

Henderson County
Solid Waste



**Informal Bid for Purchase and
Installation of (1) Compost Pre-
Processor**

Due Date: Wednesday, February 3, 2021

Time: 1:00 PM EST

Email: hcpurchasing@hendersoncountync.gov

NOTICE AND INSTRUCTIONS TO BIDDERS

County of Henderson
Doug Guffey-Purchasing Agent
Phone: 828.694.5023
Email: hcpurchasing@hendersoncountync.gov
Historic Court House Annex
113 N. Main Street
Hendersonville, NC 28792

Bids are being sought by Henderson County for the furnishing and installation of **(1) compost pre-processor** as specified. This is an informal bid according to NCGS § 143-131. The bid will be awarded based upon the lowest responsible, responsive bidder standard. **The budget for this project is \$48,600.00.** Bids will be due on **Wednesday, February 3, 2021 at 1:00 PM EST.** Bid(s) must be returned on the attached proposal sheet showing unit prices fully extended and the proposal page completed in its entirety.

Equipment must meet all specifications and be the kind and type specified, or an approved equivalent. A manufacturer's build sheet of the proposed equipment shall be made available at the request of Henderson County in addition to the completed specifications. All bids shall include delivery time and the price quoted must be based on delivery to Henderson County, North Carolina. Quoted price(s) should not include any sales or usage taxes but should reflect the actual bid price of the equipment.

If an error or omission occurs bidder(s) must submit in writing no more than seventy-two hours after the bid opening, a request to withdrawal their bid, excluding Saturdays, Sundays, or Holidays for which Henderson County offices are closed.

The County of Henderson reserves the right to reject any and/or all bids received, or to select the bid which, in our opinion, is in the best overall interest of the County.

Complete specifications shall be included on all equipment. Bidder must meet all of the above requirements for bid to be considered.

Doug Guffey, Purchasing Agent

PROPOSAL

The undersigned, as bidder, hereby declares that this proposal is made without connection with any other person, company, or parties making a similar bid or proposal, and that the proposal is in all respects fair and in good faith, without collusion or fraud.

The bidder has carefully examined the annexed form of specifications and instructions to bidders and hereby declares that he will furnish the equipment called for in the manner prescribed in the specifications and instructions to bidders for the following price:

Description of Project	Composter Name & Model	Price
Purchase and Installation of (1) Compost Pre-Processor		

PLEASE NOTE BID PRICES AND SPECIFICATIONS SHALL BE FULLY ENFORCEABLE FOR 90 DAYS AFTER THE BID DUE DATE UNLESS NOTED BELOW

Warranty period: _____

Printed Name of Firm Representative

Name of Firm Submitting Proposal

Signature of Firm Authorized Representative

Firm Address

Title

Telephone Number

Email Address

Henderson County, North Carolina
Solid Waste
Specifications for the Installation and Purchase of (1) Compost Pre-Processor

It is the intent of these specifications to set up minimum requirements for the installation and purchase of (1) compost pre-processor as specified. These specifications must be considered as minimum requirements. If it is necessary to bid alternate equipment or to take exceptions to the specifications as set forth, this must be so stated in your bid. Any reference to a model or brand is only to denote quality and does not mean that equal equipment will not be considered.

Standard Equipment Plus

I. Mixer Specifications

Compliance/Exception

- | | |
|---|-------|
| 1. Mechanical Compost Processor with scale and timer. | _____ |
| 2. Shall have a variable batch size up to 300 ft ³ . | _____ |
| 3. Shall have leachate control. | _____ |
| 4. Shall have mechanical breakdown of material. | _____ |
| 5. Maximum batch time: fully homogenized within
30 minutes. | _____ |
| 6. Shall be capable of greater than 10 batches per day. | _____ |
| 7. Self-unloading with easy machine access to stack. | _____ |
| 8. Non-corrosive material to allow for holding material
during process. | _____ |
| 9. Manual controls, including speed and reverse,
on a single, labeled panel. | _____ |
| 10. Shall be Stationary. | _____ |
| 11. Shall have independent 3-phase electric power source | _____ |

II. Installation

- a. Bidder shall provide a turnkey project inclusive of all labor, materials, supervision, disposal fees, permits, inspections to install (1) compost pre-processor
- b. Install all materials and equipment in accordance with manufacturer's instructions, warranty requirements, and engineered drawings
- c. Contractor must submit a timeline for the beginning and completion of the project
- d. Contractor is to obtain and pay for any and all required permits and inspections. Any deficiencies found in the installation or materials used in the installation which prevents

receiving a green tag from inspectors will be the Contractors responsibility and expense to correct.

- e. Contractor will be responsible for all utility disconnections, reconnections including electrical
- f. Cleanup of all affected work areas shall be completed daily
- g. Henderson County training on all equipment and controls for Solid Waste. Training will include a scheduled walk through seminar for the owner's personnel. This should explain operation diagrams as well as emergency and alarm provisions.
- h. Bidder shall perform work only during regular operating business hours (Monday-Friday 7:00AM to 4:00 PM) unless approved by the Solid Waste Director.

III. Engineered Drawings

- a. Attachment I: Grinder Open Floor Concept

IV. Warranty

- a. The installation services included as part of the work furnished by the contractor or any subcontractors shall be free from any defects in workmanship for a period of two years from the date of final payment
- b. The equipment shall have a minimum warranty of 2 years.

V. Acceptance of Work

- a. Equipment is to be fully functional and operating as intended when the Contractor has completed the project. Contractor shall demonstrate sustained, satisfactory performance of all equipment and systems in a test run of appropriate duration. Henderson County personnel will be notified in advance so that they can be present during the test run.
- b. Equipment shall receive all inspections, certifications and permits required by local and State agencies. Henderson County is to receive written copies of all.
- c. Henderson County is to receive all test reports, warranties, maintenance manuals, product data, and closeout documents.

VI. Delivery

- a. Installation and delivery of the composter will be located at the Henderson County Solid Waste, 802 Stoney mountain Rd, Hendersonville, NC 28791.

VII. Contract

- a. Bidder shall include a proposed contract signed by the bidder and ready for county signature
- b. Contract shall include at minimum the following language:
 - i. Contract shall be interpreted in the State of North Carolina
 - ii. E-verification clause: As a condition of payment for services rendered Contractor shall comply with the requirements of Article 2 of Chapter 64 of the General Statutes. Further, if Contractor provides the services to the County utilizing a subcontractor, Contractor shall require the subcontractor to comply with the requirements of Article 2 of Chapter 64 of the General Statutes as well. Contractor, shall verify, by affidavit, compliance of the terms of this section upon

request by the County.

- iii. Insurance requirements as defined by the County's website entitled Doing Business with Henderson County
https://www.hendersoncountync.gov/sites/default/files/fileattachments/henders_on_county/page/42611/hendersoncountyinsurance_and_bond_requirements.pdf

VIII. Terms and Conditions

- I. **Equal Employment Opportunity.** Except as otherwise provided under 41 CFR Part 60, all contracts that meet the definition of "federally assisted construction contract" in 41 CFR Part 60-1.3 must include the equal opportunity clause provided under 41 CFR 60-1.4(b), in accordance with Executive Order 11246, "Equal Employment Opportunity" (30 FR 12319, 12935, 3 CFR Part, 1964-1965 Comp., p. 339), as amended by Executive Order 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," and implementing regulations at 41 CFR part 60, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor."
- II. **Davis-Bacon Act**, as amended (40 U.S.C. 3141-3148). When required by Federal program legislation, all prime construction contracts in excess of \$2,000 awarded by non-Federal entities must include a provision for compliance with the Davis-Bacon Act (40 U.S.C. 3141-3144, and 3146-3148) as supplemented by Department of Labor regulations (29 CFR Part 5, "Labor Standards Provisions Applicable to Contracts Covering Federally Financed and Assisted Construction"). In accordance with the statute, contractors must be required to pay wages to laborers and mechanics at a rate not less than the prevailing wages specified in a wage determination made by the Secretary of Labor. In addition, contractors must be required to pay wages not less than once a week. The non-Federal entity must place a copy of the current prevailing wage determination issued by the Department of Labor in each solicitation. The decision to award a contract or subcontract must be conditioned upon the acceptance of the wage determination. The non-Federal entity must report all suspected or reported violations to the Federal awarding agency. The contracts must also include a provision for compliance with the **Copeland "Anti-Kickback" Act (40 U.S.C. 3145)**, as supplemented by Department of Labor regulations (29 CFR Part 3, "Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in Part by Loans or Grants from the United States"). The Act provides that each contractor or subrecipient must be prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public work, to give up any part of the compensation to which he or she is otherwise entitled. The non-Federal entity must report all suspected or reported violations to the Federal awarding agency.
- III. **Debarment and Suspension (Executive Orders 12549 and 12689)**—A contract award (see 2 CFR 180.220) must not be made to parties listed on the governmentwide exclusions in the System for Award Management (SAM), in accordance with the OMB guidelines at 2 CFR 180 that implement Executive Orders 12549 (3 CFR part 1986 Comp., p. 189) and 12689 (3 CFR part 1989 Comp., p. 235), "Debarment and Suspension." SAM Exclusions contains the names of parties debarred, suspended, or otherwise excluded by agencies, as well as parties declared ineligible under statutory or regulatory authority other than Executive Order 12549.

Pursuant to Federal Rule (H) above, when federal funds are expended by Henderson County,

the vendor certifies that during the term of an award for all contracts by Henderson County resulting from this procurement process, the vendor certifies that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation by any federal department or agency.

IV. Iran Divestment

Pursuant to G.S. 147-86.59, any person identified as engaging in investment activities in Iran, determined by appearing on the Final Divestment List created by the State Treasurer pursuant to G.S. 147-86.58, is ineligible to contract with the State of North Carolina or any political subdivision of the State. The Iran Divestment Act of 2015, G.S. 147-86.55 et seq.* requires that each vendor, prior to contacting with the State certifies, and the undersigned on behalf of the Vendor does hereby certify, to the following:

- i. That the vendor is not identified on the Final Divestment List of entities that the State Treasurer has determined engages in investment activities in Iran
- ii. That the vendor shall not utilize on any contract with the State agency any subcontractor that is identified on the Final Divestment List
- iii. That the undersigned is authorized by the Vendor to make this Certification

V. E-Verification

Contractors with 25 or more employees as defined in Article 2 of Chapter 64 of the NC General Statutes must verify compliance with the E-verify, NCGS 160A-20.1(b).

VI. Compliance with Purchase Order Terms & Conditions

<https://www.hendersoncountync.gov/county/page/doing-business-henderson-county>

VII. Certificate of Non-Collusion Statement

Vendor certifies under penalty of perjury that its response to this procurement solicitation is in all respects bona fide, fair, and made without collusion or fraud with any person, joint venture, partnership, corporation or other business entity

VIII. Public Record

All bid documents pertaining to this bid are public record unless they are marked as confidential/trade secrets pursuant to NCGS 132-1-1.2. Should a public record request be made for material, which the company contends is not public record as defined by NCGS 132-1.2, it will be the company's duty to defend this in court and indemnify the County.

VIII. Disadvantaged Business/Minority Business Participation

For Disadvantaged Business Enterprise requirements, see Minority Business Participation Guidelines posted under Doing Business with Henderson County at

<https://www.hendersoncountync.gov/county/page/doing-business-henderson-county>

XI. Independent Contractor: The Bidder is and shall be deemed to be an independent contractor in the performance of this Contract and as such shall be wholly responsible for the work to be

performed and for the supervision of its employees. The Bidder represents that it has, or shall secure at its own expense, all personnel required in performing the services under this agreement. Such employees shall not be employees of, or have any individual contractual relationship with, the County.

- XII. Subcontracting:** To subcontract work to be performed under this contract which involves the specialized skill or expertise of the Bidder or his employees, the Bidder first obtains prior approval of Henderson County. In the event the Bidder subcontracts for any or all of the services or activities covered by this contract: (a) the Bidder is not relieved of any of the duties and responsibilities provided in this contract; (b) the subcontractor agrees to abide by the standards contained herein or to provide such information as to allow the Bidder to comply with these standards, and; (c) the subcontractor agrees to allow county, state and federal authorized representatives access to any records pertinent to its role as a subcontractor.
- i. **Sub-bidders:** The Bidder has the responsibility to ensure that all sub-bidders, if any, provide all information necessary to permit the Bidder to comply with the standards set forth in this Contract.
 - ii. **Survival of Promises:** All promises, requirements, terms, conditions, provisions, representations, guarantees, and warranties contained herein shall survive the contract expiration or termination date unless specifically provided otherwise herein, or unless superseded by applicable Federal or State statutes of limitation.
- XIII. Compliance with Laws:** The Bidder understands and agrees that it is subject to compliance with all laws, ordinances, codes, rules, regulations, and licensing requirements that are applicable to the conduct of its business, including those of federal, state, and local agencies having jurisdiction and/or authority.
- XIV. Confidentiality:** As authorized by law, the Bidder keeps confidential any information, data, instruments, documents, studies or reports given to or prepared or assembled by the Bidder under this agreement and does not divulge or make them available to any individual or organization without the prior written approval of the County. The Bidder acknowledges that in receiving, storing, processing or otherwise dealing with any confidential information it will safeguard and not further disclose the information except as otherwise provided in this Contract or without the prior written approval of the County.
- XV. Access to Persons and Records:** The State Auditor and the using agency's internal auditors shall have access to persons and records as a result of all contracts or grants entered into by State agencies or political subdivisions in accordance with General Statute 147-64.7 and Session Law 2010-194, Section 21 (i.e., the State Auditors and internal auditors may audit the records of the contractor during the term of the contract to verify accounts and data affecting fees or performance). The Contractor shall retain all records for a period of six (6) year following completion of the contract or until any audits begun during this period are completed and findings resolved, whichever is later.
- XVI. Choice of Law:** The validity of this Contract and any of its terms or provisions, as well as the rights and duties of the parties to this Contract, are governed by the laws of North Carolina. The Bidder, by signing this Contract, agrees and submits, solely for matters concerning this Contract, to the exclusive jurisdiction of the courts of North Carolina and agrees, solely for such

purpose, that the exclusive venue for any legal proceedings shall be Wake County, North Carolina. The place of this Contract and all transactions and agreements relating to it, and their situs and forum, shall be Wake County, North Carolina, where all matters, whether sounding in contract or tort, relating to the validity, construction, interpretation, and enforcement shall be determined.

- XVII. **Amendment:** This Contract may not be amended orally or by performance. Any amendment must be made in written form and executed by duly authorized representatives of the Agency and the Bidder.
- XVIII. **Severability:** In the event that a court of competent jurisdiction holds that a provision or requirement of this Contract violates any applicable law, each such provision or requirement shall continue to be enforced to the extent it is not in violation of law or is not otherwise unenforceable and all other provisions and requirements of this Contract shall remain in full force and effect.
- XIX. **Time of the Essence:** Time is of the essence in the performance of this Contract.
- XX. **Advertising:** The Bidder may not use the award of this Contract as a part of any news release or commercial advertising.
- XXI. **Gratuities, Kickbacks or Contingency Fee(s):** The Bidder certifies and warrants that no gratuities, kickbacks or contingency fee(s) are paid in connection with this contract, nor are any fees, commissions, gifts or other considerations made contingent upon the award of this contract.
- XXII. **By Executive Order 24, issued by Governor Perdue, and N.C. G.S. § 133-32:** It is unlawful for any vendor or contractor (i.e. architect, bidder, contractor, construction manager, design professional, engineer, landlord, offeror, seller, subcontractor, supplier, or vendor), to make gifts or to give favors to any State employee of the Governor's Cabinet Agencies (i.e., Administration, Commerce, Correction, Crime Control and Public Safety, Natural and Cultural Resources, Environmental Quality, Health and Human Services, Juvenile Justice and Delinquency Prevention, Revenue, Transportation, and the Office of the Governor). This prohibition covers those vendors and contractors who:
- (1) have a contract with a governmental agency; or
 - (2) have performed under such a contract within the past year; or
 - (3) anticipate bidding on such a contract in the future.

For additional information regarding the specific requirements and exemptions, vendors and contractors are encouraged to review Executive Order 24 and G.S. Sec. 133-32.

Vendor agrees to comply with all federal, state, and local laws, rules, regulations and ordinances, as applicable. It is further acknowledged that vendor certifies compliance with all provisions, laws, acts, regulations, etc. as specifically noted above in the Terms and Conditions.

