & Components, Inc. a reasonable attorney's fee for all sums collected by or through an attorney at law, not to exceed 15% of the amount so collected.


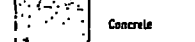

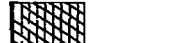
11. ENTIRE AGREEMENT

This agreement constitutes the entire agreement between Kiln Drying Systems & Components, Inc. and the purchaser and supersedes any other written or oral agreements. This agreement is subject to Kiln Drying Systems & Components, Inc.'s written acceptance of the purchaser's purchase order referencing this quote. These terms and conditions shall be deemed incorporated into and become a part of any purchase order, contract or other document of sale executed with reference to Kiln Drying Systems & Components, Inc.'s proposal. Failure to object to these terms and conditions or acceptance of equipment described herein shall also be deemed an acceptance of these terms and conditions by purchaser. Any additional or different terms or conditions in any purchase order or acceptance shall be deemed objected to by Kiln Drying Systems & Components, Inc. and shall be of no effect.

12. GOVERNING LAW

This is a North Carolina agreement and shall be governed by the laws of the State of North Carolina. Both parties agree that site venue for purposes of litigation involving this contract shall be Buncombe County, North Carolina.



- LEGEND**
-  Asphalt Paving
 -  Concrete
 - TOB** TOP OF BERM
 - L/W** RIGHT-OF-WAY
 - C** CENTERLINE
 -  ASPHALT MILLINGS
 -  LIME ROCK

NW Corner
SW 1/4, SE 1/4
Section 26
T4S, R7E

**GILMAN BUILDING PRODUCTS
PERRY FLORIDA**