Wilson, Donna

From: Steve Cockman <scockman@mcgillcompost.com>
Sent: Friday, August 24, 2012 10:36 AM
To: Wilson, Donna
Cc: Noel Lyons; Patrone, John; Gallagher, Tony
Subject: RE: Building changes/Permit modification, McGill Environmental Systems Compost Facility
Attachments: Modification 2012 response SC.docx; Addendum A.docx; Mc Gill Env (Noel Lyons) 3-7.pdf; McGILL ENVIRONMENTAL ITEM 1 (1) 7-27.pdf; McGILL ENVIRONMENTAL ITEM 2 (1) 7-27.pdf

Donna,

You will find attached a response to your questions listed below along with drawings of the bay covers (bay doors) and the curtains used to isolate the blending building.
Please feel free to contact me with any questions.

Thanks,

Steve

Steve Cockman
Operations Manager
(M) 919-542-8903
(F) 919-362-1141
(O) 919-362-1161 ext. 7003
www.mcgillcompost.com

From: Wilson, Donna [mailto:donna.wilson@ncdenr.gov]
Sent: Wednesday, July 11, 2012 4:55 PM
To: Steve Cockman
Cc: Noel Lyons; Patrone, John
Subject: Building changes/Permit modification, McGill Environmental Systems Compost Facility

Steve – The Solid Waste Section has reviewed the permit modification application for the McGill Environmental Systems Compost Facility at Merry Oaks. The modification application pertained to the building changes at the facility. Please address the following questions/comments:

1. In order to concur with the plan to leave a portion of the building with an open roof, please provide more information on the bay covers and method of partitioning for the blending building and the curing bays. Are the covers in use now? Describe the covers on each bay. How is the blending building and the curing bays isolated for the biofilter? Describe the cover or partition to separate the blending building and the curing bays. Describe the material of the covers and the design/operation of the covers, and provide a sketch or drawing of its design and use. Describe the air collection to the biofilter with the covers/partitions. When are the bays covered and when are they not covered? Explain how this partitioning change is equivalent to or better than the original planned and approved design, including odor control and surface water control.
2. Secondary containment of the above ground storage tank is not required; however, the facility should have a plan and some means of controlling or mitigating a spill, leak, or release from the above ground storage tank and related piping, especially to prevent flow offsite or into surface waters. Please address.
3. Phase 3 is not considered part of this application because it is not proposed at this time. When this phase is proposed for installation, an application with construction/operation details should be submitted to this office in advance.

The additional information can either be submitted as an addendum to the previous submittal, or the additional information can be incorporated into the text of the previous submittal and resubmitted.

If you have any questions please let me know.
Thanks, Donna

Donna J. Wilson
Environmental Engineer
Solid Waste Section/Division of Waste Management/NC DENR
1646 Mail Service Center
Raleigh NC 27699-1646
**New Phone 919-707-8255
Email - donna.wilson@ncdenr.gov
Section webpage - http://portal.ncdenr.org/web/wm/sw

DWM offices have moved to the Green Square complex, 217 W. Jones St, Raleigh.
Mailing and delivery address is 1646 Mail Service Center, Raleigh NC 27699.

E-mail correspondence to and from this address may be subject to the
North Carolina Public Records Law and may be disclosed to third parties.

McGILL
The compost people®

August 22, 2012

Donna J. Wilson
Environmental Engineer
Solid Waste Section/Division of Waste Management/NCDENR
1646 Mail Service Center
Raleigh, NC 27699-1646

RECEIVED
AUG 28 2012
SOLID WASTE SECTION

Application for modification to McGill Environmental Systems Permit SWC-19-06
Dated February 27, 2012

Dear Donna:

Enclosed is a response to your email dated July 11, 2012 concerning our permit modification request dated February 27, 2012.

I have responded to your questions in the email in the following pages, a hard copy of this email has also been mailed to your address.

Please contact me at (919-542-8903 scockman@mcgillcompost.com) if you have any questions or comments.

Sincerely,

Steve Cockman
Operations Manager
(M) 919-542-8903
scockman@mcgillcompost.com

McGILL
The compost people®

RECEIVED
AUG 28 2012
SOLID WASTE SECTION

Addendum A

1. In order to concur with the plan to leave a portion of the building with an open roof, please provide more information on the bay covers and method of partitioning for the blending building and the curing bays.

   The bay covers are of two types. The 1st 3 bays are a series of reinforced concrete beams with resolite sheeting as the outer layer. The remaining 7 bays have a reinforced concrete roof. There is a 6 foot section at the back which is constructed of resolite.
   All corners are sealed with high density spray foam making all roofs truly airtight. All primary processing is carried out within these bays.