Vendor's Name/Company Name: _____

Address, City, State, and Zip Code: _____

Phone Number: _____ Fax Number: _____

Printed Name and Title of Authorized Representative: _____

Email Address: _____

Signature of Authorized Representative: _____

Date: _____

Attachment I: Engineered Drawings
Grinder Open Floor Concept

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N:\PROJECTS\05530\DWG-G--HENDERSONCOUNTY(PHASE1).DWG 5/27/2020PRJ.3107300P12

ADVANCED COMPOSTING TECHNOLOGIES

GRINDER OPEN FLOOR CONCEPT

52' x 45' BUILDING (PHASE 1)

For: Henderson County
1 Historic Courthouse Square
Hendersonville, North Carolina 28792
P: 828-697-4809

Henderson County

- CAUTION -
 BEFORE STARTING EXCAVATION
 CHECK FOR UNDERGROUND UTILITIES

Index

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NOTES:

- 1 - PLAN SET FOR CONSTRUCTION DRAWINGS AND SPECIFICATIONS.
- 2 - HENDERSON COUNTY IS RESPONSIBLE FOR ALL BIDDING AND PREPARATION OF CONTRACT DOCUMENTS.
- 3 - ADVANCED COMPOSTING TECHNOLOGIES IS RESPONSIBLE FOR FURNISHING ALL AERATION EQUIPMENT, PIPING FOR INSTALLATION BY THE CONTRACTOR AND CUTTING CONCRETE GROOVES.
- 4 - HENDERSON COUNTY IS RESPONSIBLE FOR ELECTRICAL WORK.
- 5 - CONTRACTOR IS TO USE TRUSSES SALVAGED BY HENDERSON COUNTY AND PLACED ON THE GROUND AT THE LANDFILL. HENDERSON COUNTY IS RESPONSIBLE FOR SELECTING UNDAMAGED TRUSSES FOR USE BY THE CONTRACTOR. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE TRUSSES ONCE RELEASED BY HENDERSON COUNTY FOR TRANSPORT AND INSTALLATION.

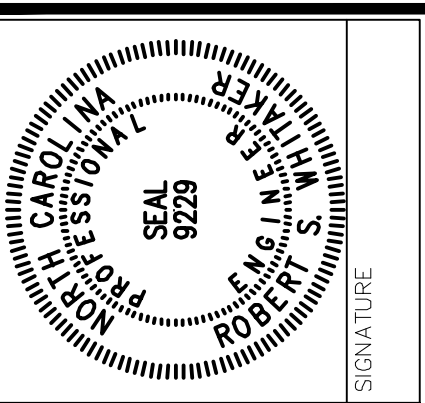
No.	Revisions	Date	By
1	Issued For Bid	3/18/20	RSW
2	Added Electrical Drawings	5/27/20	RSW

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APPROVED:			RSW

DATE



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 ENGINEERING GROUP INC.
 OF NORTH CAROLINA INC.
 ENGINEERS • PLANNERS • SURVEYORS
 9801 Warren H. Abernathy Hwy.
 Spartanburg, SC 29301
 (864) 949-1111

PHASE I
COVER SHEET

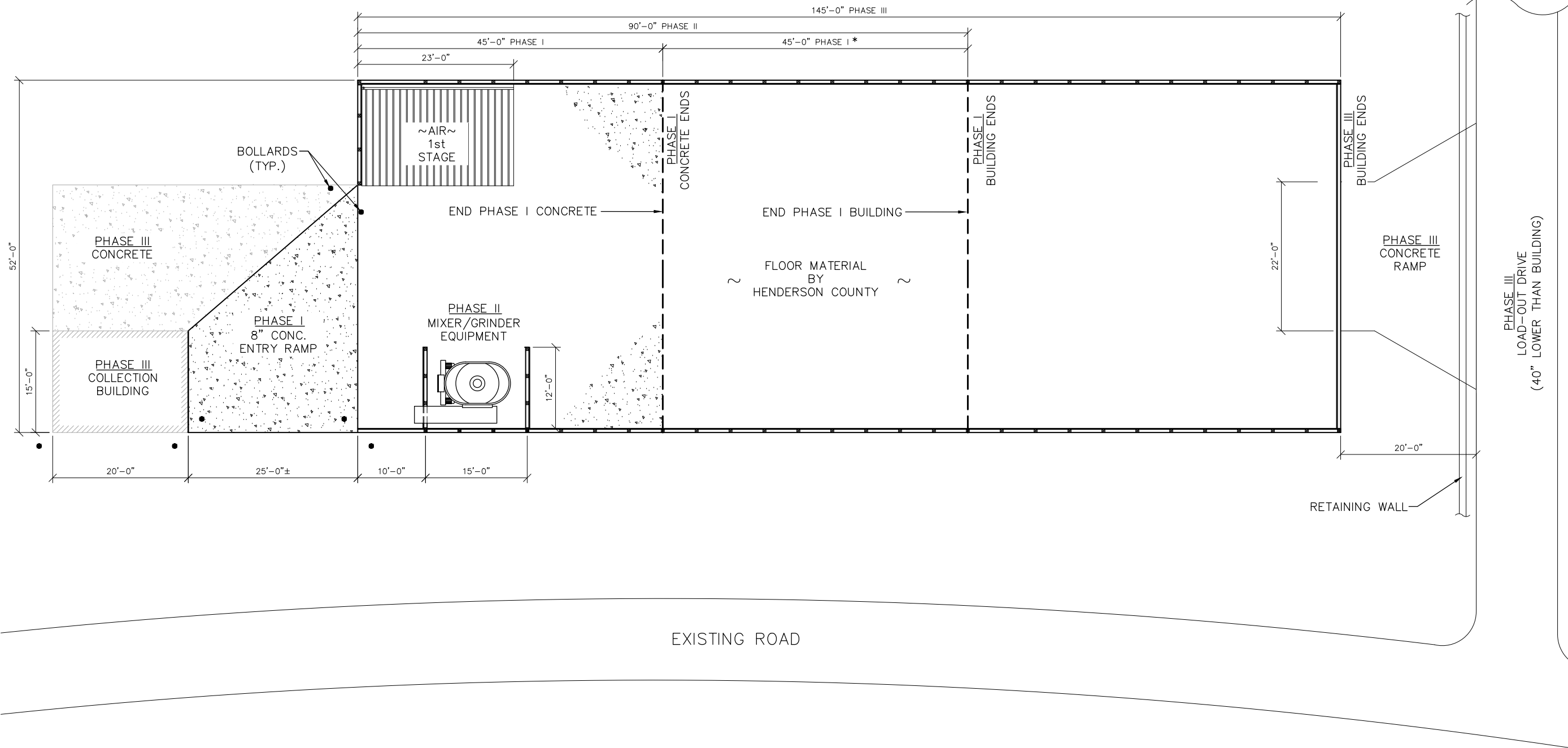
DATE: MAR. 2020 SCALE: AS SHOWN

ADVANCED COMPOSTING TECHNOLOGIES
 P.O. Box 2440
 Candler, North Carolina 28715
GRINDER OPEN FLOOR
52'x45' BUILDING
HENDERSON COUNTY

N.B. NO.	SHEET
REF.	1
PROJECT NO.	OF
05530	

FILE: G-HendersonCounty

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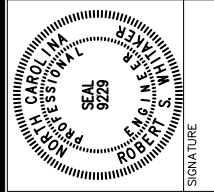


* EXTEND WALLS AND ROOF TO 90'-0".
 FLOOR MATERIAL BY HENDERSON COUNTY.

THREE PHASES OF CONSTRUCTION
 SCALE: 1/8" = 1'-0"

REVISIONS			
NO.	DESCRIPTION	DATE	BY

APPROVALS	
PROJECT ENG: RSW	DESIGNED BY: RSW
DRAWN BY: CKD	CHECKED BY: RSW
APPROVED: RSW	



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 Spartanburg, SC 29301
 (864) 949-1111

SHEET TITLE	PHASE I PHASED CONSTRUCTION	SCALE: AS SHOWN
DATE:	MAR. 2020	

PROJECT
ADVANCED COMPOSTING TECHNOLOGIES
 P.O. Box 2440
 Candler, North Carolina 28715
GRINDER OPEN FLOOR
52'x45' BUILDING
HENDERSON COUNTY

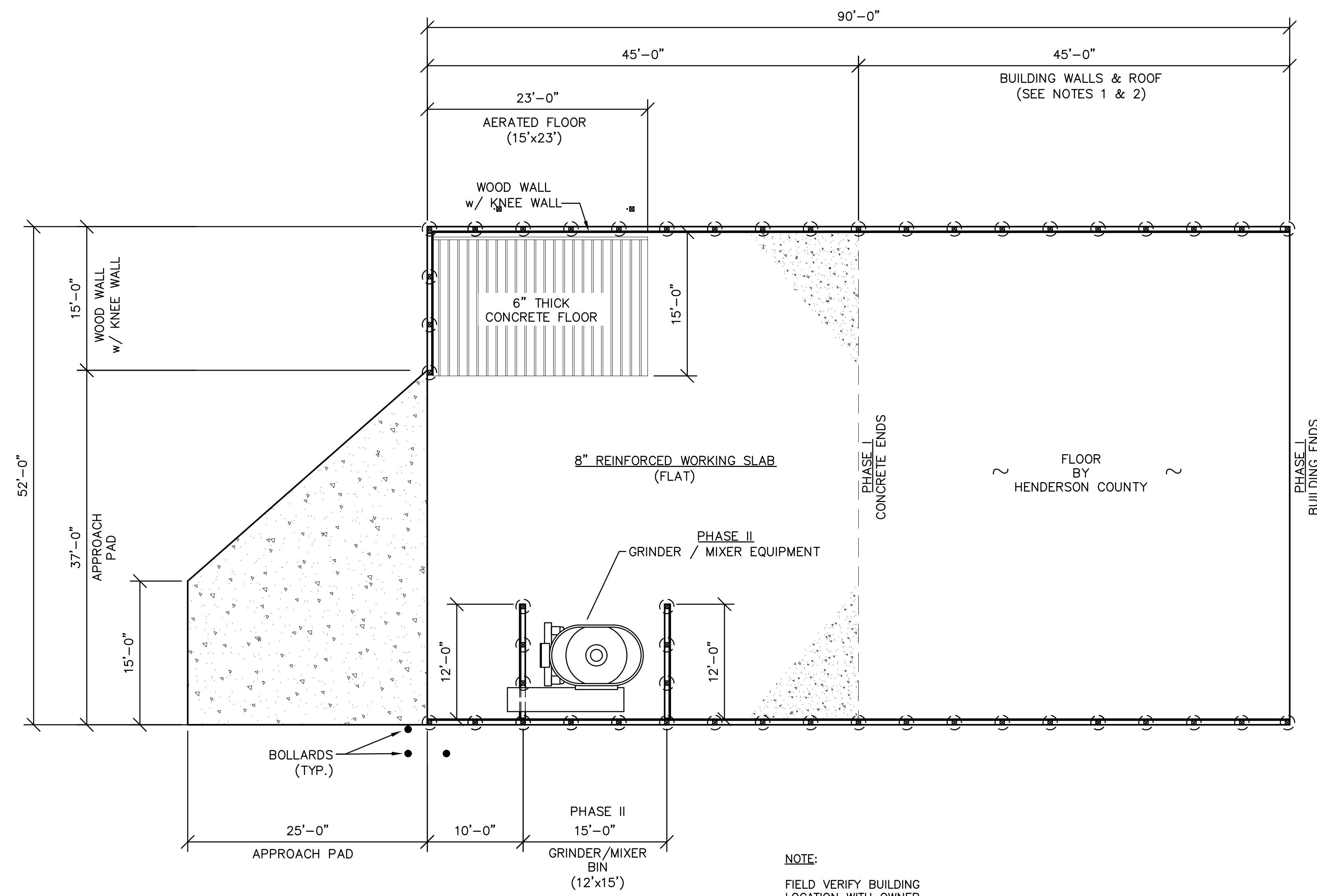
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REF.	
PROJECT NO.	05530
SHEET	2
OF	

FILE: G-HendersonCounty

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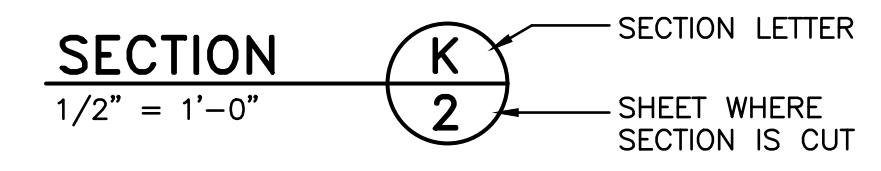
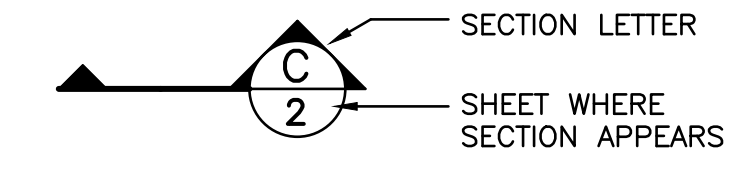
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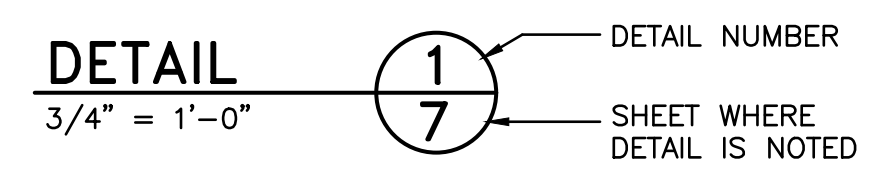
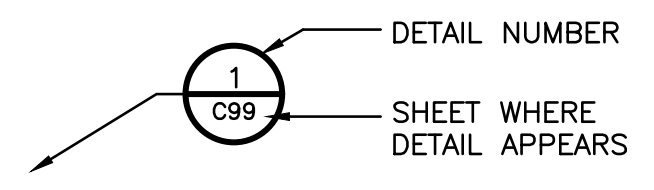


PHASE I CONSTRUCTION
SCALE: 1/8" = 1'-0"

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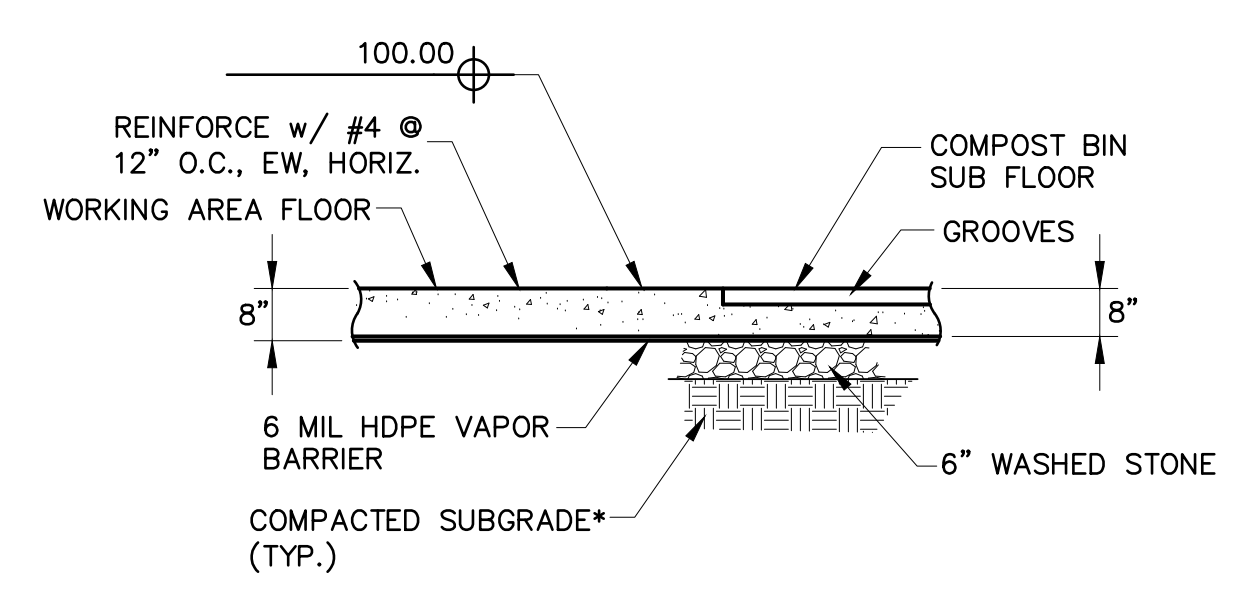
SECTION REFERENCES



