



# Building Permit Application

Howard County Maryland  
 Department of Inspections, Licenses and Permits  
 3430 Court House Drive  
 Permits: 410-313-2455  
 www.howardcountymd.gov

Date Received: \_\_\_\_\_

Permit No.: B15004446

Building Address: 7374 Gault Road Rd  
 City: Chesapeake State: MD Zip Code: 21029  
 Suite/Apt. #: \_\_\_\_\_ SDP/WP/BA #: \_\_\_\_\_  
 Census Tract: \_\_\_\_\_ Subdivision: Chesapeake  
 Section: \_\_\_\_\_ Area: \_\_\_\_\_ Lot: 2  
 Tax Map: 35 Parcel: 318 Grid: 22  
 Zoning: \_\_\_\_\_ Map Coordinates: \_\_\_\_\_ Lot Size: 2.9500

Existing Use: SDP  
 Proposed Use: SDP with propane tank  
 Estimated Construction Cost: \$ 8000  
 Description of Work:  
install 1000 gallon underground propane tank  
 Occupant or Tenant: \_\_\_\_\_  
 Was tenant space previously occupied?  Yes  No  
 Contact Name: \_\_\_\_\_  
 Address: owner  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_  
 Phone: \_\_\_\_\_ Fax: \_\_\_\_\_  
 Email: \_\_\_\_\_

Property Owner's Name: Sean Crumpton  
 Address: 7370 Gault Rd  
 City: Chesapeake State: MD Zip Code: 21029  
 Phone: \_\_\_\_\_ Fax: \_\_\_\_\_  
 Email: \_\_\_\_\_

Applicant's Name & Mailing Address, (If other than stated herein)  
 Applicant's Name: Jeremy Crumpton  
 Address: Po Box 1253  
 City: Chesapeake State: MD Zip Code: 21781  
 Phone: 410-313-2455 Fax: \_\_\_\_\_  
 Email: Jeremy.Crumpton@appliedandapproved.com

Contractor Company: TECH AIR  
 Contact Person: Jeff Conroy  
 Address: 1500 A-D Center Dr  
 City: Roseville State: MD Zip Code: 21227  
 License No.: CB161  
 Phone: 410-595-4322 Fax: \_\_\_\_\_  
 Email: \_\_\_\_\_

Engineer/Architect Company: \_\_\_\_\_  
 Responsible Design Prof.: \_\_\_\_\_  
 Address: Contractor  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_  
 Phone: \_\_\_\_\_ Fax: \_\_\_\_\_  
 Email: \_\_\_\_\_

Commercial Building Characteristics	Residential Building Characteristics	
Height:	<input type="checkbox"/> SF Dwelling <input type="checkbox"/> SF Townhouse	
No. of stories:	Depth	Width
Gross area, sq. ft./floor:	1 <sup>st</sup> floor:	
	2 <sup>nd</sup> floor:	
Area of construction (sq. ft.):	Basement:	
	<input type="checkbox"/> Finished Basement	
Use group:	<input type="checkbox"/> Unfinished Basement	
	<input type="checkbox"/> Crawl Space	
<b>Construction type:</b>	<input type="checkbox"/> Slab on Grade	
<input type="checkbox"/> Reinforced Concrete	No. of Bedrooms:	
<input type="checkbox"/> Structural Steel	<b>Multi-family Dwelling</b>	
<input type="checkbox"/> Masonry	No. of efficiency units:	
<input type="checkbox"/> Wood Frame	No. of 1 BR units:	
<input type="checkbox"/> State Certified Modular	No. of 2 BR units:	
	No. of 3 BR units:	
	Other Structure:	
	Dimensions:	
<input checked="" type="checkbox"/> <b>Roadside Tree Project Permit</b>	Footings:	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Roof:	
<b>Roadside Tree Project Permit #</b>	<input type="checkbox"/> State Certified Modular	
	<input type="checkbox"/> Manufactured Home	

Utilities	
<b>Water Supply</b>	
<input type="checkbox"/> Public	
<input checked="" type="checkbox"/> Private	
<b>Sewage Disposal</b>	
<input type="checkbox"/> Public	
<input checked="" type="checkbox"/> Private	
Electric: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Gas: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
<b>Heating System</b>	
<input type="checkbox"/> Electric <input type="checkbox"/> Oil	
<input type="checkbox"/> Natural Gas <input type="checkbox"/> Propane Gas	
<input type="checkbox"/> Other:	
<b>Sprinkler System:</b>	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Grading Permit Number:	
Building Shell Permit Number:	

THE UNDERSIGNED HEREBY CERTIFIES AND AGREES AS FOLLOWS: (1) THAT HE/SHE IS AUTHORIZED TO MAKE THIS APPLICATION; (2) THAT THE INFORMATION IS CORRECT; (3) THAT HE/SHE WILL COMPLY WITH ALL REGULATIONS OF HOWARD COUNTY WHICH ARE APPLICABLE THERETO; (4) THAT HE/SHE WILL PERFORM NO WORK ON THE ABOVE REFERENCED PROPERTY NOT SPECIFICALLY DESCRIBED IN THIS APPLICATION; (5) THAT HE/SHE GRANTS COUNTY OFFICIALS THE RIGHT TO ENTER ONTO THIS PROPERTY FOR THE PURPOSE OF INSPECTING THE WORK PERMITTED AND POSTING NOTICES.