2. Are the covers in use now?

   Yes

3. Describe the covers on each bay.

   Each primary processing bay consists of 3 permanent walls and a permanent roof constructed of concrete and resolite sheeting. The front of each bay facing the aisle is covered with a reinforced polyethylene laminate curtain that fits to the bay front.

4. How is the blending building and the curing bays isolated for the biofilter?

   The blending building is contained by a sealed roof and wall sheeting consisting of resolite and sealed with foam insulation. One personnel door located on the east side of the building is sealed with weatherstripping and remains closed when not in use. The opening leading from the blending building to the aisle is fitted with a reinforced polyethylene laminate curtain that can be raised and lowered to allow wheel loaders to pass through moving material to the processing bays. The door opening on the west side of the blending building is also fitted with a reinforced polyethylene laminate curtain that can be raised and lowered to allow trucks to enter the blending building and offload amendments (sawdust, sheetrock). The curing bays remain as the original building design with a building covering the bays and the ductwork at the back of the curing bays pulling air to the biofilter.

5. Describe the cover or partition to separate the blending building and the curing bays.

The blending building is located at the opposite end of the building from the curing bays and are therefore separated by the primary processing bays. They are three hundred feet apart.

6. Describe the material of the covers and the design/operation of the covers, and provide a sketch or drawing of its design and use.

The covers or bay doors are constructed of reinforced polyethylene laminate material that is special ordered and cut to fit each opening. The covers (bay doors) are designed to be raised and lowered as needed to accommodate filling the bays and removing the material from the bay. To date this is done manually. An operator using a lift raises the door and secures it overhead. The opposite action is performed when the door requires closing.

7. Describe the air collection to the biofilter with the covers/partitions.

Ductwork is located at the rear wall of each processing bay from the biofilter. With the bay cover (bay door) in the closed position the air within the bay is collected by the ductwork and travels to the biofilter.

8. When are the bays covered and when are they not covered?

The bays are always covered. The roof over all bays is a permanent structure. Only the door at the front of the bay is movable (bay doors).

9. Explain how this partitioning change is equivalent to or better than the original planned and approved design, including odor control and surface water control.

Blending building: In the case of the blending building the design is fundamentally the same as the original, however the various upgrades to the materials insure that this area is more airtight.
Specifically these include, raising the perimeter concrete wall by a minimum of 4 feet, offloading door jams made from concrete, new offloading doors, spray foam on all wall joints.
The intake point for the extraction pipe has been moved to directly over the offloading area. This will insure more rapid removal of odorous air from incoming materials to the biofilter.
Additionally the isolation of the blending area from the primary processing air makes for a brighter and dryer working environment in the blending area. The blending building changes should have no impact on surface water control.

Processing bays (building): In the old design odorous, high moisture air from the primary processing was allowed to disperse throughout the whole building. This had a significant impact on the working environment especially during adverse weather conditions. Specifically, during cooler weather hot air rising from the primary bays

resulted in significant condensation when it came in contact with the underside of the roof. This made the surface of each bay wetter than ideal. This has a real impact on everything from bay surface porosity, screening to reuse as an amendment. Dryer material screens more uniformly and is easier to maintain aerobic conditions during curing. The area consisting of the even numbered processing bays in the old building is taken out of use as a processing building. This area, now without a roof, is only used for the storage of overs, amendment and compost. In the old layout these materials could and would be stored outside. All the rainwater falling in this area, not absorbed by the materials stored here, is contained within the building and incorporated into the composting process. Given the dramatic improvement is drying within the new processing bays this extra moisture is of significant benefit to the process. All in all the upgrades to the processing should reduce the volume of surface water flow due to the reduced roof size.

Curing: It is now anticipated that all curing will be done under roof. Unlike windrow curing this will allow aerobic conditions to be maintained at all times. This eliminates the potential of odor from turning windrows especially after periods when inclement weather disrupts the turning schedule. Moving the curing under roof makes the facility truly weather independent from offloading to final product. The outside, active footprint is greatly reduced which can only improve surface water management. Though no plan has been finalized yet consideration is been given to permanently reducing the former windrow curing area and putting it back in permanent vegetation.