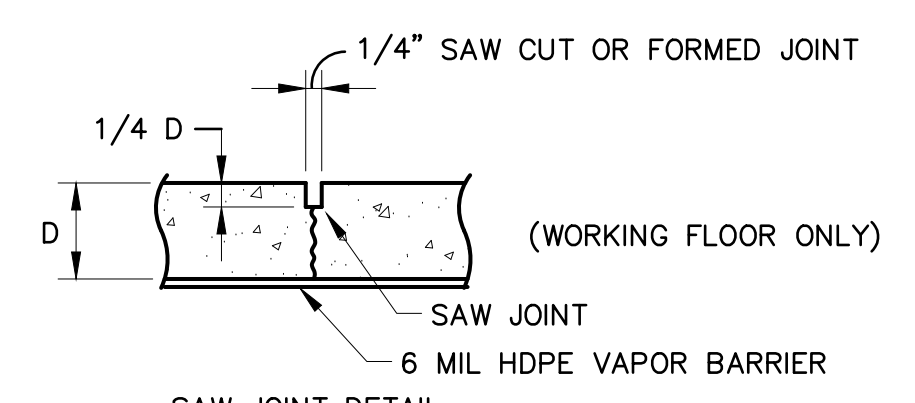
DETAIL REFERENCES

NOTES:

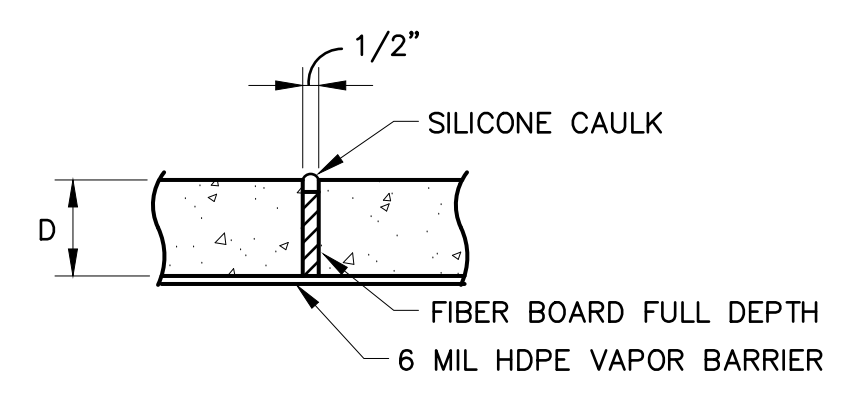
- 1 - SITE PREPARATION BY OWNER.
- 2 - THIS PORTION DOES NOT HAVE A CONCRETE FLOOR OR CURB. MATCH TOP OF SIDE BOARDS AND INSTALL NINE (9) 2"x6" SIDE BOARDS INSTEAD OF ELEVEN (11).



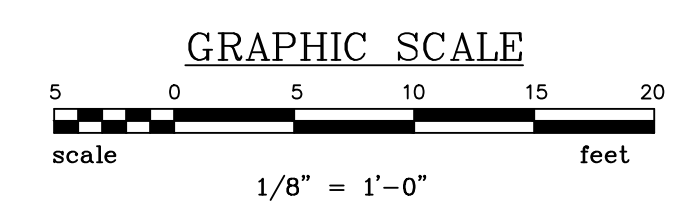
SECTION A
1/2" = 1'-0"



SECTION B
NOT TO SCALE



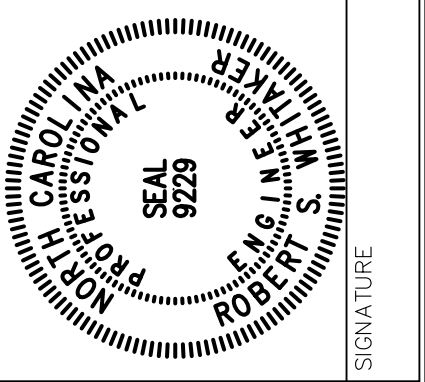
SECTION C
NOT TO SCALE



NO.	DESCRIPTION	DATE	BY

PROJECT ENG.	DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED

DATE



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Spartanburg, SC 29301
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PHASE I
SITE PLAN
AND DETAILS

DATE: MAR. 2020 SCALE: AS SHOWN

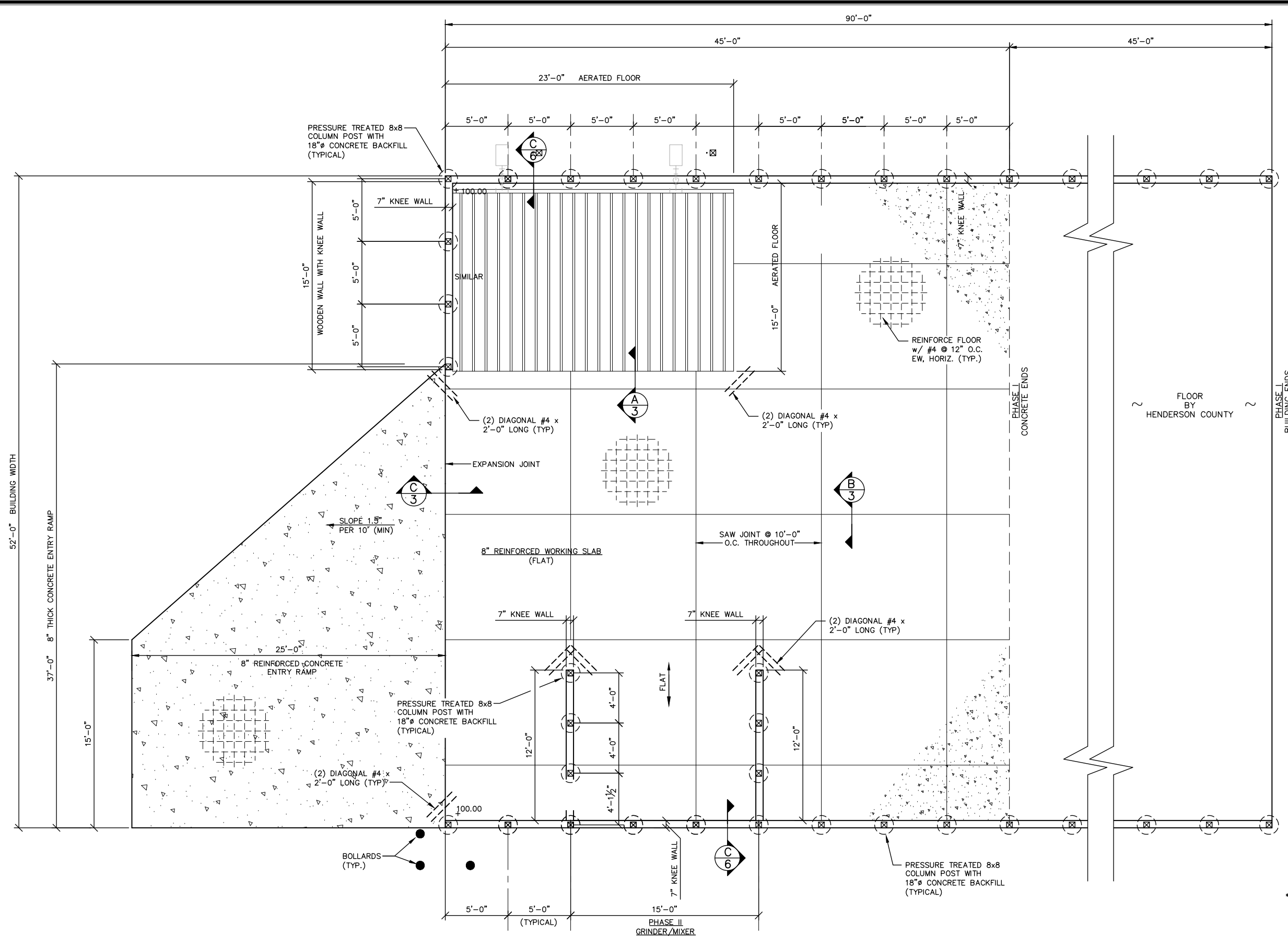
PROJECT
ADVANCED COMPOSTING TECHNOLOGIES
P.O. Box 2440
Candler, North Carolina 28715
GRINDER OPEN FLOOR
52'x45' BUILDING
HENDERSON COUNTY

N.B. NO.	SHEET
REF.	3
PROJECT NO.	OF
05530	

FILE: G-HendersonCounty

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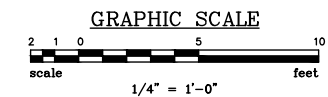
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CONCRETE SLAB PLAN
1/4" = 1'-0"

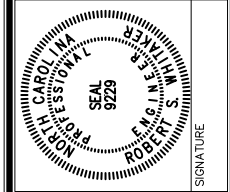
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- *NOTES:**
- SUBGRADE FILL SOILS TO BE COMPACTED TO 95% STANDARD PROCTOR.
 - MINIMUM SUBGRADE BEARING STRENGTH OF SUBGRADE TO BE 2,500 lb/sf.



REVISIONS	
NO.	DESCRIPTION

APPROVALS	
PROJECT ENG:	RSW
DESIGNED BY:	RSW
DRAWN BY:	CKD
CHECKED BY:	RSW
APPROVED:	RSW



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PHASE I
CONCRETE SLAB PLAN
DATE: MAR. 2020 SCALE: AS SHOWN

PROJECT
ADVANCED COMPOSTING TECHNOLOGIES
P.O. Box 2440
Candler, North Carolina 28715
GRINDER OPEN FLOOR
52'x45' BUILDING
HENDERSON COUNTY

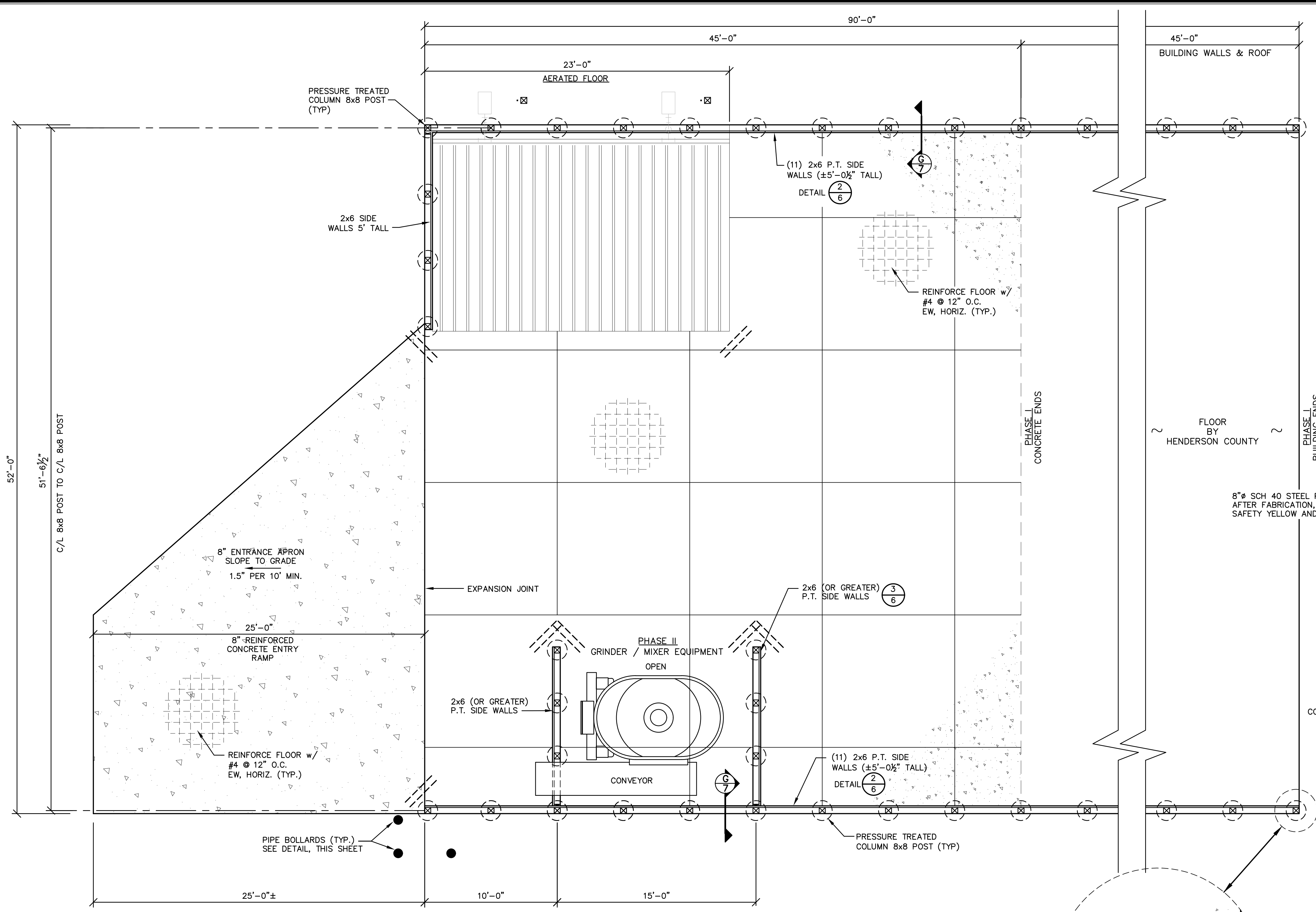
N.B. NO.	
REF.	
PROJECT NO.	05530

FILE: G-HendersonCounty

SHEET	4
OF	

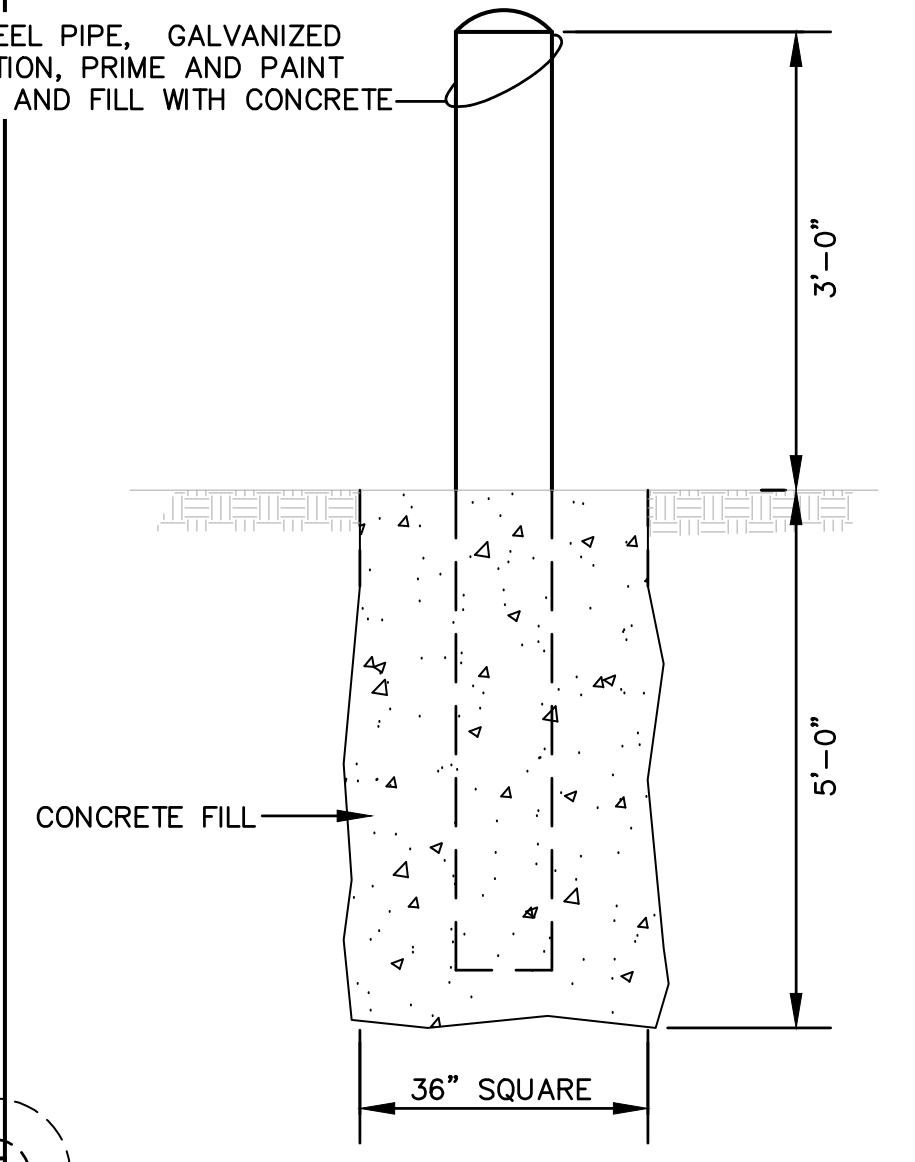
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N:\PROJECTS\05530\DWG\G--HENDERSONCOUNTY(PHASE1).DWG 5/27/2020P/R/S 3/13/22/P/R