Applicant's Signature: [Signature] Print Name: Jeremy Crumpton  
 Email Address: Jeremy.Crumpton@appliedandapproved.com Date: 9/27/15  
 Title/Company: owner

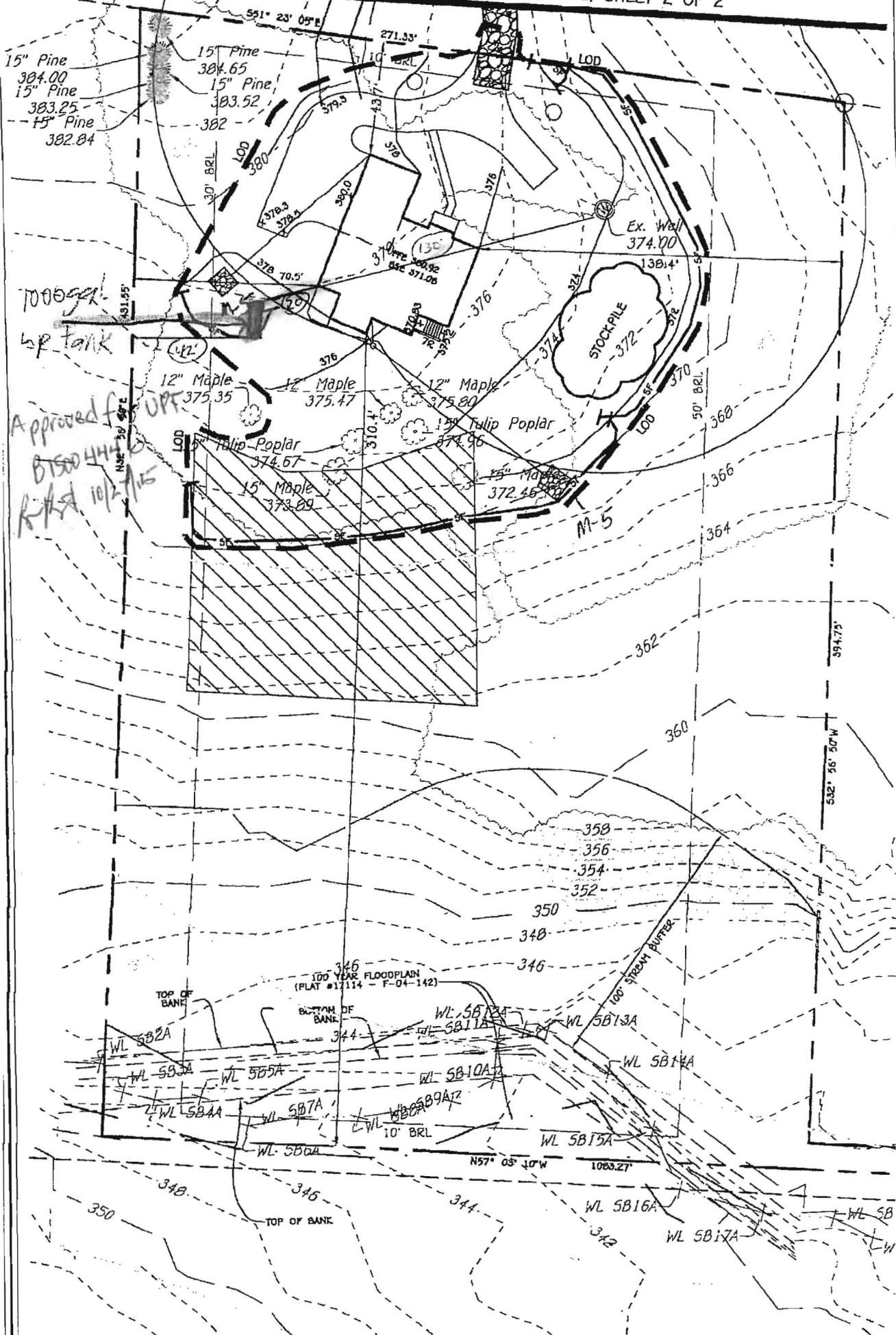
Checks Payable to: DIRECTOR OF FINANCE OF HOWARD COUNTY  
 \*\*PLEASE WRITE NEATLY & LEGIBLY\*\*  
 -FOR OFFICE USE ONLY-

AGENCY	DATE	SIGNATURE OF APPROVAL
State Highways		
Building Officials		
PSZA ( Zoning )		
PSZA ( Engineering )		
Health	<u>10/27/15</u>	<u>[Signature]</u>

Is Sediment Control approval required for issuance?  Yes  No  
 CONTINGENCY CONSTRUCTION START

DPZ SETBACK INFORMATION	
Front:	
Rear:	
Side:	
Side St.:	
All minimum setbacks met?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Is Entrance Permit Required?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Historic District?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Lot Coverage for New Town Zone:	
SDP/Red-line approval date:	

Filing Fee	\$
Permit Fee	\$
Tech Fee	\$ <u>110</u>
Excise Tax	\$
PSFS	\$
Guaranty Fund	\$
Add'l per Fee	\$
Total Fees	\$
Sub-Total Paid	\$
Balance Due	\$
Check	# <u>410</u>



**OWNER**  
 SEAN & JEANNINE GRANTHAM  
 7370 GUILFORD ROAD  
 CLARKSVILLE, MARYLAND 21029

**BUILDER**  
 VIKING CUSTOM HOMES  
 12800 FREDERICK ROAD  
 WEST FRIENDSHIP, MARYLAND 21794  
 410-489-6728

**PERMIT PLAN**

**7374 GUILFORD ROAD**

**FISHER, COLLINS & CARTER, INC.**  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE  
 ELICOTT CITY, MARYLAND 21042  
 (410) 461 - 2855

ZONED RC-DEO  
 TAX MAP No. 35 GRID No. 22 PARCEL No. 318  
 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
 SCALE: 1"=50' DATE: MAY, 2015  
 SHEET 1 OF 2

**MASONRY VENEER LINTELS - ALLOWABLE SPANS**

ANDERSON - 400 SERIES - LOW E - DOUBLE HUNG TILT WASH	EQUIVALENT OR BETTER			
SIZE OF STEEL ANGLE	NO STORY ABOVE	ONE STORY ABOVE	TWO STORY ABOVE	# OF 1/2" OF EQ. REIN. BARS
3 x 3 x 1/4	4'-0"	4'-4"	3'-0"	1
4 x 3 x 1/4	8'-0"	6'-0"	4'-4"	1
5 x 3-1/2 x 5/16	10'-0"	8'-0"	4'-0"	2
6 x 3-1/2 x 5/16	14'-0"	9'-4"	7'-0"	2
(2) 6 x 3-1/2 x 5/16	10'-0"	8'-0"	4'-0"	4

- A. LONG LEG OF ANGLE SHALL BE PLACED IN VERTICAL POSITION
- B. DEPTH OF REINFORCED LINTELS SHALL NOT BE LESS THAN 8 INCHES AND CELLS OF HOLLOW MASONRY LINTELS SHALL BE GROUTED SOLID. REINFORCING BARS SHALL EXTEND NOT LESS THAN 8 INCHES INTO SUPPORT.
- C. STEEL MEMBERS INDICATED ARE ADEQUATE TYPICAL EXAMPLES - OTHER STEEL MEMBERS MEETING STRUCTURAL DESIGN REQUIREMENTS MAY BE USED.