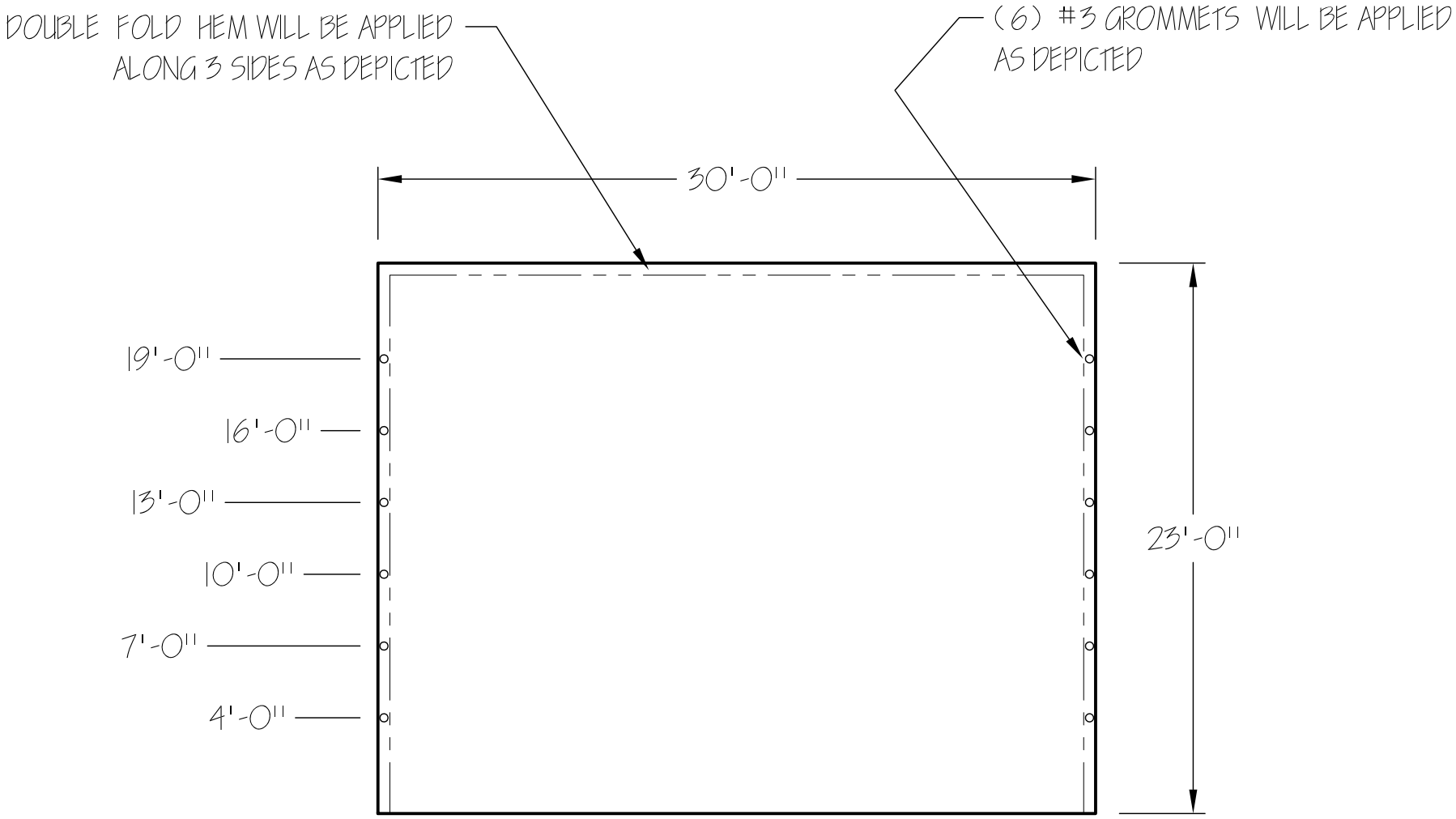
10. Secondary containment of the above ground storage tank is not required; however, the facility should have a plan and some means of controlling or mitigating a spill, leak, or release from the above ground storage tank and related piping, especially to prevent flow offsite or into surface waters. Please address.

    In the unlikely event of a spill from the above ground storage tank and related piping a supply of sawdust and wood chips are located next to the tank; this material is readily accessible with wheel loaders onsite and can be used to mop up a spill. Material would then be moved to the blending building to be processed. In addition a supply of bagged sand and hydrated lime is kept on hand to mop up smaller spills.

11. Phase 3 is not considered part of this application because it is not proposed at this time. When this phase is proposed for installation, an application with construction/operation details should be submitted to this office in advance.

    McGill does not have a proposed date for Phase 3 at this time, when such a date is determined McGill will submit a request for Phase 3.