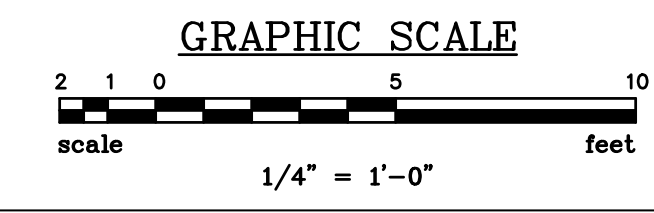
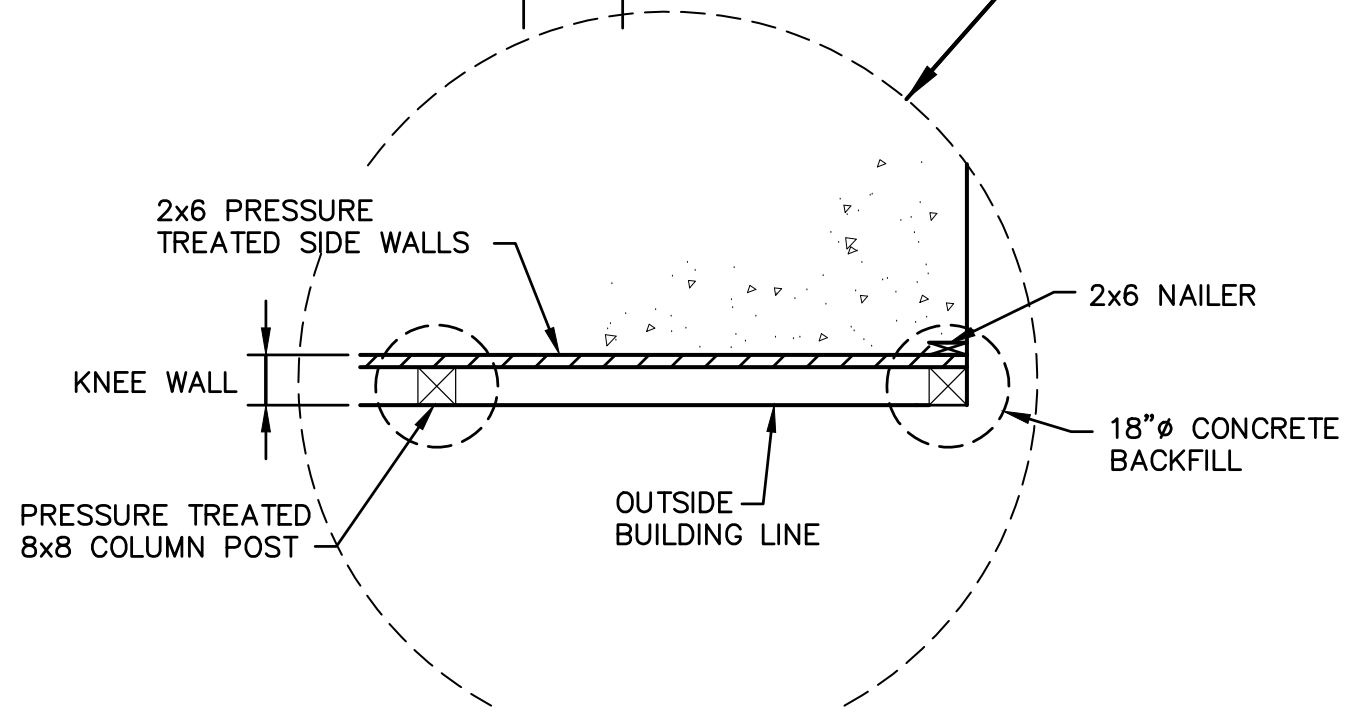


WALL AND POST FRAMING PLAN
SCALE: 1/4" = 1'-0"

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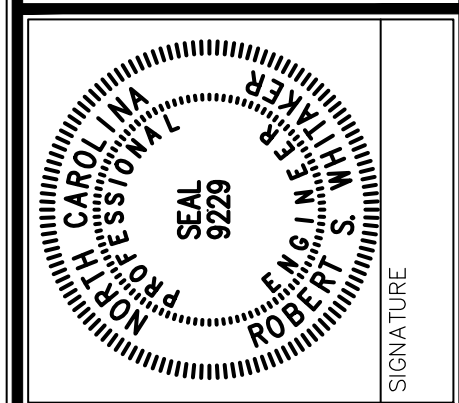


PIPE BOLLARD DETAIL
SCALE: NOT TO SCALE



NO.	DESCRIPTION	DATE	BY

PROJECT ENG:	RSW
DESIGNED BY:	RSW
DRAWN BY:	CKD
CHECKED BY:	RSW
APPROVED:	RSW



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SHEET TITLE: **PHASE I FRAMING PLAN**
DATE: MAR. 2020. SCALE: AS SHOWN

PROJECT: **ADVANCED COMPOSTING TECHNOLOGIES**
P.O. Box 2440
Candler, North Carolina 28715
GRINDER OPEN FLOOR
52'x45' BUILDING
HENDERSON COUNTY

N.B. NO. REF. PROJECT NO. **05530**

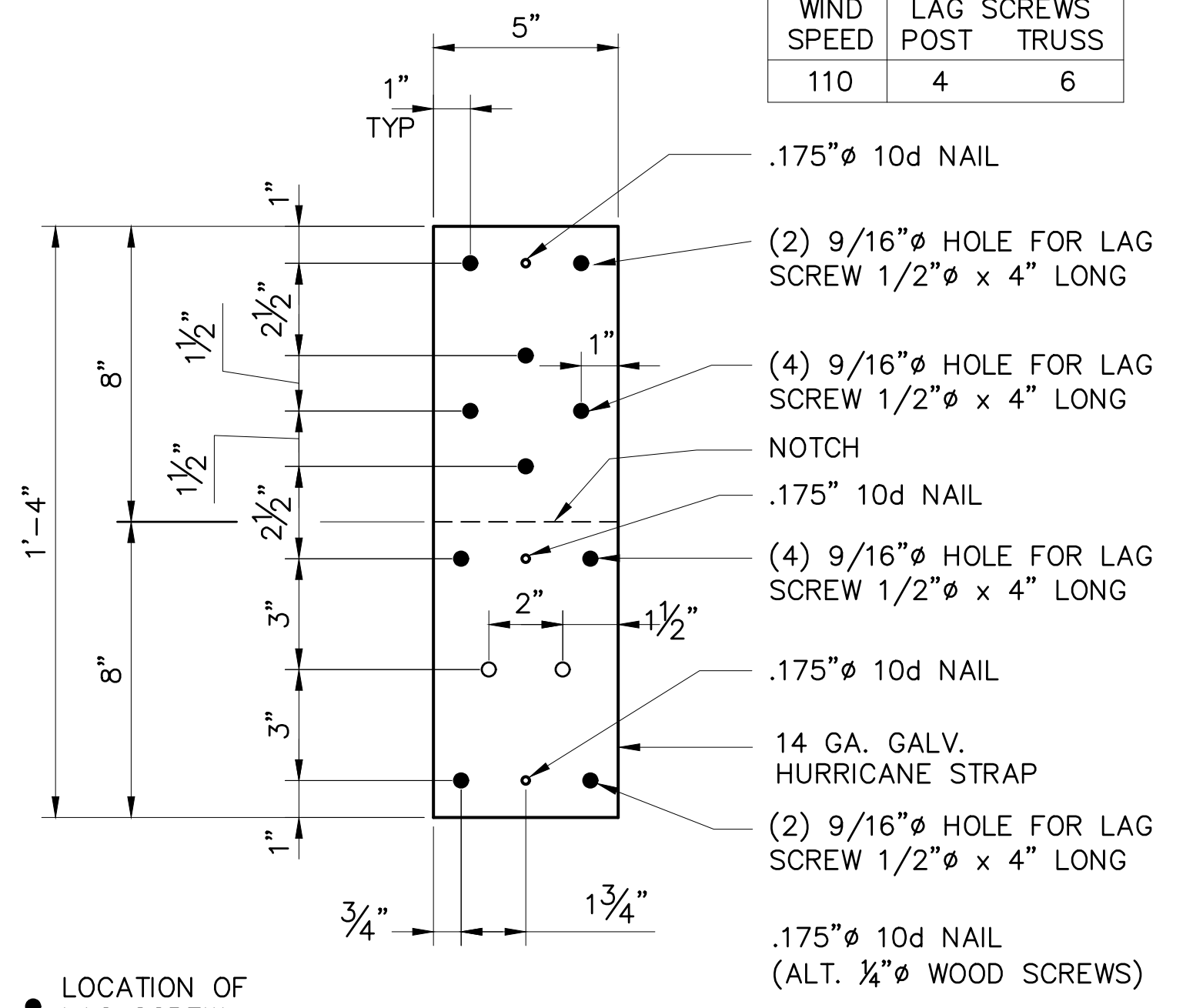
SHEET **5** OF

FILE: G-HendersonCounty

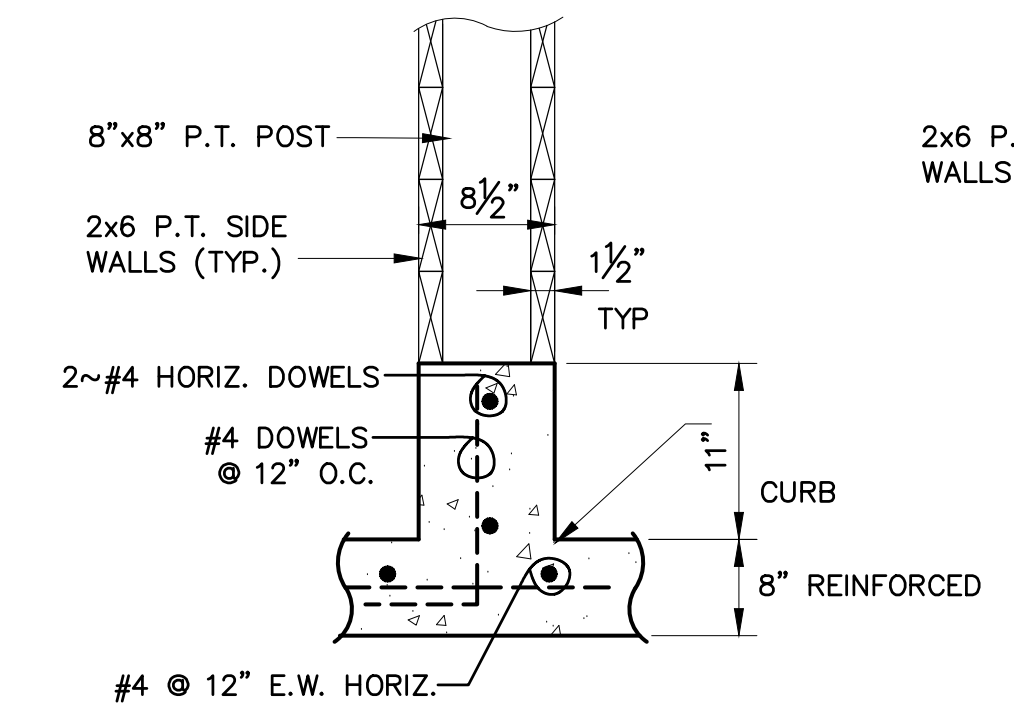
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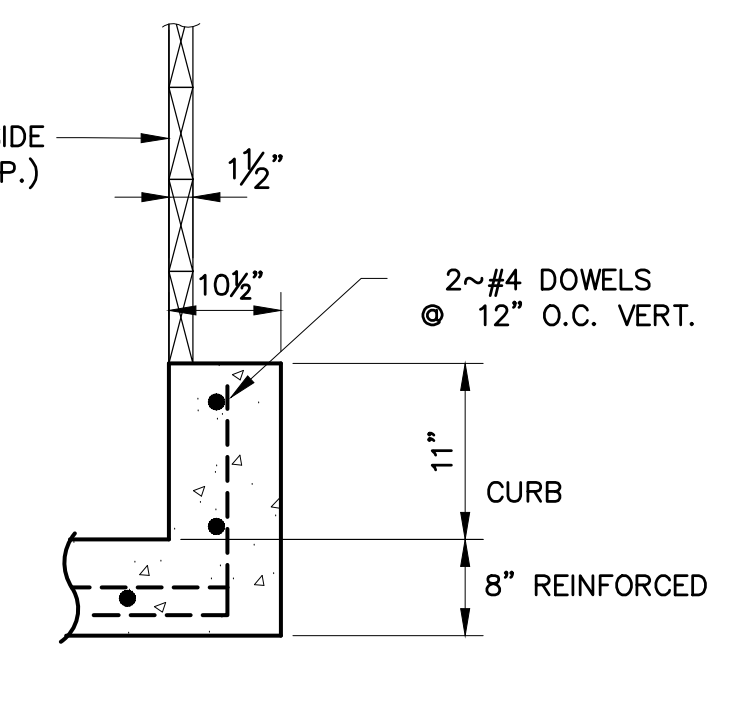
WIND SPEED	LAG SCREWS POST	TRUSS
110	4	6



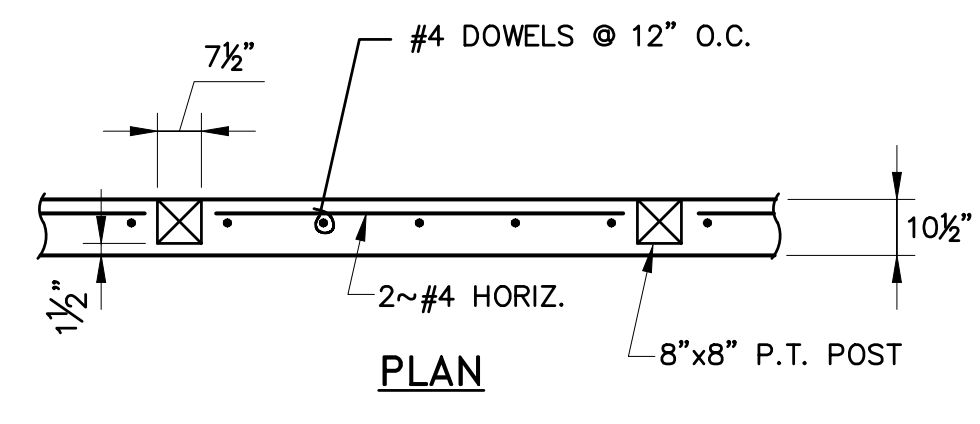
HURRICANE STRAP DETAIL
3" = 1'-0"