**HEADER SPANS - PER IRC SECTION R502**

**EXTERIOR BEARING WALLS**

HEADERS SUPPORTING	SIZE	BUILDING WIDTH IN FEET					
		20		36			
		SPAN	# OF JACKS	SPAN	# OF JACKS		
ROOF AND CEILING	2-2x8	4'-10"	1	5'-11"	2	5'-4"	2
	2-2x10	8'-5"	2	7'-3"	2	6'-6"	2
	2-2x12	9'-9"	2	8'-5"	2	7'-4"	2
	3-2x8	8'-4"	1	7'-5"	1	4'-8"	1
	3-2x10	10'-4"	1	9'-1"	2	8'-2"	2
ROOF, CEILING AND ONE CENTER BEARING FLOOR	3-2x12	12'-2"	2	10'-7"	2	9'-5"	2
	2-2x8	5'-9"	2	5'-0"	2	4'-4"	2
	2-2x10	7'-0"	2	6'-2"	2	5'-4"	2
	2-2x12	8'-1"	2	7'-1"	2	6'-5"	2
	3-2x8	7'-2"	1	4'-3"	2	5'-8"	2
ROOF, CEILING AND ONE CLEAR SPAN FLOOR	3-2x10	8'-9"	2	7'-8"	2	4'-11"	2
	3-2x12	10'-2"	2	8'-11"	2	8'-0"	2
	2-2x8	5'-0"	2	4'-4"	2	3'-10"	2
	2-2x10	6'-1"	2	5'-3"	2	4'-8"	2
	2-2x12	7'-1"	2	6'-1"	2	5'-8"	3
ROOF, CEILING AND TWO CENTER BEARING FLOORS	3-2x8	4'-3"	2	5'-5"	2	4'-10"	2
	3-2x10	7'-7"	2	6'-7"	2	5'-11"	2
	3-2x12	8'-10"	2	7'-8"	2	6'-10"	2
	2-2x8	4'-9"	2	4'-2"	2	3'-9"	2
	2-2x10	5'-9"	2	5'-1"	2	4'-7"	3
ROOF, CEILING AND TWO CLEAR SPAN FLOORS	2-2x12	6'-8"	2	5'-10"	3	5'-3"	3
	3-2x8	5'-11"	2	5'-2"	2	4'-8"	2
	3-2x10	7'-3"	2	6'-4"	2	5'-8"	2
	3-2x12	8'-5"	2	7'-4"	2	6'-7"	2
	2-2x8	3'-10"	2	3'-4"	2	3'-0"	3

**INTERIOR BEARING WALLS**

HEADERS SUPPORTING	SIZE	BUILDING WIDTH IN FEET					
		20		36			
		SPAN	# OF JACKS	SPAN	# OF JACKS		
ONE FLOOR ONLY	2-2x4	4'-4"	1	3'-11"	1	3'-6"	1
	2-2x8	5'-9"	1	5'-0"	2	4'-5"	2
	2-2x10	7'-0"	2	6'-1"	2	5'-6"	2
	2-2x12	8'-1"	2	7'-0"	2	6'-3"	2
TWO FLOORS	2-2x4	3'-2"	2	2'-9"	2	2'-8"	3
	2-2x8	4'-1"	2	3'-4"	2	3'-2"	2
	2-2x10	4'-11"	2	4'-3"	2	3'-10"	3
	2-2x12	5'-9"	2	5'-0"	3	4'-5"	3

- A. SPANS ARE GIVEN IN FEET AND INCHES.
- B. TABULATED VALUES ASSUME #2 GRADE DOUGLAS FIR LARCH, HEM FIR, SOUTHERN PINE OR SPRUCE PINE FIR.
- C. BUILDING WIDTH IS MEASURED PERPENDICULAR TO RIDGE. FOR WIDTHS IN BETWEEN THOSE SHOWN, SPANS ARE PERMITTED TO BE INTERPOLATED.
- D. WHERE THE NUMBER OF REQUIRED JACK STUDS EQUALS ONE, THE HEADER IS PERMITTED TO BE SUPPORTED BY AN APPROVED FRAMING ANCHOR ATTACHED TO THE FULL-HEIGHT STUD AND TO THE HEADER.

**WINDOW SCHEDULE VERIFY PER PLANS**

**MJ/CAPITOL - 9555 SERIES - DOUBLE HUNG**

WINDOW SIZE	MINIMUM ROUGH OPENING (HxW)	CLEAR OPENING AREA	EGRESS WINDOW
20310	49-1/4" x 26-1/8"		NO
2832	41-1/4" x 34-1/8"		NO
2852	45-1/4" x 34-1/8"	5.85 S.F.	YES
2862	77-1/4" x 34-1/8"	6.82 S.F.	YES
4040	53-1/4" x 38-1/8"		NO

**DOOR SCHEDULE EXTERIOR ONLY**

**THERMA TRU - Builder Grade VERIFY SIZE WITH SUPPLIER**

DOOR DESIGNATION	MINIMUM ROUGH OPENING (HxW)	DESCRIPTION
S.G.D. 5068	80" x 40"	
3068 W/ SIDELITES/TRANSOM	94" x 64-3/8"	FRONT ENTRY
3068	80" x 34"	

**STRUCTURAL PANELS FOR ROOF AND SUBFLOOR SHEATHING (TABLE R503.2.1.1(1))**

	SPAN RATING	NOMINAL THICKNESS	MAX SPAN
ROOF	24/16	1/2	16
SUBFLOOR	48/24	3/4	24

**REINFORCED CONCRETE FOUNDATION WALLS**

THICKNESS	MAX. WALL HEIGHT	MAXIMUM UNBALANCED FILL	MIN. REIN. SIZE AND SPACING
8"	9'-0"	8'-0"	#5 @ 40" O.C.
10"	9'-0"	8'-0"	#4 @ 40" O.C.