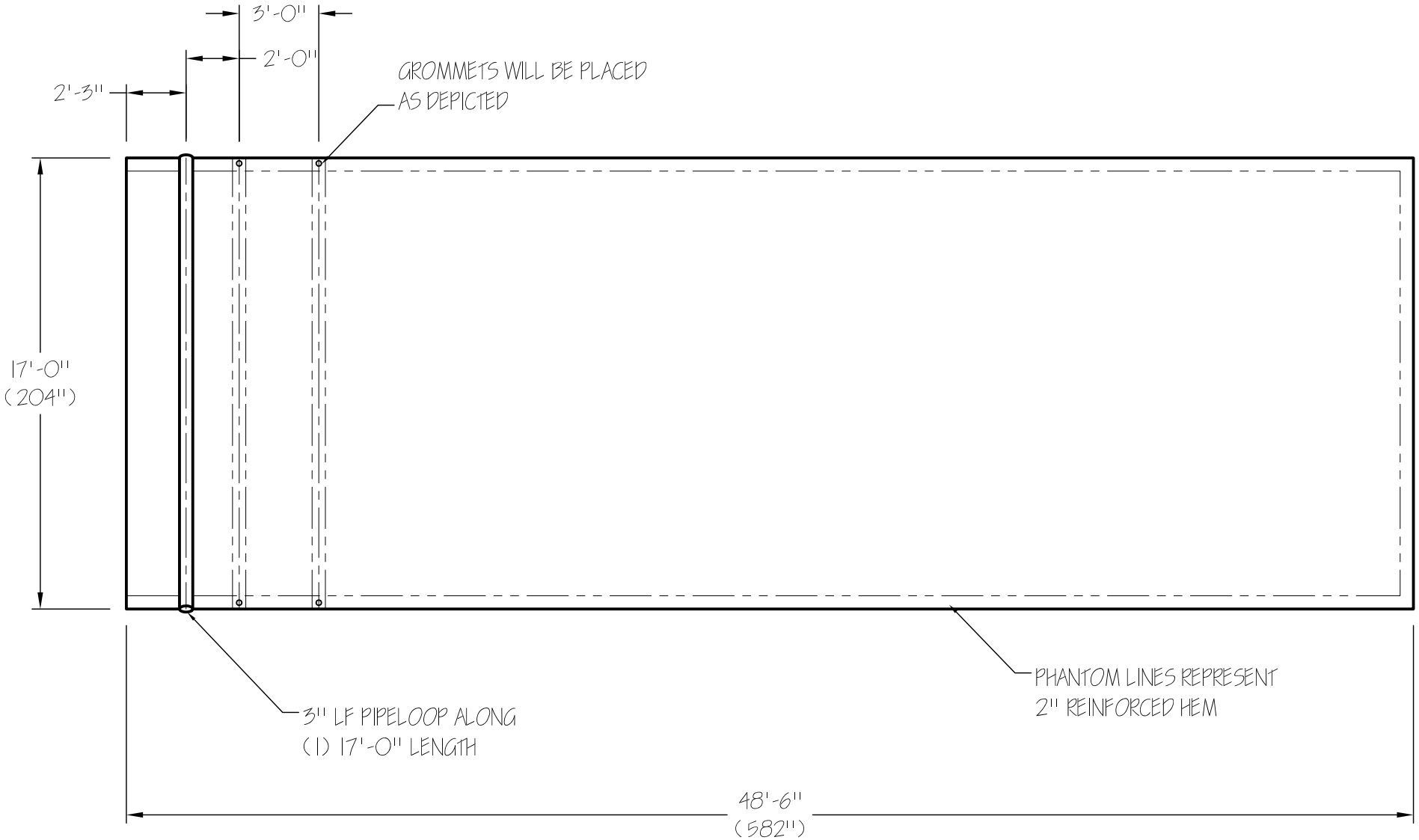
REEF INDUSTRIES, INC.	MATERIAL: TX-1600	SALESMAN NAME & CODE: MY 0103	DRAWING 1 of 1	SO# Mc Gill Env.(Noel Lyons)
	COLOR: CLEAR	DWG. BY: RC	ITEM 1	DATE: 3-7-12



CUSTOMER APPROVAL IS NECESSARY BEFORE PRODUCT CAN BE FABRICATED X _____

2001 REEF INDUSTRIES INC. All rights reserved. No part of this document may be reproduced or copied in any form or by any means without written permission from Reef Industries Inc.