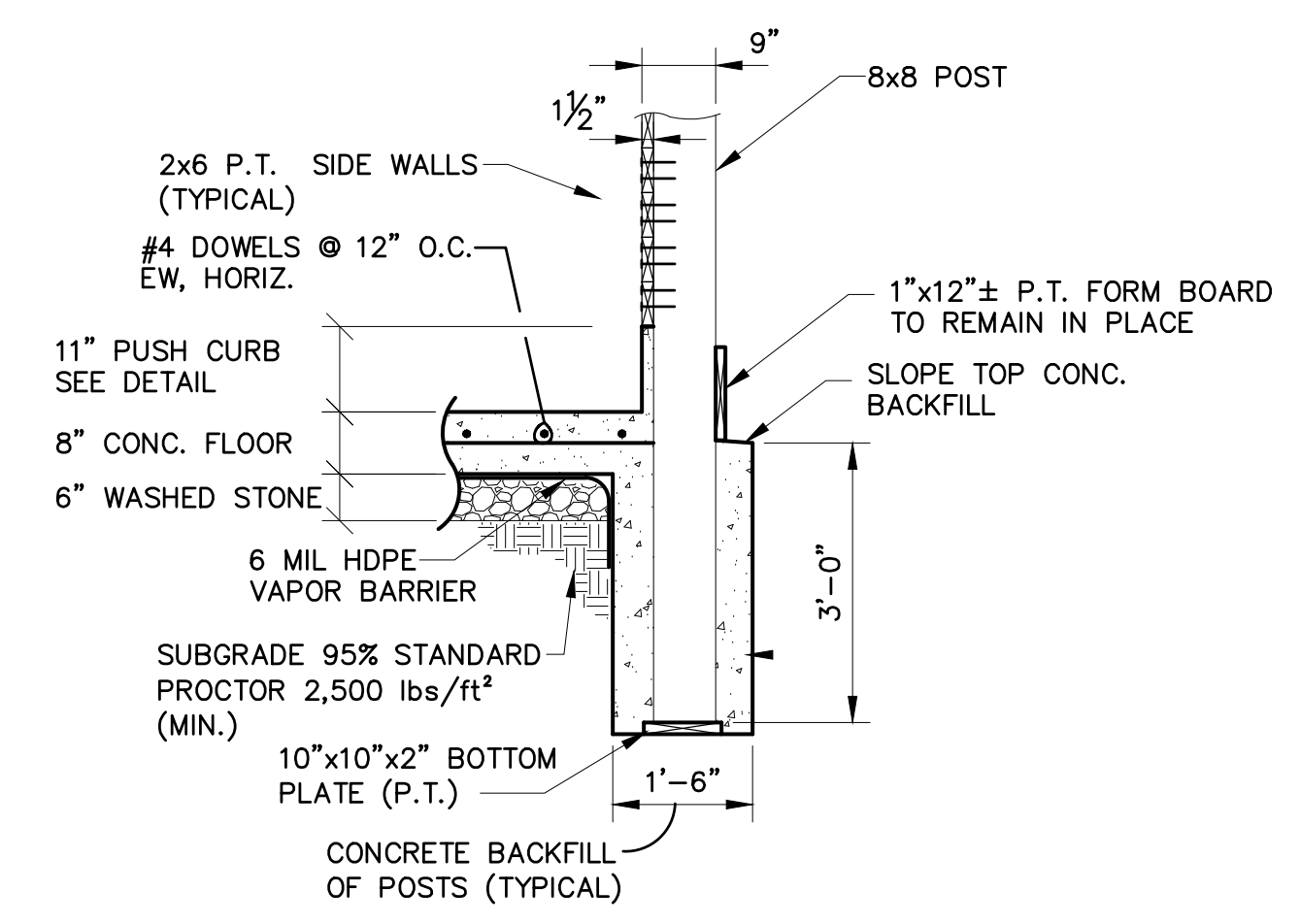
INSIDE CURB DETAIL
SCALE: NOT TO SCALE (1/4)



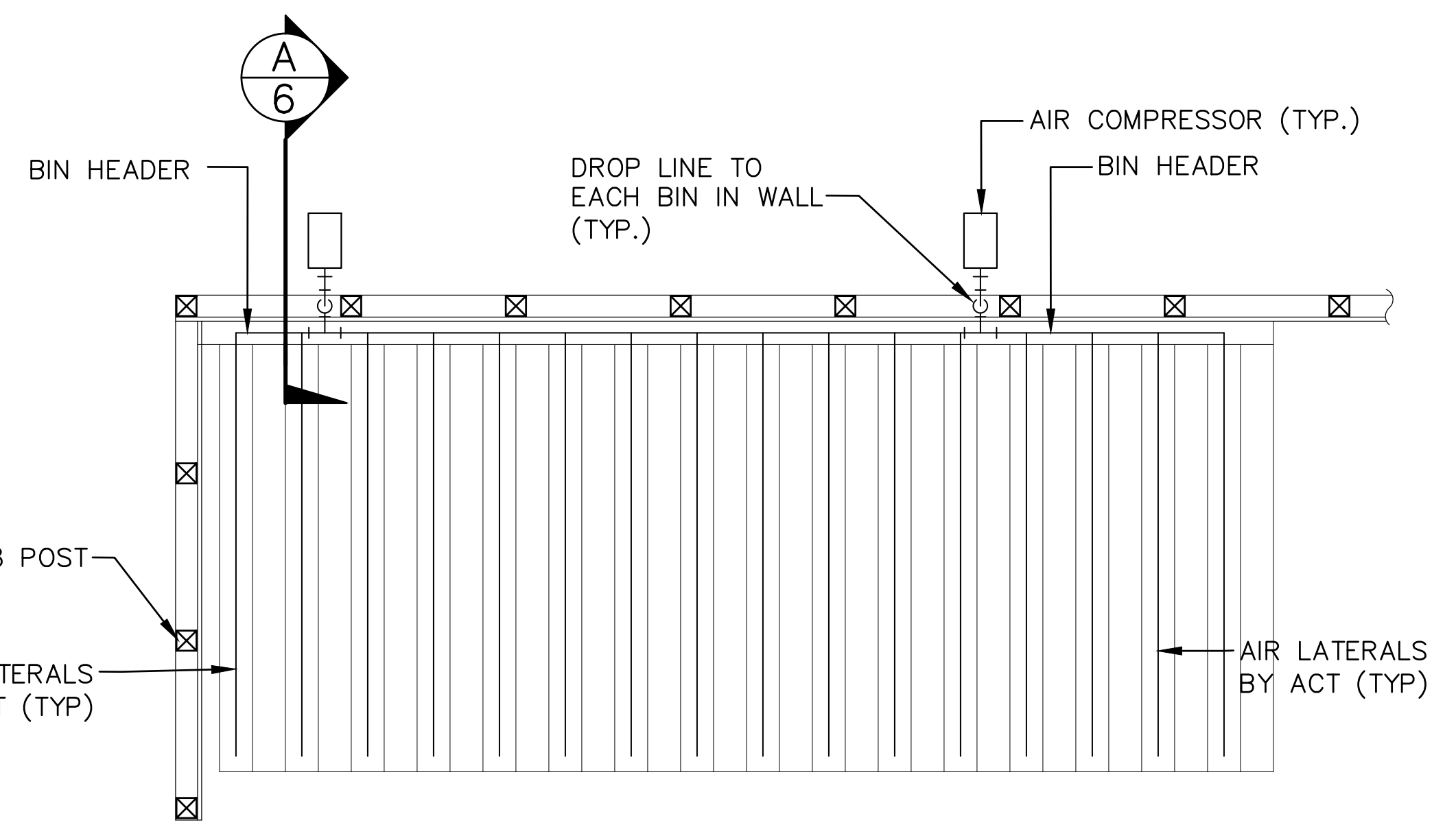
OUTSIDE CURB DETAIL
SCALE: NOT TO SCALE (2/4)



PUSH CURB FOR POSTS DETAIL
1/2" = 1'-0"



SECTION C
1/2" = 1'-0" (4)

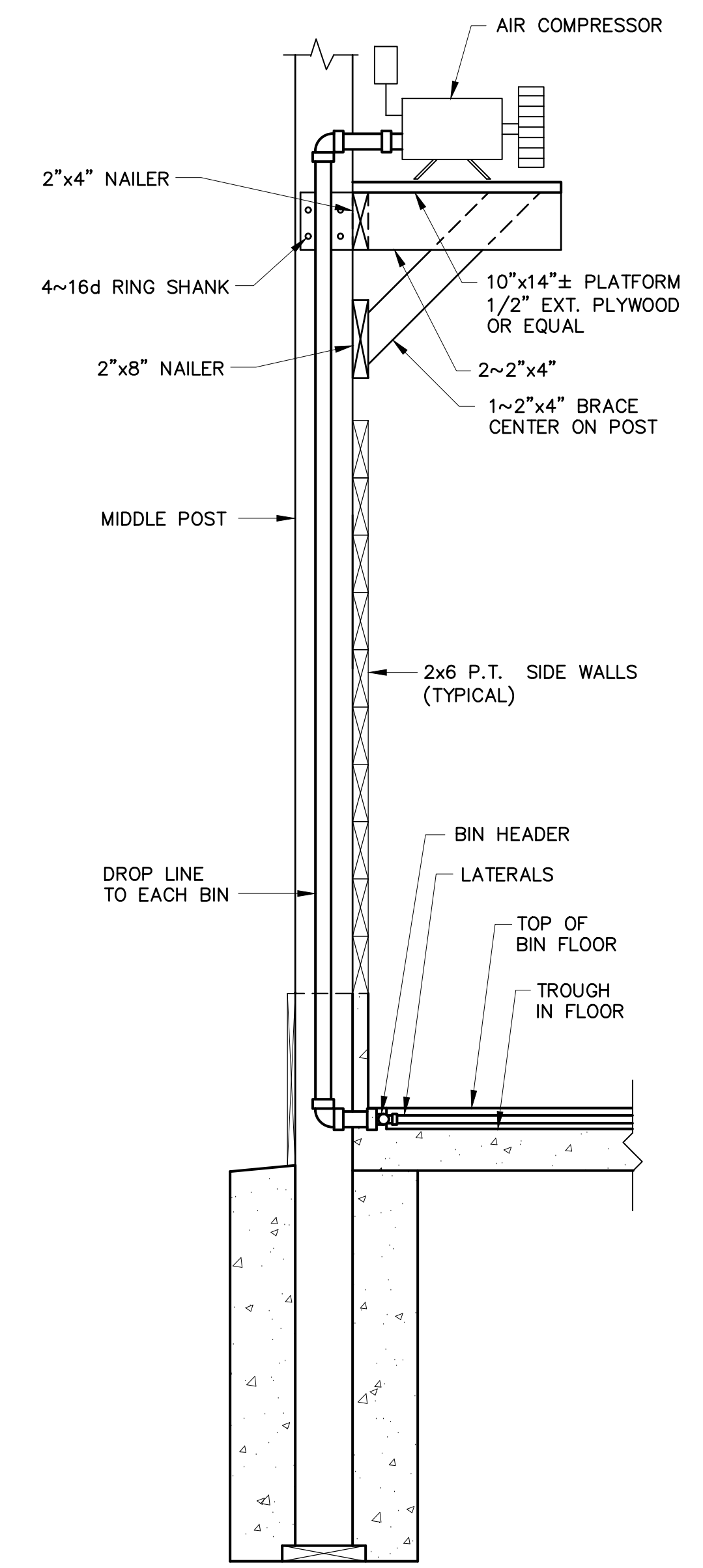


AIR SYSTEM SCHEMATIC
SCALE: NOT TO SCALE

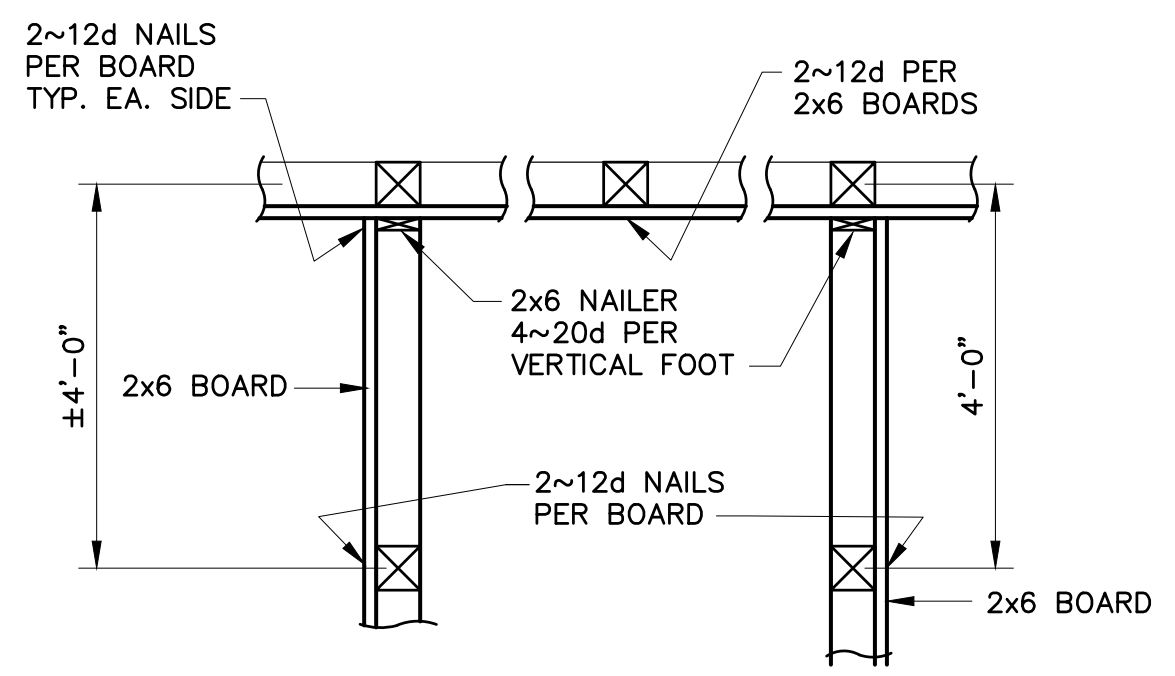
NOTES:

- 1 - ADVANCED COMPOSTING TECHNOLOGIES (ACT) IS RESPONSIBLE FOR FURNISHING ALL AERATION EQUIPMENT AND PIPING FOR INSTALLATION BY THE CONTRACTOR.
- 2 - ACT TO CUT AIR GROOVES IN AERATION AREA.

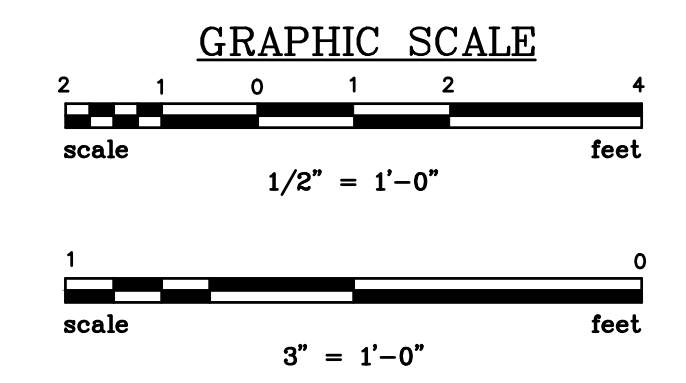
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SECTION A
SCALE: NOT TO SCALE (6)



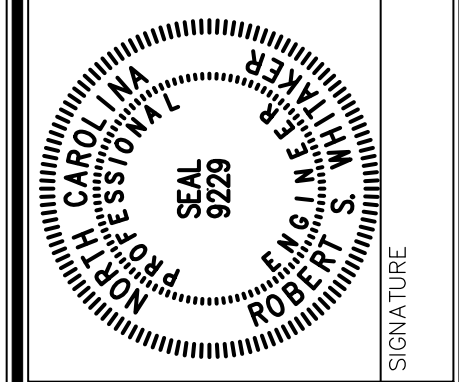
GRINDER/MIXER NAILING PLAN DETAIL
1/2" = 1'-0" (3/4)



NO.	DESCRIPTION	DATE	BY

PROJECT ENG.	DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED
RSW	RSW	CKD	RSW	RSW

DATE



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PHASE I
KNEE WALL DETAILS
AND AIR PIPING
DATE: MAR. 2020 SCALE: AS SHOWN