**NOTES:**

- DOUBLE ALL FLOOR JOISTS UNDER WALLS ABOVE, THAT ARE FRAMED PARALLEL TO FLOOR FRAMING UNLESS NOTED OTHERWISE ON THE PLANS.
- WHERE APPLICABLE, BALLOON FRAME EXTERIOR WALLS TO BE 2x4 SPF #2 OR BETTER STUDS @ 12" O.C. UNLESS OTHERWISE NOTED
- ALL FLOOR JOISTS, CEILING JOISTS & RAFTERS ARE TO BE S.P.F.
- ALL BEAMS, GIRDERS AND HEADERS ARE TO BE DOUG. FIR LARCH #2 OR BETTER WITH A FB RATING OF #7S AND MODULUS OF ELASTICITY OF 1,600,000 MIN. U.N.O.
- ALL HEADERS TO BE 2x10S UNLESS NOTED OTHERWISE
- ALL LAMINATED VENEER LUMBER (LVL) BEAMS, GIRDERS AND HEADERS LABELED ON THE PLANS, TO HAVE A FB RATING OF 2.950 AND MODULUS OF ELASTICITY OF 2,000,000 MIN. UNLESS OTHERWISE NOTED. STRUCTURAL LAMINATED BEAMS TO BE INSTALLED AS PER MANUFACTURERS SPECIFICATIONS.
- ALL STRUCTURAL OPENINGS TO RECEIVE MIN. 3-2x10 HEADERS W/ 1/2" FILLER & 1 JACK STUD EACH END UNLESS NOTED OTHERWISE
- PROVIDE SOLID 2x10 BLOCKING TO BE LOCATED BETWEEN FLOOR JOISTS WHERE POSTS, FROM ABOVE, CARRYING STRUCTURAL HEADERS LAND BETWEEN FLOOR JOIST BELOW. BLOCKING TO BE BUILT UP TO THE SAME WIDTH AS POST IT IS CARRYING ABOVE.
- PROVIDE ADEQUATE CLEARANCE @ PLUMBING STACKS AS REQ.
- ALL DIMENSIONS MUST BE VERIFIED IN THE FIELD BY THE CONTRACTOR BEFORE START OF CONSTRUCTION. ANY DISCREPANCIES ON THE PLANS, OR SPECIFICATIONS, MUST BE REPORTED TO THE ARCHITECT OR ENGINEER PRIOR TO THE START OF CONSTRUCTION.
- ANY VARIATION FROM THESE PLANS THAT WILL REQUIRE CHANGES TO THE STRUCTURAL MEMBERS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT IMMEDIATELY.
- WHERE APPLICABLE, REFER TO ENGINEERED LUMBER MFR'S SPECIFICATIONS FOR MULTI-MEMBER INSTALLATION & CONNECTION REQUIREMENTS
- FASTEN MULTIPLE MEMBER JACKS TOGETHER W/ MIN. 10d NAILS @ 8" O.C. STAGGERED ALONG ENTIRE LENGTH OF MEMBERS. PROVIDE NAILING W/IN 3" OF TOP OR BOTTOM OF MEMBERS.
- FASTEN MULTIPLE MEMBER BEAMS TOGETHER W/ MIN 16d NAILS @ 12" O.C. STAGGERED ALONG ENTIRE LENGTH OF MEMBERS. TWO ROWS REQUIRED FOR DEPTHS UP TO 12". THREE ROWS REQUIRED FOR DEPTHS OF 12'-18". PROVIDE NAILING W/IN 22" OF EACH END OF MEMBERS. FOR BEAMS 7" OR GREATER IN WIDTH PROVIDE BOLTED CONNECTION W/ ASTM GRADE A-307 (OR BETTER) 1/2" DIA. BOLTS IN TWO ROWS 3" FROM EACH END OF BEAM @ 24" O.C. STAGGERED.

**DESIGN CRITERIA**

**CLIMATE AND GEOGRAPHIC DESIGN CRITERIA - table 301.2 (1)**

GROUND SNOW LOAD (lbs./s.f.)	30	
WIND PRESSURE (pounds per square foot)	17 +/- ( 90 m.p.h.)	
SEISMIC CONDITION BY ZONE	B	
SUBJECT TO DAMAGE	WEATHERING	SEVERE
	FROST LINE DEPTH	30
	TERMITES	MODERATE
	DECAY	MODERATE
WINTER DESIGN TEMP. FOR HEAT. FACILITIES	13'	
RADON RESISTANT CONSTRUCTION REQ		
FLOOD ZONE		

**CODE INFORMATION**

ALL WORK SHALL COMPLY WITH INTERNATIONAL CODE W/ LOCAL AMENDMENTS

- International Residential Code, 2012 Edition
- 2011 National Electrical Code with Local Amendments (NFP5 70)
- International Mechanical Code, 2012 Edition
- The Life Safety Code, 2012 Edition
- 2009 National Standard Plumbing Code illustrated
- 2009 National Fuel Gas Code (NFPA 54)
- International Energy Conservation Code, 2012 Edition

**DRAWING LIST**

0.01	COVER SHEET
0.02	GENERAL INFO
1.01	ELEVATIONS
2.01	FOUNDATION PLAN
3.01	FIRST FLOOR PLAN
4.01	SECOND FLOOR PLAN
4.51	BRACING PLANS
4.53	BRACING DETAILS
5.01	SECTIONS
5.02	SECTIONS
5.03	SECTIONS

**AREA INFO**

FLOOR	SQUARE FOOTAGE
BASEMENT	1,652 s.f.
FIRST FLOOR	1,792 s.f.
SECOND FLOOR	1,824 s.f.
GARAGE	606 s.f.
TOTAL	5,268 s.f.

CONTACT:  
CARY CUMBERLAND  
1715 Archers Glen  
Sykesville, MD 21784  
MHRR # 1185  
(410) 489-4728  
www.VikingCustomHomes.com



**Grantham Residence**

PROJECT NO:  
Grantham-01

**REVISIONS**

11-14-14	REVIEW SET
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ISSUE DATES:  
01-04-15 REVISION

SCALE: N/A

**COVER SHEET**

**0.01**

DATE:  
January 09, 2015



ALL TRUSS OVERHANGS/EAVES ARE SHOWN AT 12"

CONTINUOUS EDGE VENT, TYP.  
PROVIDE 1/2" GAP IN BREATHING

TYPOH (OR EQUAL)  
LOUVER, TYP.