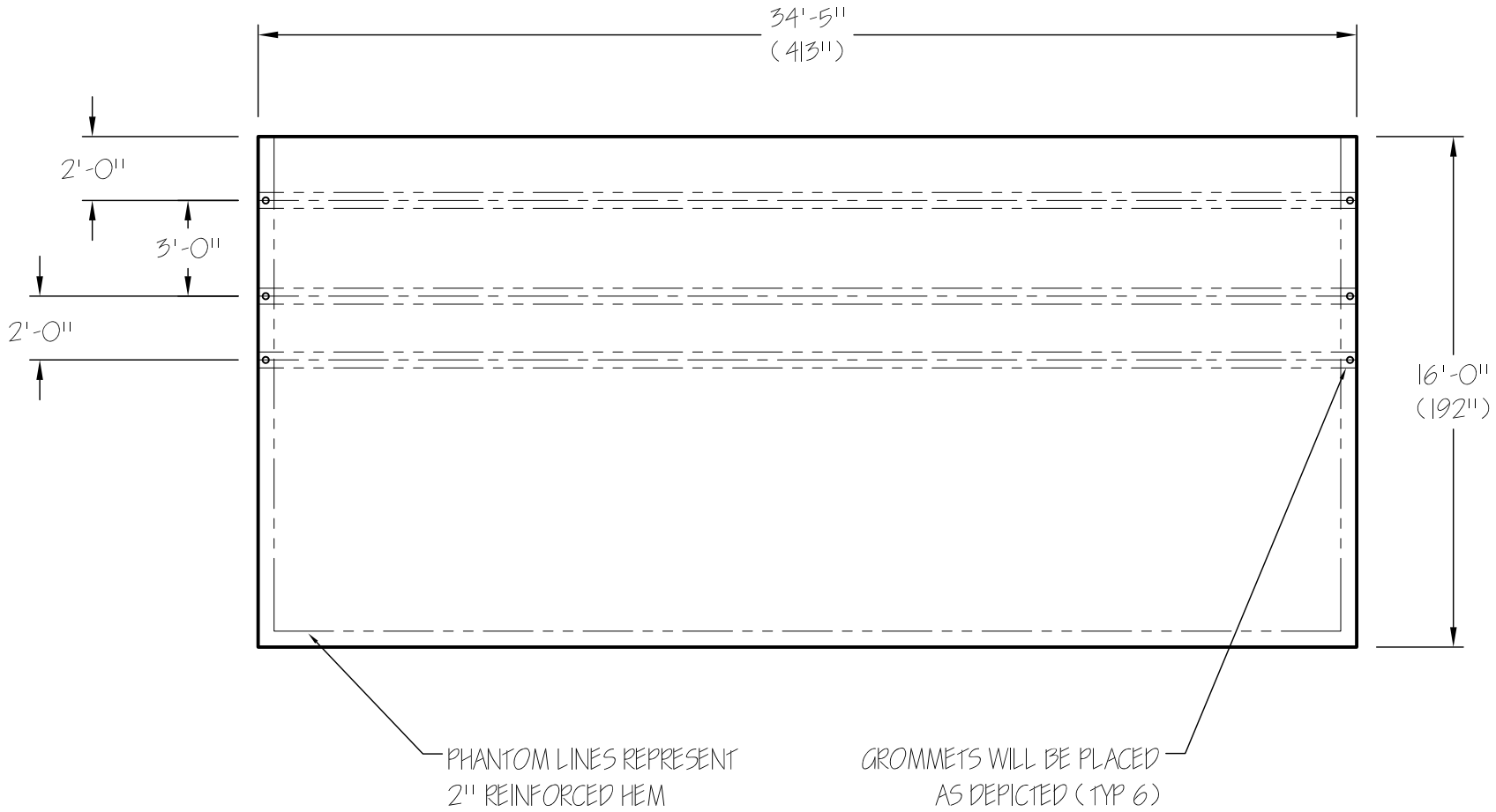
REEF INDUSTRIES, INC.	MATERIAL: TX-1600 GH	SALESMAN NAME & CODE: MY 0103	DRAWING: 1 OF 2	SO# McGILL ENVIRONMENTAL
	COLOR: CLEAR	DWG. BY: RC	ITEM 1 (SIDE DOOR)	DATE: 7-27-2012



CUSTOMER APPROVAL IS NECESSARY BEFORE PRODUCT CAN BE FABRICATED X _____

2001 REEF INDUSTRIES INC. All rights reserved. No part of this document may be reproduced or copied in any form or by any means without written permission from Reef Industries Inc.

REEF INDUSTRIES, INC.	MATERIAL: TX-1600 GH	SALESMAN NAME & CODE: MY 0103	DRAWING: 2 OF 2	SO# McGILL ENVIRONMENTAL
	COLOR: CLEAR	DWG. BY: RC	ITEM 2 (AISLE DOOR)	DATE: 7-27-2012



CUSTOMER APPROVAL IS NECESSARY BEFORE PRODUCT CAN BE FABRICATED X _____

2001 REEF INDUSTRIES INC. All rights reserved. No part of this document may be reproduced or copied in any form or by any means without written permission from Reef Industries Inc.