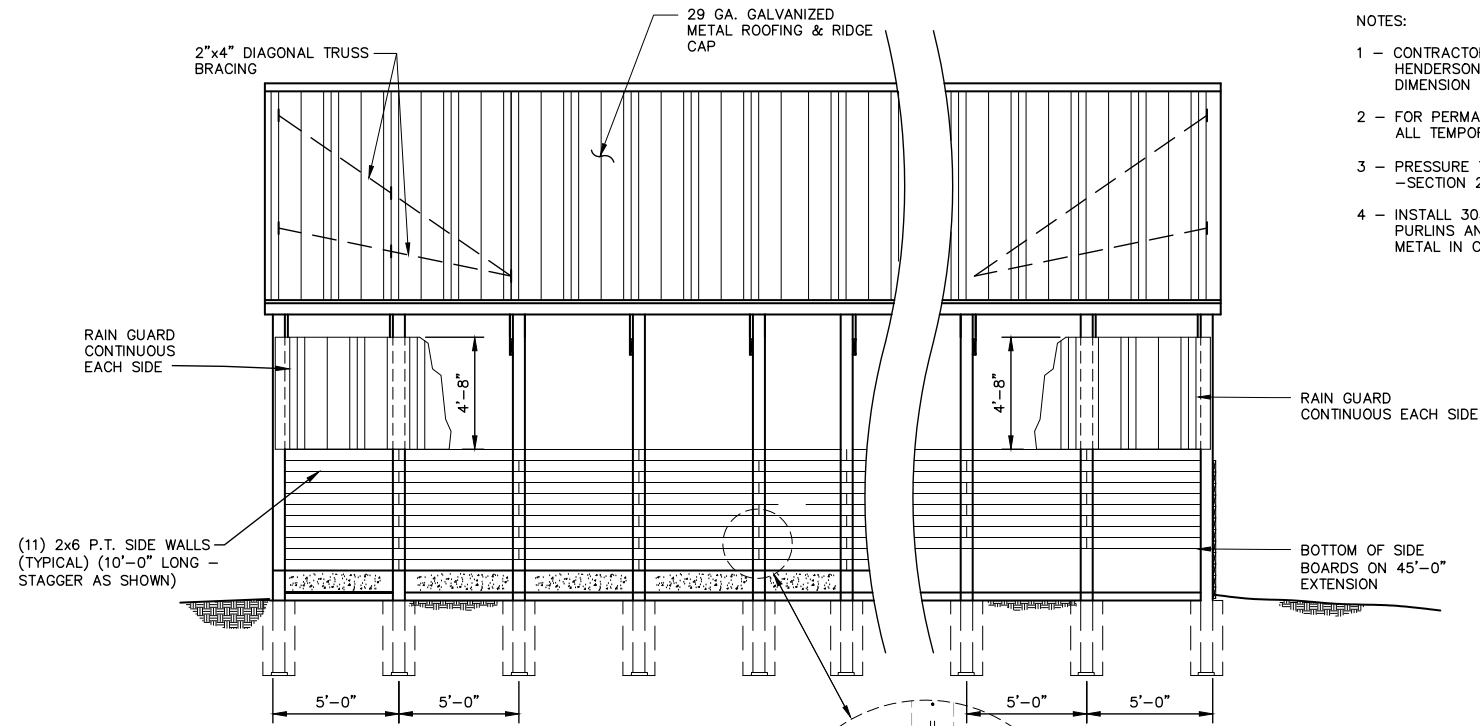
ADVANCED COMPOSTING TECHNOLOGIES
P.O. Box 2440
Candler, North Carolina 28715
GRINDER OPEN FLOOR
52' x 45' BUILDING
HENDERSON COUNTY

N.B. NO.	SHEET
REF.	6
PROJECT NO.	OF
05530	

FILE: G-HendersonCounty

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SIDE ELEVATION SECTION H
1/4" = 1'-0"

NOTES:

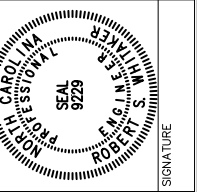
- 1 - CONTRACTOR SHALL INSTALL PRE-USED TRUSSES FURNISHED BY HENDERSON COUNTY. PROVIDE NEW GABLE END TRUSSES TO SAME DIMENSION AS USED TRUSSES.
- 2 - FOR PERMANENT TRUSS BRACING, CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY BRACING DURING CONSTRUCTION.
- 3 - PRESSURE TREATED WOOD (P.T.) SHALL BE CCA OR ALTERNATE -SECTION 2.A.2.b.
- 4 - INSTALL 30# ASPHALT IMPREGNATED FELT PAPER BETWEEN THE 2x4 PURLINS AND THE METAL SHEETING TO PREVENT CORROSION OF THE METAL IN CONTACT WITH THE TREATED WOOD.

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REVISIONS	
NO.	DESCRIPTION

APPROVALS	
PROJECT ENG.	DESIGNED BY:
RSW	RSW
DRAWN BY:	CHECKED BY:
CKD	RSW
APPROVED:	RSW

DATE



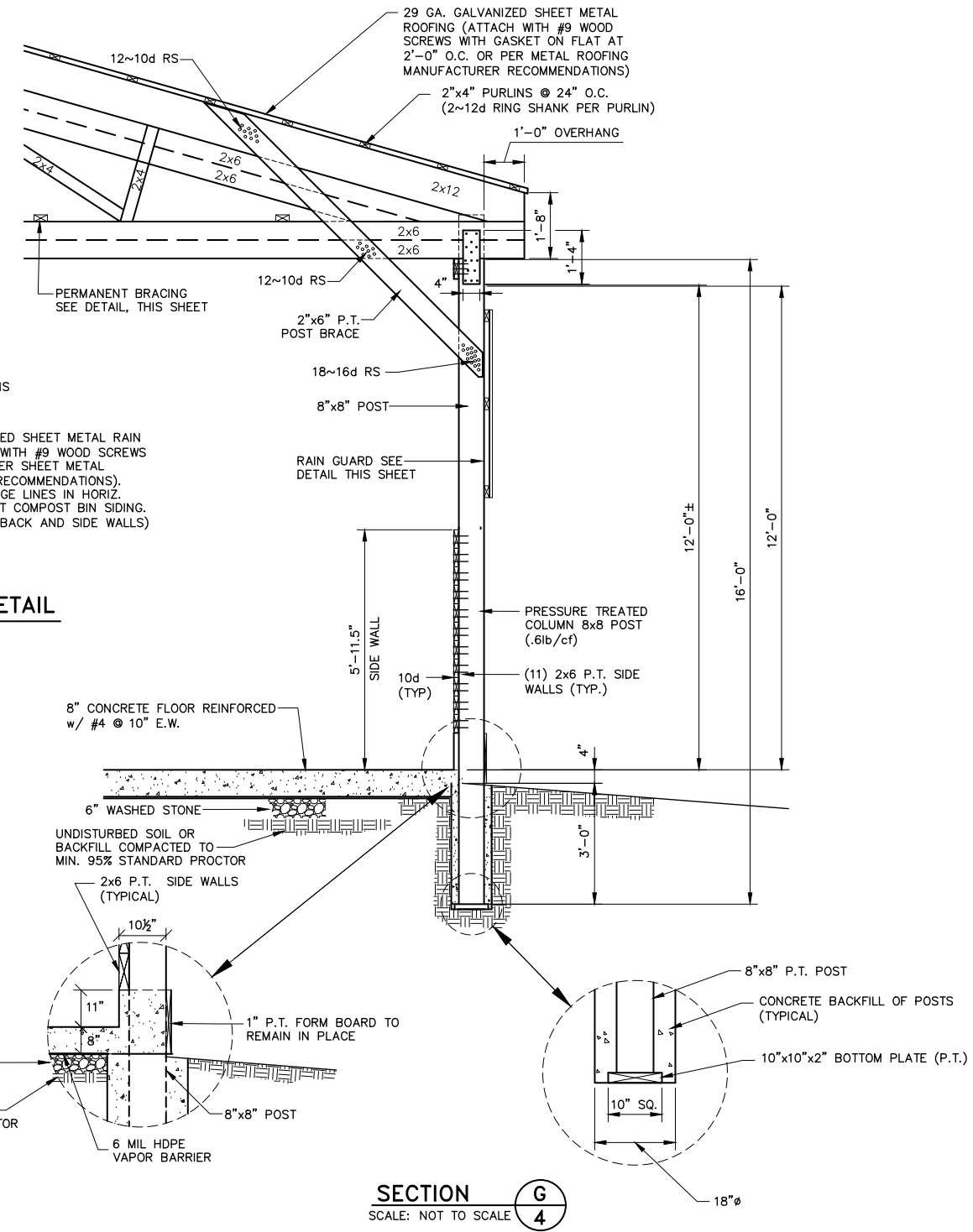
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PHASE I BUILDING SECTIONS AND DETAILS
SHEET TITLE
DATE: MAR. 2020 SCALE: AS SHOWN

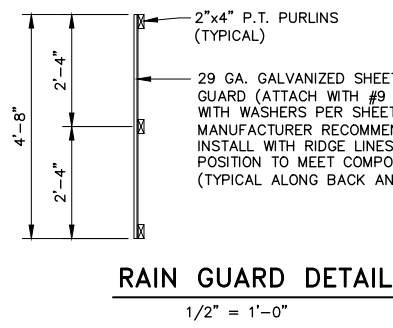
PROJECT
ADVANCED COMPOSTING TECHNOLOGIES
P.O. Box 2440
Candler, North Carolina 28715
GRINDER OPEN FLOOR 52'x45' BUILDING
HENDERSON COUNTY

N.B. NO.	SHEET
	8
REF.	
PROJECT NO.	05530
OF	

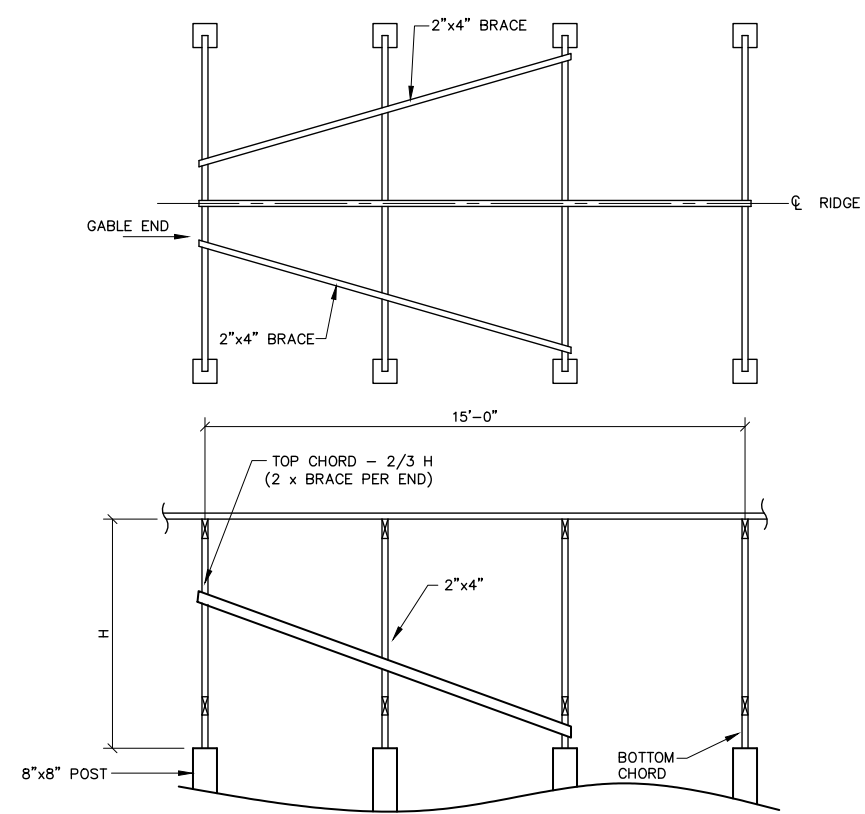
FILE: G--HendersonCounty



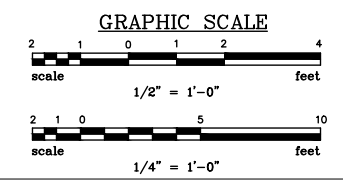
SECTION G
SCALE: NOT TO SCALE



RAIN GUARD DETAIL
1/2" = 1'-0"



BRACING PLAN TOP VIEW GABLE END BRACING DETAIL 1
SCALE: NOT TO SCALE



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CONSTRUCTION NOTES

SECTION 1 – GRADING

Clearing

- A. The site shall be cleared of all vegetation, grass, roots, and debris. The topsoil shall be removed to residual and clay/silt or sandy soil subgrade.

Grading

- A. The Contractor shall be responsible for all site grading, stabilization and proper compaction.
- B. The site shall be shaped to the size of the compost facility and graded to drain away from the facility.
- C. The site shall be graded to residual soil and any soft or unstable subgrade excavated, backfilled and compacted.
- D. Sites on fill shall be uniformly graded, backfilled, and compacted to 95% Standard Proctor using heavy grading equipment or roller compactor.
- E. The site shall be proof rolled by driving a loaded truck or other heavy rubber tired equipment over the site and inspected for movement or "pumping of the soil". If movement is observed, the soft areas are to be excavated, backfilled and recompactd.
- F. All finished subgrade shall have a minimum bearing strength of 2,500 lb/sf @ 95% standard proctor.

SECTION 2 – MATERIALS

- A. All lumber shall be of good quality southern yellow pine (SYP) No. 2, MSR #1, fb = 2,100 psi.
 - 1. Structural members shall be manufactured to meet the loads, spacing, and spans as noted on the drawings.
 - a. Wind loads shall meet the local codes of each county where the facility is located as noted on the drawings.
 - 2. Rafters may be a manufactured wood product with equal or greater strength than SYP No 2, MSR #1, fb = 2,100 psi.
 - a. Pressure treated lumber (PT) shall be preserved with copper chromated arsenic (CCA–Type I, II, or III) conforming to Federal Specification TT–W–571.
 - 1. The following wood components of the facility are to be pressure treated.
 - a. Rear Post columns on walls – 0.4 lb. retention
Rear Post columns in ground – 0.6 lb. retention
 - b. Front post columns on walls – 0.4 lb retention
Front post columns in ground – 0.6 lb retention
CCA – 0.60 lb/cf, ACQ – 0.60 lb/cf
 - c. Exposed boards and purlins as noted on the drawings – 0.4 lb. retention
 - d. Column bracing – 0.4 lb retention
 - b. Alternative copper pressure treated lumber (PT) shall be preserved in accordance with American Wood Preservative Association (APWA) Standard UC4B and commodity standard C15/C16.
 - 1. Under these standards the following preservatives are allowed.
 - a. Post Columns
 - 1) ACQ – 0.40 lb/cf
 - 2) CBA–A – 0.41 lb/cf
 - 3) ACZA – 0.40 lb/cf
 - b. Exposed boards and purlins
 - 1) ACQ – 0.40 lb/cf
 - 2) CBA–A – 0.40 lb/cf
 - 3) CZA – 0.40 lb/cf
 - 4) MICRONIZED CQC – 0.34 lb/cf (GROUND CONTACT)
 - 5) MICRONIZED CAC – 0.15 lb/cf (GROUND CONTACT)
 - c. Column Bracing
 - 1) ACQ – 0.40 lb/cf
 - 2) CBA–A – 0.40 lb/cf
 - 3) CZA – 0.40 lb/cf
 - 4) MICRONIZED CAC – 0.15 lb/cf
 - 2. The alternative copper preservatives are corrosive to metal. All metal surfaces in direct contact with the pressure treated lumber shall be in accordance with section 2, B with minimum 30 lb. felt.
 - 3. All pressure treated lumber shall be accredited by the American Lumber Standard Committee (ALSC) and shall conform to the standards of the AWP.
 - a. When alternative treated lumber is used, the end tag shall be saved and made available to the NRCS for their review as part of the cost reimbursement program.
 - 3. The following wood components of the facility do not need to be pressure treated.
 - a. Roof rafters
 - b. Roof purlins
- B. Aluminum fasteners shall not be used in direct contact with traeted wood. Galvanized or stainless steel bolts, washers, nuts, nails and other hardware which meet requirements of ASTM A153 for fasteners and A653 Class G185 sheet metal for connections, type 304 or 316 stainless steel, or other type of coating as approved by the preservative manufacturer. All fasteners, connectors and other metal contacting ACZA, ACQ, or CA treated wood shall be stainless steel.
 - 1. Nails used to fasten pressure treated lumber shall be ring shank with annular threads or spiral shank nails, sized as shown on the drawings.
 - 2. Nails used to fasten purlins to the roof rafters shall be ring or spiral shank.
 - 3. Fasteners used to fasten sheet metal roofing, end walls and rain guard to purlins shall be #9 wood screws with washers.
 - 4. Bolts in contact with treated lumber shall be hot dipped galvanized or stainless steel.

- C. Roof decking shall be 29 gauge (ASTM A653, Grade 80, hot dipped G–90 galvanized steel) with raised seams.
- D. Fasteners, nails, wood screws, lag screws and bolts shall not be place closer than 5 times the diameter of the fastener from the edge of the wood.
- E. All water stops between concrete walls and floors shall be minimum 6 inch PVC. overlap any water stop joints a minimum of 6 inches.