TYPICAL ROOF  
FIBERGLASS SHINGLES OVER  
15# ROOFING FELT OVER  
7/16" OSB W/CUTS

PREFIN ALUM DS & G

STONE VENEER, TYP.

STANDARD HORIZONTAL  
SIDING, TYP.

NON-STRUCTURAL CRAFTSMAN  
COLUMNS, TYP. 4" Top -  
2" Bottom / 14" Top  
PLUS CAP AND BASE -  
LOAD BEARING POSTS INSIDE

PANEL SHUTTERS, TYP.

STONE PIERS, TYP.

CONCRETE PORCH  
AND STEPS

ASSUMED GRADE  
SLOPES 4" IN FIRST 10'-0"

CONCRETE FOUNDATION WALL  
STONE TO GRADE PER COMMUNITY  
REQUIREMENTS, TYP.

CONT. CONC. FOOTING  
CONCRETE FOOTER AT LEAST 36" BELOW GRADE



COM FBS SERIES, TYP.

COLEAR IMPRESSION VINYL SIDING, TYP.

PREFIN ALUM DS & G

PANEL SHUTTERS, TYP.

STONE LEDGE, TYP.

STONE VENEER WATERTABLE

ASSUMED GRADE  
SLOPES 4" IN FIRST 10'-0"

NOTE:  
WHEN PAIR IS REQUIRED BY CODE AT STAIR  
WITH 1 OR MORE EDES, (DEPEND ON JURISDICTION)  
ADJACENT WIDTH OF CONCRETE STEPS TO CO-ORDINATE  
WITH CORNERS OF OPENING, TYP.

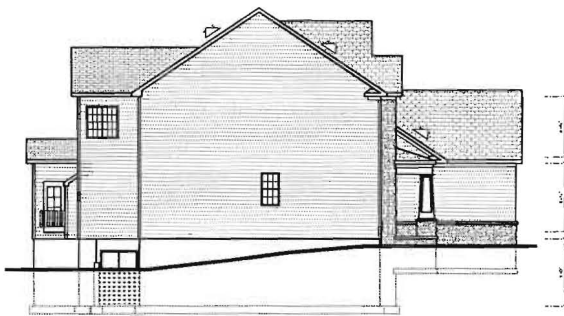
NOTE:  
STAIRS WITH 2 OR MORE EDES SHALL BE PROVIDED WITH HANDRAILS. HANDRAILS SHALL  
BE A MINIMUM OF 36" IN HEIGHT AND NOT MORE THAN 36" IN HEIGHT. RAILS ARE TO BE  
MEASURED VERTICALLY FROM THE ROUNDED OF THE TREADS.

PORCHES, DECKS, BALCONIES OR RAISED FLOOR SURFACES LOCATED MORE THAN 30" ABOVE  
THE FLOOR OR GRADE BELOW SHALL HAVE GUARDS A MINIMUM OF 36" HIGH.

PIERS ARE TO BE CLOSED SUCH THAT THE OPENING BETWEEN THE TREADS DOES NOT  
FRAME THE PASSAGE OF A 4" DIA. SPHERE



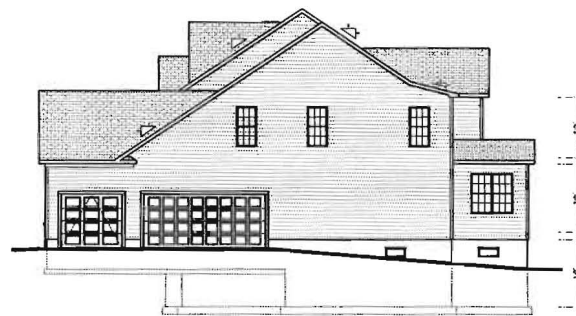
FRONT ELEVATION



LEFT ELEVATION  
1/8"=1'-0"



REAR ELEVATION  
1/8"=1'-0"



RIGHT ELEVATION  
1/8"=1'-0"

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**VIKING**  
CUSTOM HOMES  
"Life Unfolds Here"