SECTION 3– CONCRETE

- A. Material – Concrete walls, floors and slabs on grade shall have a minimum compressive strength of 4,000 psi after 28 days.
 - 1. Cement shall be Portland cement, ASTM C 150 Type 1.
 - 2. Aggregate shall conform to:
 - a. Fine aggregate – ASTM C33
 - b. Coarse aggregate – ASTM C33 – Size #57
 - 3. Admixtures:
 - a. Air entrancing – ASTM C260
 - b. Calcium chloride is not allowed.
- B. Concrete Mix
 - 1. Maximum water cement ratio: 4.5/1
 - 2. Air entrainment: 4 – 6%
 - 3. Slump: 3–5 inches
- C. Floor reinforcement
 - 1. Bin floors and working slab reinforcement shall be reinforced w/ ASTM A615 grade 60 rebar.
- D. Footing and wall reinforcement shall be rebar, ASTM A615, grade 60.
- E. The finished concrete shall be prevented from drying for a curing period of at least 7 days after it is placed by either application of curing compound as recommended by the manufacturer or continuous moist curing or a combination of moist curing until curing compound is applied.

INSPECTION AND MAINTENANCE NOTES

- 1. Construction Inspection (Henderson County)
 - A. Verify that lumber grade, preservative, and fasteners meet specification requirements.
 - B. Verify the sheet metal gauge, fasteners with washers and ridge cap.
 - C. Verify the facility dimensions, subgrade compaction, post & rafter spacing and connections.
 - D. Verify all nailed connections have the number and type of nails called for in the drawings.
 - E. Verify soil compaction and bearing strength from soils engineer report. Minimum compaction of fill is 95% Standard Procter and minimum bearing strength of the subgrade is to be 2,500 lb/sf.
 - F. Verify concrete mix design. Concrete supplier to provide written mix design for 4,000 psi concrete at 28 days curing time.
 - G. Verify steel placement in floors, footings and walls after forming and prior to pouring concrete.
 - H. Verify fastener sizes and materials.
- 2. Maintenance (Henderson County)
 - A. Conduct regular, yearly, maintenance inspection and material repair or replacement for:
 - 1. Cracks and splits in wood posts and brace members.
 - 2. Any nail pull–outs at connections to rafters, bracing and roofing, side boards, etc.
 - 3. Cracks in concrete flooring outside the contraction joints. Repair by filling with concrete crack sealer.
 - 4. Excessively warped, rotted or sagging wood members.
 - 5. Roof leaks or loose sheet metal.
 - 6. Apply non–shrink Thoroseal over any vertical wall shrinkage cracks created by differential shrinkage between walls and floor slab.

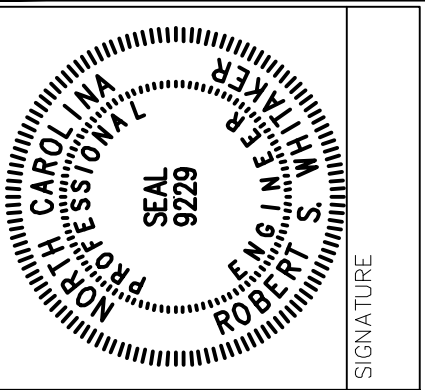
Table 5C: End-Use-ICC Evaluation Service									
Southern Pine Preservatives and Retentions									
Code Official Advisory per International Code Council Evaluation Service Report (ESR)									
Classification	Preservative System	ESR	Use Category (UC & Minimum Retention Requirements - Pounds per Cubic Foot (pcf))						
			Above Ground			Ground Contact / Fresh Water			
			Interior	Fence	Decking	General Use	General Use	Critical	Piling
Waterborne, Copper Based, Solution	Alkaline Copper Quat (ACQ-C&D)	628	0.15	0.15	0.15	0.25	0.40	0.60	
		643	0.15	0.15	0.15	0.15	0.40	0.60	
		1980	0.20	0.15	0.15	0.20	0.40	0.60	
	Alkaline Copper Betaine (KDS)	2500	0.14	0.14	0.14	0.19	0.36		
	Alkaline Copper Betaine (KDS-B)	2500	0.10	0.10	0.10	0.14	0.27		
	Alkaline Copper + DCOI (ACD)	2711	0.13	0.13	0.13	0.17	0.28	0.44	
Waterborne, Copper Based, Suspension	Ammoniacal Copper Quat (ACQ-A&B)	1980	0.20	0.15	0.15	0.20	0.40	0.60	
	Copper Azole (CA-C)	1721	0.06	0.06	0.06	0.06	0.15	0.25	0.35
	Copper HDO Type A (CX-A)	1863	0.20	0.20	0.11	0.20	0.30	0.45	
	Dispersed Copper Azole (uCA-C)	1721	0.05	0.05	0.05	0.05	0.14	0.23	0.33
	Micronized Copper Azole (MCA)	2325	0.07	0.06	0.06	0.07	0.16	0.24	
Waterborne, Carbon Based	Micronized Copper Azole	2240	0.06	0.06	0.06	0.06	0.15	0.23	
	Micronized Copper Quat (MCQ)	1980	0.15	0.10	0.15	0.15	0.34	0.60	
	Tebuconazole + Imidacloprid (EL)	2067	0.0187	0.0187	0.0187	0.0187			
	DCOI + Imidacloprid (EL2)	1851	0.0187	0.0187	0.0187	0.0187			
Waterborne, Borates	Propiconazole-Tebuconazole-Imidacloprid (PTI)	1477	0.013	0.018	0.018	0.018			
	DOT & Polymer Binder	1081	0.50	0.50	0.50	0.50			
	Inorganiz Boron (SBX)	648	0.17						

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NO.	DESCRIPTION	DATE	BY

APPROVALS	PROJECT ENGR: RSW	DESIGNED BY: RSW	DRAWN BY: CKD	CHECKED BY: RSW	APPROVED: RSW
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 (864) 949-1111

PHASE I SPECIFICATIONS

SHEET TITLE

DATE: MAR. 2020 SCALE: AS SHOWN

ADVANCED COMPOSTING TECHNOLOGIES
 P.O. Box 2440
 Candler, North Carolina 28715
GRINDER OPEN FLOOR
52'x45' BUILDING
HENDERSON COUNTY

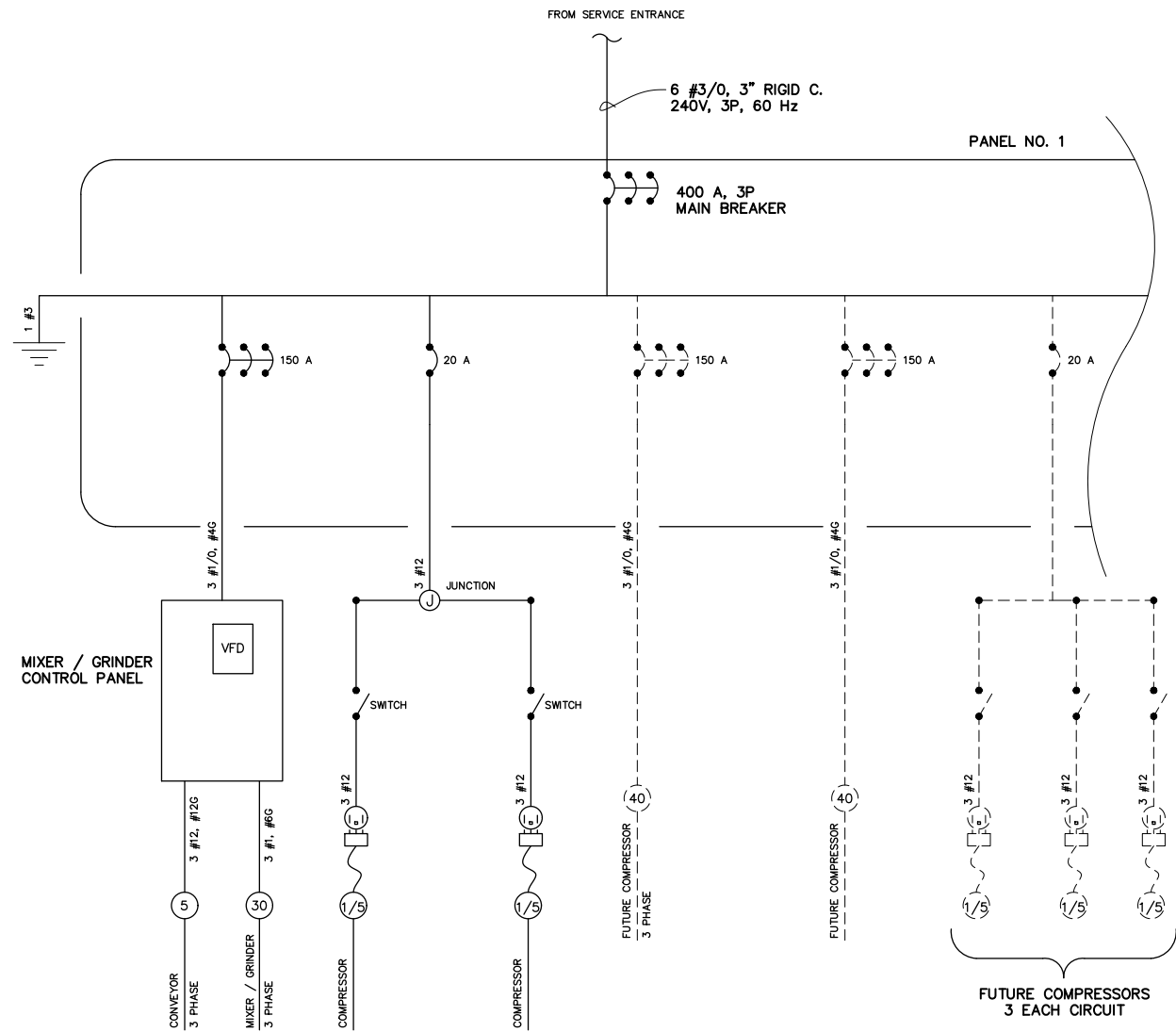
N.B. NO.	SHEET
REF.	9
PROJECT NO.	OF
05530	

FILE: G–HendersonCounty

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SINGLE LINE DIAGRAM
SCALE: NOT TO SCALE

NOTES:

- 1 - EXPOSED WIRING TO BE IN RIGID CONDUIT AS NOTED.
- 2 - ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST VERSION OF THE NATIONAL ELECTRICAL CODE.
- 3- COMPRESSOR SWITCHES SHALL BE INTERIOR TYPE MOUNTED TO THE INSIDE WALL.

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ELECTRICAL LEGEND	
SYMBOL	DESCRIPTION
	WALL SWITCH - MOUNT AT 48" AFF. 20 AMP. RATED. SINGLE & DOUBLE POLE DETERMINED BY VOLTAGE OF EQUIPMENT. "WP" INDICATES SWITCH SHALL BE WEATHERPROOF.
	RACEWAY RUN EXPOSED. RACEWAY RUN CONCEALED.
	DUPLEX RECEPTACLE - 115 VOLT, 15-AMP, 3 WIRE NEMA 1-15R. MOUNT 18" AFF TO CENTERLINE, UNLESS OTHERWISE NOTED.
	GROUND FAULT CIRCUIT INTERRUPTING RECEPTACLE - 120-VOLT, 15-AMP, NEMA 1-15R WITH GFI PROTECTION IN THE RECEPTACLE. MOUNT ABOVE COMPRESSOR, UNLESS OTHERWISE NOTED.
	ALL WEATHER RECEPTACLE - 230-VOLT RECEPTACLE IS TO BE FEMALE 250 VOLT, 2 POLE, 3 WIRE GROUNDED, NEMA 6-15R. MOUNT 24" BELOW TOP OF WALL, UNLESS OTHERWISE NOTED. "WP" INDICATES RECEPTACLE SHALL BE PROVIDED WITH OUTSIDE PLUG COVER.
	GALVANIZED SURFACE JUNCTION BOX OR PULL BOX.

A		37.4		kVA																3 phase 3 Wire	
B		37.4		kVA																115/240Volts	
C		35		kVA																500 Amp Bus	
Panel No 1 Henderson County Landfill Compost Facility																					
400 Amp, 240 V, 3 Phase, 60 HZ																					
COND SIZE	WIRE SIZE	LOAD DESCRIPTION	kVA A	kVA B	kVA C	C/B	NO	CKT	A	B	C	CKT	NO.	C/B	kVA A	kVA B	kVA C	LOAD DESCRIPTION	Wire SIZE	COND SIZE	
1-1/2"	1/0	Mixer Grinder Control Panel	35			3P 150	1		■				2	1P 20	2.4			Compressors 2 each	12	3/4	
		Mixer Grinder Control Panel		35			3			■			4	1P 20		2.4		Lights	12	1/2	
		Mixer Grinder Control Panel			35		5				■		6	Blank				Future Compactor 40 HP 3 phase			
		Future Compressor 3 each					7				■		8	Blank							
		Future Compressor 3 each					9				■		10	Blank							
		Future Compressor 3 each					11				■		12	Blank				Future Compactor 40 hp 3 phase			
							13				■		14	Blank							
							15				■		16	Blank							
							17						18	Blank				Future Compressor 3 each			
							19						20	Blank				Future Compressor 3 each			
			35	35	35										2.4	2.4	0				

■ INSTALLED LOAD

▨ FUTURE LOAD

BOND NEUTRAL TO PANEL GROUND.

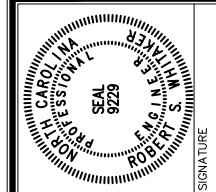
COMMON NEUTRAL FOR 115V SINGLE PHASE CIRCUIT

Load Table	
Description	Kw
Mixer/Grinder (1)	22.4
Conveyor (1)	3.7
Compressors (2)	0.4
Bay Lights (6)	0.6
Total	27.1

REVISIONS	
NO.	DESCRIPTION

APPROVALS	
PROJECT ENG:	DATE:
RSW	
DESIGNED BY:	DATE:
RSW	
DRAWN BY:	DATE:
CKD	
CHECKED BY:	DATE:
RSW	
APPROVED:	DATE:
RSW	

SIGNATURE	
DATE	



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ENGINEERING GROUP INC.
OF NORTH CAROLINA INC.
ENGINEERS • PLANNERS • SURVEYORS
9601 Warren H. Abernathy Hwy.
Spartanburg, SC 29301
(864) 949-1111

PHASE I
ELECTRICAL DIAGRAM
DATE: MAR. 2020 SCALE: AS SHOWN

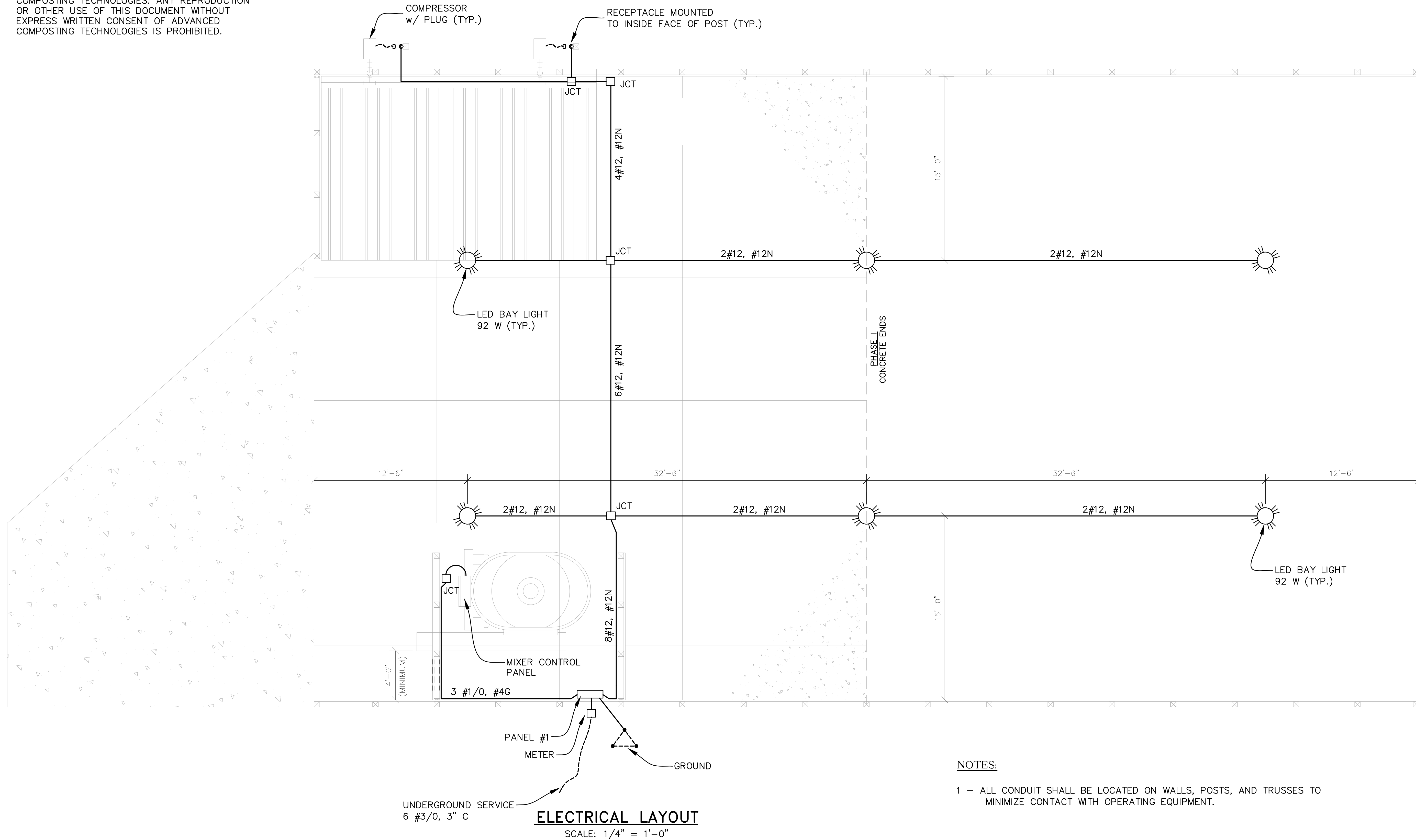
PROJECT
ADVANCED COMPOSTING TECHNOLOGIES
P.O. Box 2440
Candler, North Carolina 28715
GRINDER OPEN FLOOR
52'x45' BUILDING
HENDERSON COUNTY