**Grantham  
Residence**

PROJECT NO:  
Grantham-01

REVISIONS

▲	11-16-14	REVIEW SET
▲		
▲		
▲		
▲		

ISSUE DATES:  
01-06-15 REVISION

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

ELEVATIONS  
**1.01**

DATE:  
January 09, 2015





CONTACT:  
 CARY CUMBERLAND  
 1715 Archers Glen  
 Sparksville, MD 21784  
 AUBR # 81185  
 TEL: 410-469-4728  
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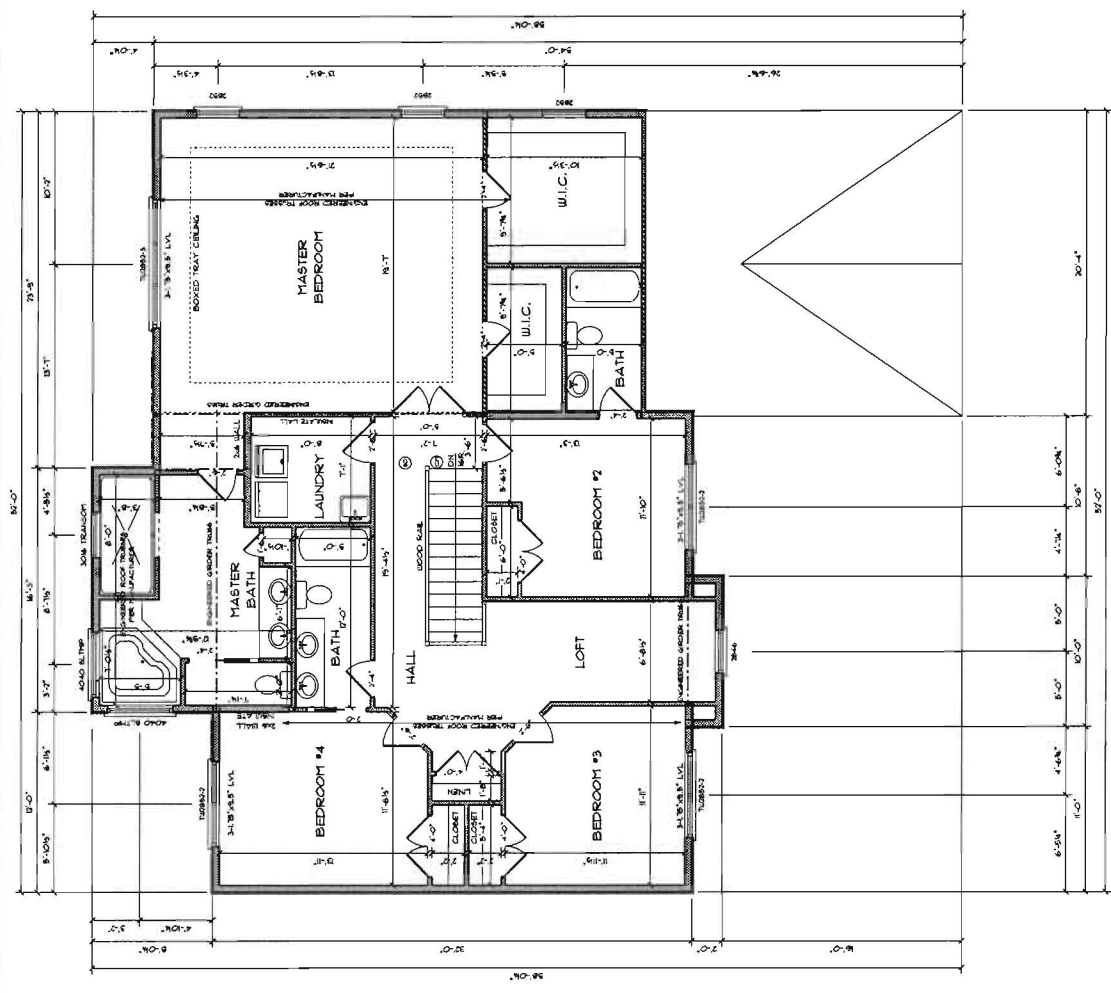
PROJECT NO:  
 Grantham-01