N.B. NO.	SHEET
REF.	E1
PROJECT NO.	OF
05530	

FILE: G-HendersonCounty

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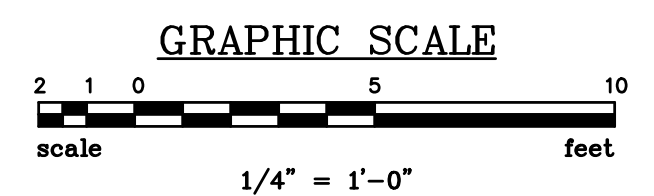
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ELECTRICAL LAYOUT
SCALE: 1/4" = 1'-0"

NOTES:

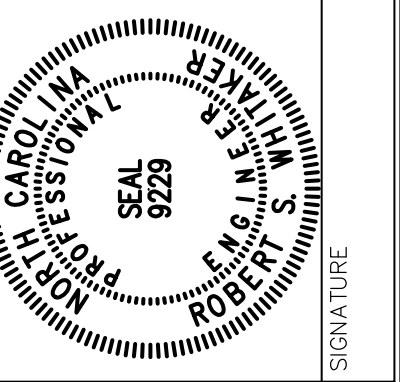
- 1 - ALL CONDUIT SHALL BE LOCATED ON WALLS, POSTS, AND TRUSSES TO MINIMIZE CONTACT WITH OPERATING EQUIPMENT.



N:\PROJECTS\05530\DWG\G--HENDERSONCOUNTY(PHASE1).DWG 5/27/2020PRJ-30372P&2

REVISIONS	
NO.	DESCRIPTION

APPROVALS	
PROJECT ENG:	RSW
DESIGNED BY:	RSW
DRAWN BY:	CKD
CHECKED BY:	RSW
APPROVED:	RSW



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SHEET TITLE	PHASE I
	ELECTRICAL LAYOUT
DATE: MAR. 2020	SCALE: AS SHOWN

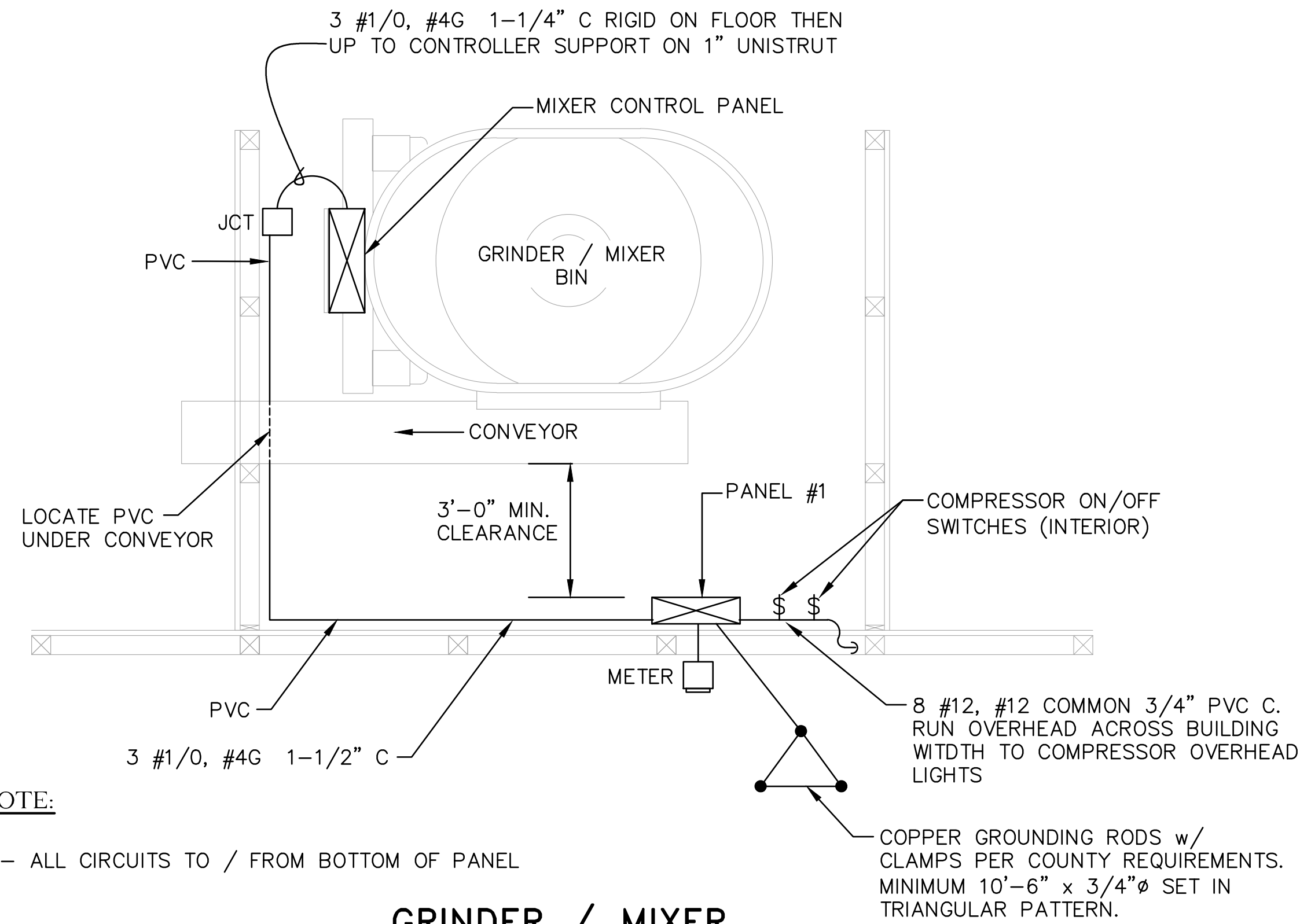
PROJECT
ADVANCED COMPOSTING TECHNOLOGIES
P.O. Box 2440
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GRINDER OPEN FLOOR
52'x45' BUILDING
HENDERSON COUNTY

N.B. NO.	
REF.	
PROJECT NO.	05530
SHEET	E2
OF	

FILE: G--HendersonCounty

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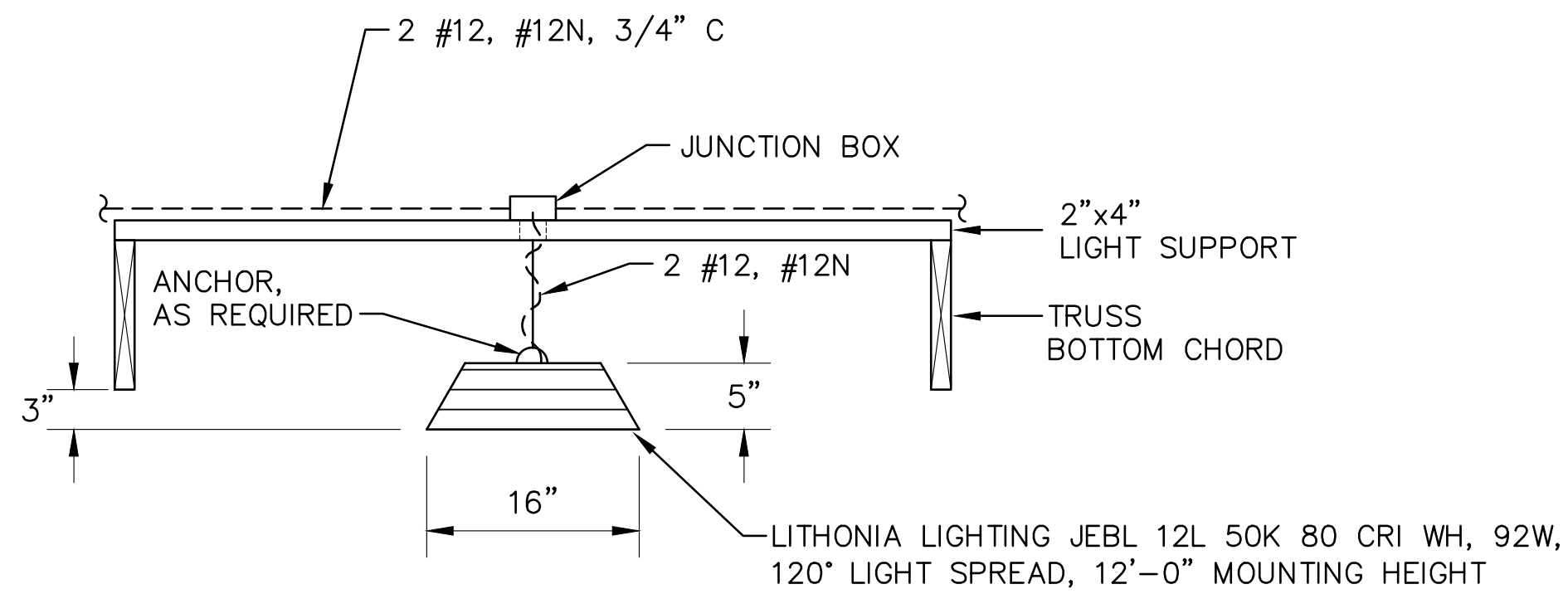


NOTE:

1 - ALL CIRCUITS TO / FROM BOTTOM OF PANEL

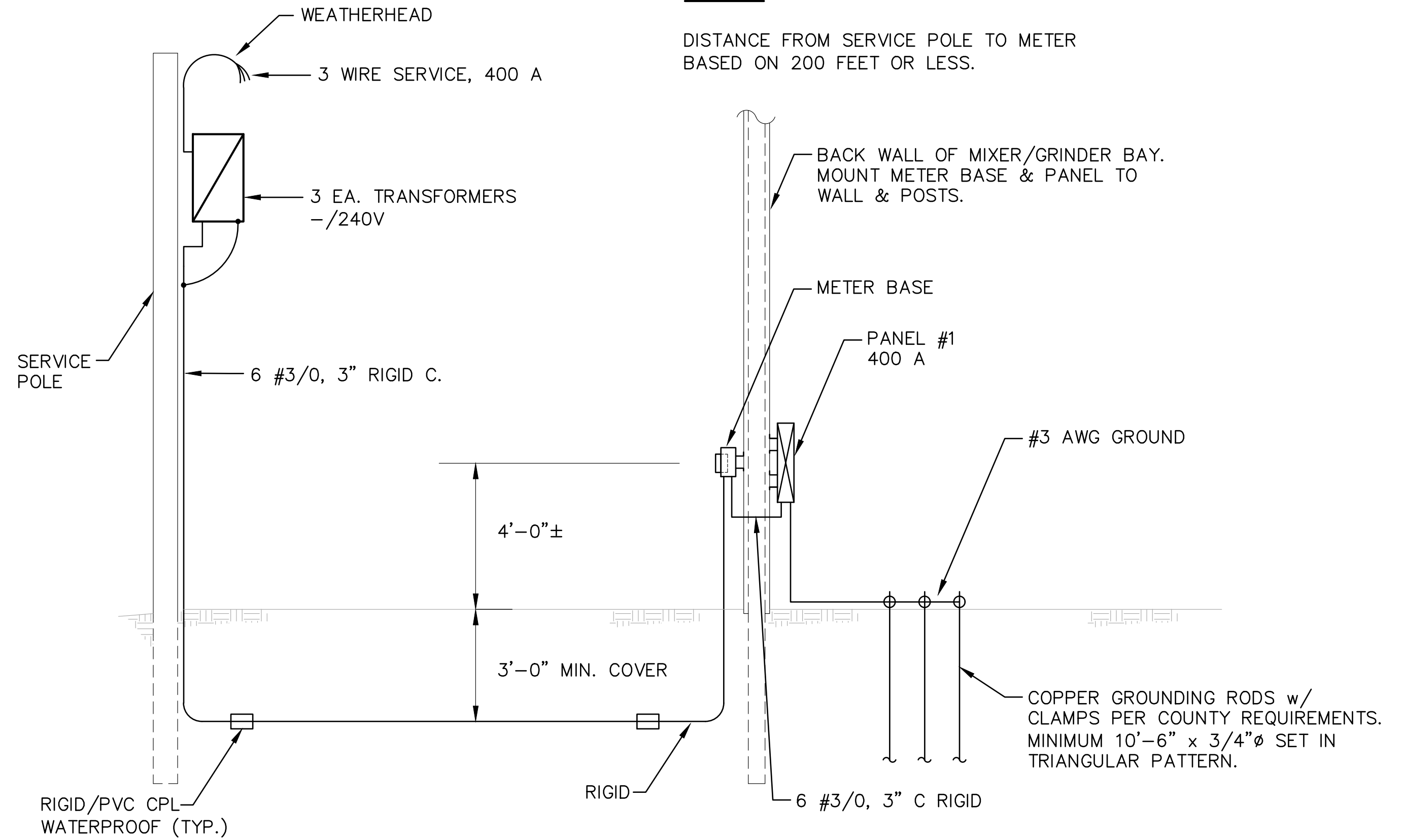
GRINDER / MIXER ELECTRICAL LAYOUT

SCALE: 3/8" = 1'-0"



OVERHEAD BAY LIGHT INSTALLATION DETAIL

SCALE: 1" = 1'-0"



NOTES:

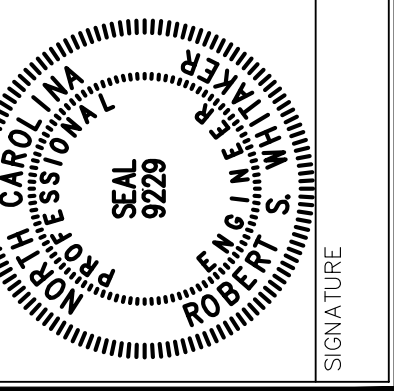
DISTANCE FROM SERVICE POLE TO METER BASED ON 200 FEET OR LESS.

ELECTRICAL SERVICE DIAGRAM

SCALE: 3/8" = 1'-0"

NO.	DESCRIPTION	DATE	BY

APPROVALS	PROJECT ENG.	DESIGNED BY:	DRAWN BY:	CHECKED BY:	APPROVED:
		RSW	RSW	CKD	RSW

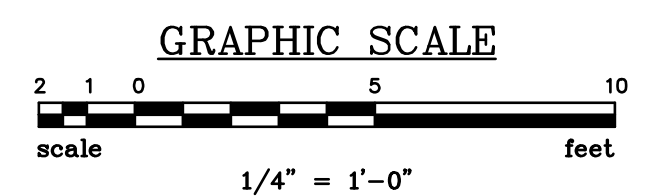


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SHEET TITLE: **PHASE I ELECTRICAL LAYOUT**
DATE: MAR. 2020 SCALE: AS SHOWN

PROJECT: **ADVANCED COMPOSTING TECHNOLOGIES**
P.O. Box 2440
Candler, North Carolina 28715
GRINDER OPEN FLOOR
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HENDERSON COUNTY

N.B. NO. **5**
REF. **OF**
PROJECT NO. **05530**



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