REVISIONS  
 11.14.14 REVIEW SET

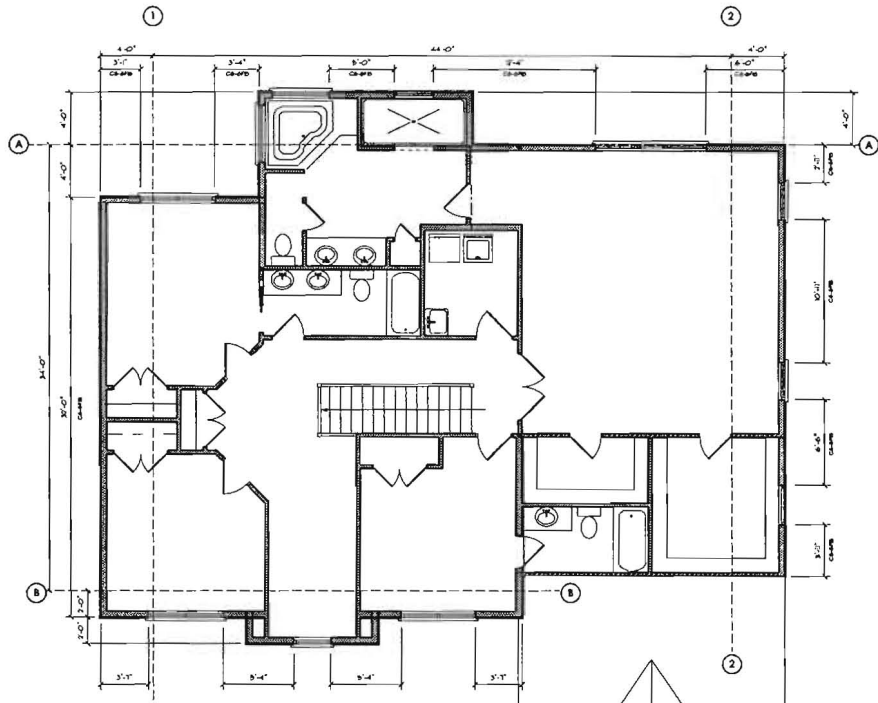
ISSUE DATES:  
 01.04.15 REVISION

SCALE: 1/4" = 1'-0"  
 SECOND FLOOR

**4.01**  
 DATE: January 19, 2015

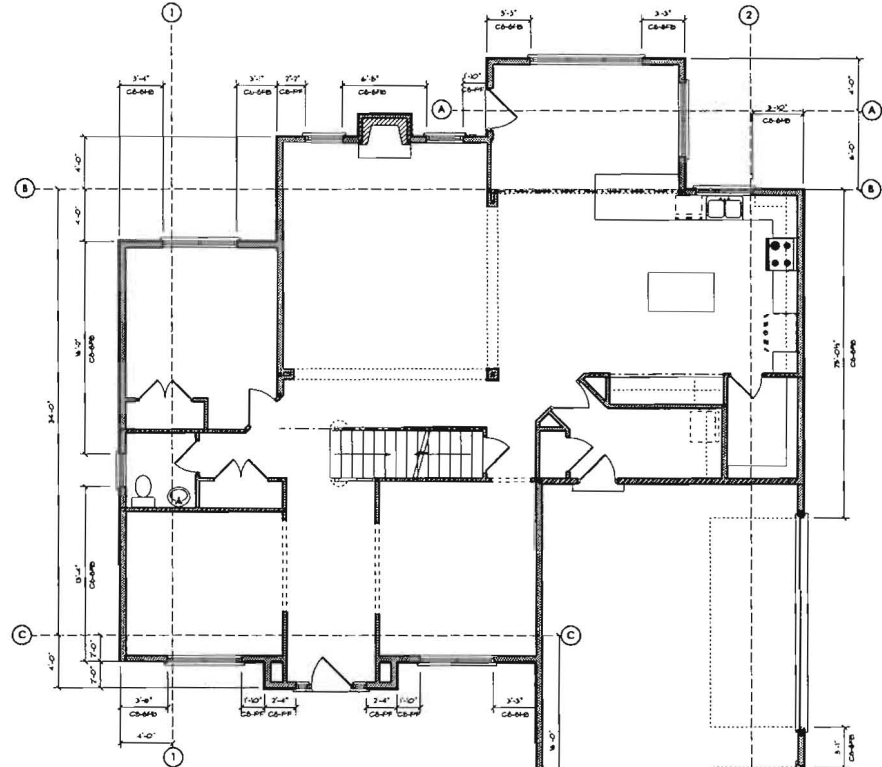


- ALL DESIGNATED EXTERIOR BRACED WALLS SHALL BE A MINIMUM 1/4" PANEL SHEATHING ATTACHED TO FRAMING WITH 8d COMMON NAILS @ 6" O.C. AT PANEL EDGES AND 12" O.C. AT INTERMEDIATE FRAMING MEMBERS. SOLE PLATS SHALL BE FASTENED TO JOIST OR SOLID WOOD BLOCKING WITH (3) 16d NAILS AT 16" O.C. RIM JOIST TO PLATE OR SILL 8d @ 6" O.C. TO ENAIL.
- ALL EXTERIOR WALL CORNERS SHALL BE FRAMED PER DETAIL.
- ALL DESIGNATED INTERIOR BRACED WALLS SHALL BE MIN 1/2" GYPSUM BOARD APPLIED TO BOTH FACES OF FRAMING WITH ADHESIVE AND TYPE 8 OR W SCREWS AT 24" O.C.
- DESIGNATED NARROW WALL BRACING SHALL BE CONSTRUCTED IN ACCORDANCE WITH BRACED WALL DETAILS.
- TENSION HOLD DOWN STRAP OF 800# - (6) MP50N CH814 STRAP W/ 15-16d NAILS EACH END



SECOND FLOOR CALCULATIONS

BRACED WALL LINE	WALL PANEL TYPE	NET REQUIRED WALL BRACING FT.	ACTUAL PROVIDED WALL BRACING FT.
A	CS-SB	1.62	25.72
B	CS-SB	1.62	17.82
1	CS-SB	1.62	23.00
2	CS-SB	1.62	24.41



FIRST FLOOR CALCULATIONS

BRACED WALL LINE	WALL PANEL TYPE	NET REQUIRED WALL BRACING FT.	ACTUAL PROVIDED WALL BRACING FT.
A	CS-SB	3.01	4.30
B	CS-SB	14.82	24.27
C	CS-SB	14.82	22.17
D	CS-SB	11.36	14.27
1	CS-SB	16.82	29.87
2	CS-SB	16.82	30.86

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 www.VikingCustomHomes.com

**VIKING**  
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*"Life Unfolds Here"*



**Grantham  
 Residence**

PROJECT NO:  
 Grantham-01

REVISIONS

▲	11-16-14	REVIEW SET
▲		
▲		
▲		

ISSUE DATES:  
 01-06-15 REVISION

SCALE:  
 PLAN BRACING

**4.51**

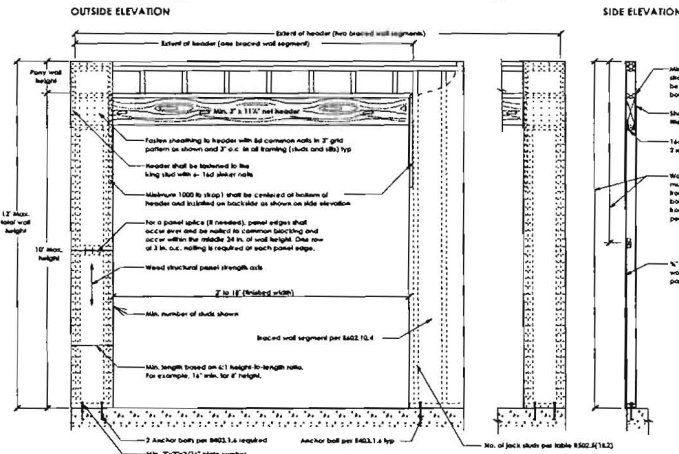
DATE:  
 January 09, 2015

## NOTES

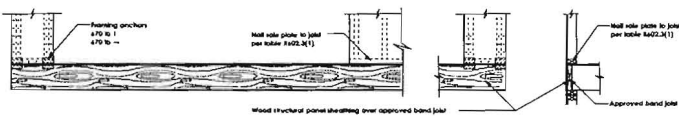
Methods WSP & CS-WSP: Min. 7/16" OSB Wood Structural Panel sheathing attached to framing with 6d at 6" o.c. at panel edges and 12" o.c. at intermediate framing members.

Note: All Braced Wall Lines incorporating Continuously Sheathed bracing methods (CS-WSP & CS-PF), all exterior walls along the Braced Wall Line must be fully sheathed with min 7/16" OSB Wood Structural Panel sheathing fastened per IRC 2009 Tables R602.3(1), R602.3(2), and R602.3(3).

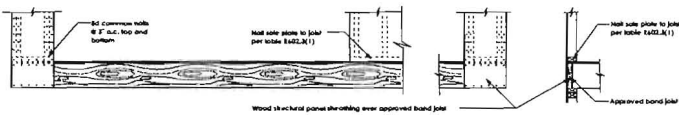
Method GB: Min. 1/2" gypsum board applied to each side of framing with adhesive and Type S or W screws @ 7" o.c. at panel edges and 24" o.c. at intermediate framing members or nails per IRC 2009 Table R702.3.5 @ 7" o.c. at panel edges and 16" o.c. at intermediate framing members.



OVER CONCRETE OR MASONRY BLOCK FOUNDATION

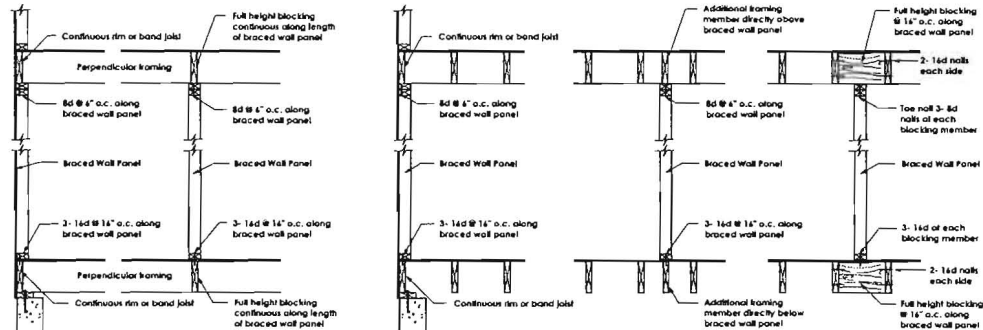


OVER RAISED WOOD FLOOR OR SECOND FLOOR - FRAMING ANCHOR OPTION



OVER RAISED WOOD FLOOR OR SECOND FLOOR - WOOD STRUCTURAL PANEL OVERLAP OPTION

CS-PF Continuous Portal Frame  
NOT TO SCALE

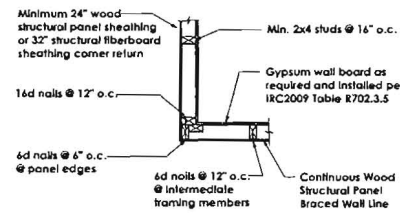


BRACED WALL PANEL CONNECTION WHEN PERPENDICULAR TO FLOOR/CEILING FRAMING

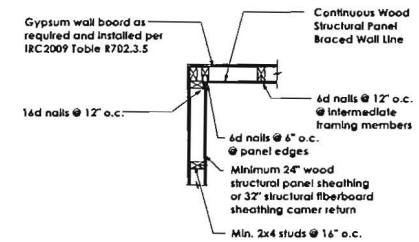
BRACED WALL PANEL CONNECTION WHEN PARALLEL TO FLOOR/CEILING FRAMING

## Braced Wall Panel Connections to Floor and Ceiling Framing

NOT TO SCALE



OUTSIDE CORNER

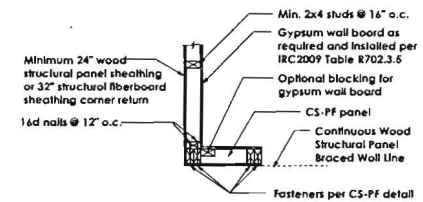


INSIDE CORNER

## Tension Strap Capacity Required for Method CS-PF

Maximum Wall Shear Framing Horizontal Size and Grade	Aluminum Framing Total Wall Height (feet)	Maximum Tensile Load Height (feet)	Minimum Opening Width (feet)	2002 Tension strap capacity required (lbs)		
				Exposure B	Exposure C	
2x4 No. 2 Grade	10	0	18	1000	1000	
		2	14	1800	2218	
		4	10	1300	2735	
		6	6	1000	3300	
		8	2	500	3900	
		10	0	0	4500	
	2	12	0	18	1000	1000
			2	14	1800	2218
			4	10	1300	2735
			6	6	1000	3300
			8	2	500	3900
			10	0	0	4500
2x4 Stud Grade	2	0	18	2000	2000	
		2	14	2400	4100	
		4	10	1800	4775	
		6	6	1300	5500	
		8	2	650	6300	
		10	0	0	7100	

Note: 1. Basic Wind Speed of 90mph. For other basic Wind Speeds, see IRC 2009 Table R602.10.1.1  
2. 04 = Design Required



GARAGE CORNER

Corner Framing Details  
NOT TO SCALE

CONTACT:  
CARY CUMBERLAND  
1715 Archers Glen  
Sylva, NC 28784  
MH#R #1185  
(410) 487-6728  
www.VikingCustomHomes.com

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**Grantham Residence**

PROJECT NO:  
Grantham-01

REVISIONS

11-16-14 REVIEW SET

ISSUE DATES:  
01-06-15 REVISION

SCALE:  
BRACING DETAILS

**4.53**  
DATE: January 09, 2015

CONTACT:  
 CARY CUMBERLAND  
 1713 ARCHWAY ROAD  
 SPYGLASS HILLS, MD 21154  
 (410) 487-4728  
 www.vikingcustomhomes.com

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# Grantham Residence

PROJECT NO:  
 Grantham-01

REVISIONS  
 11-14-14 REVIEW SET

ISSUE DATES:  
 01-08-15 REVISION

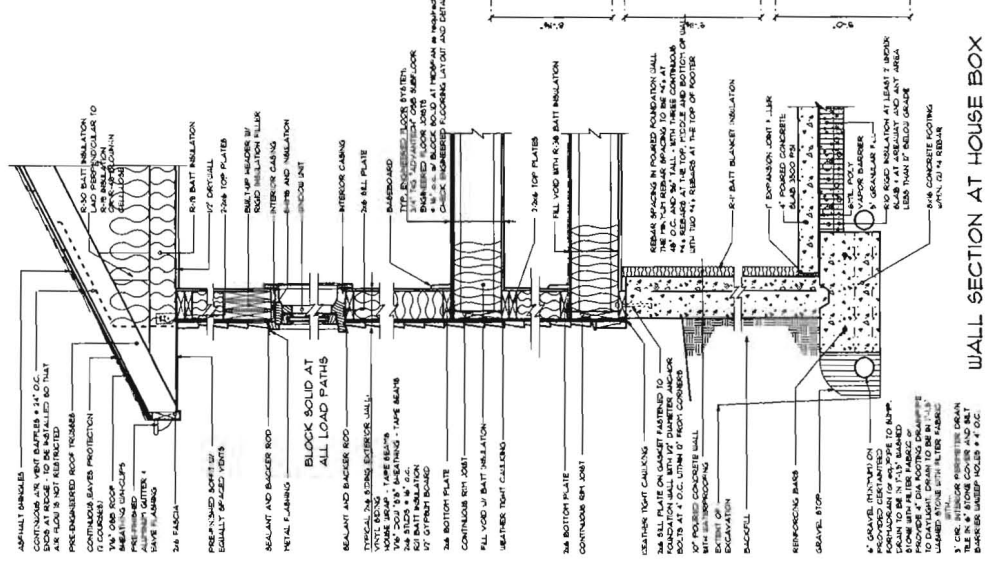
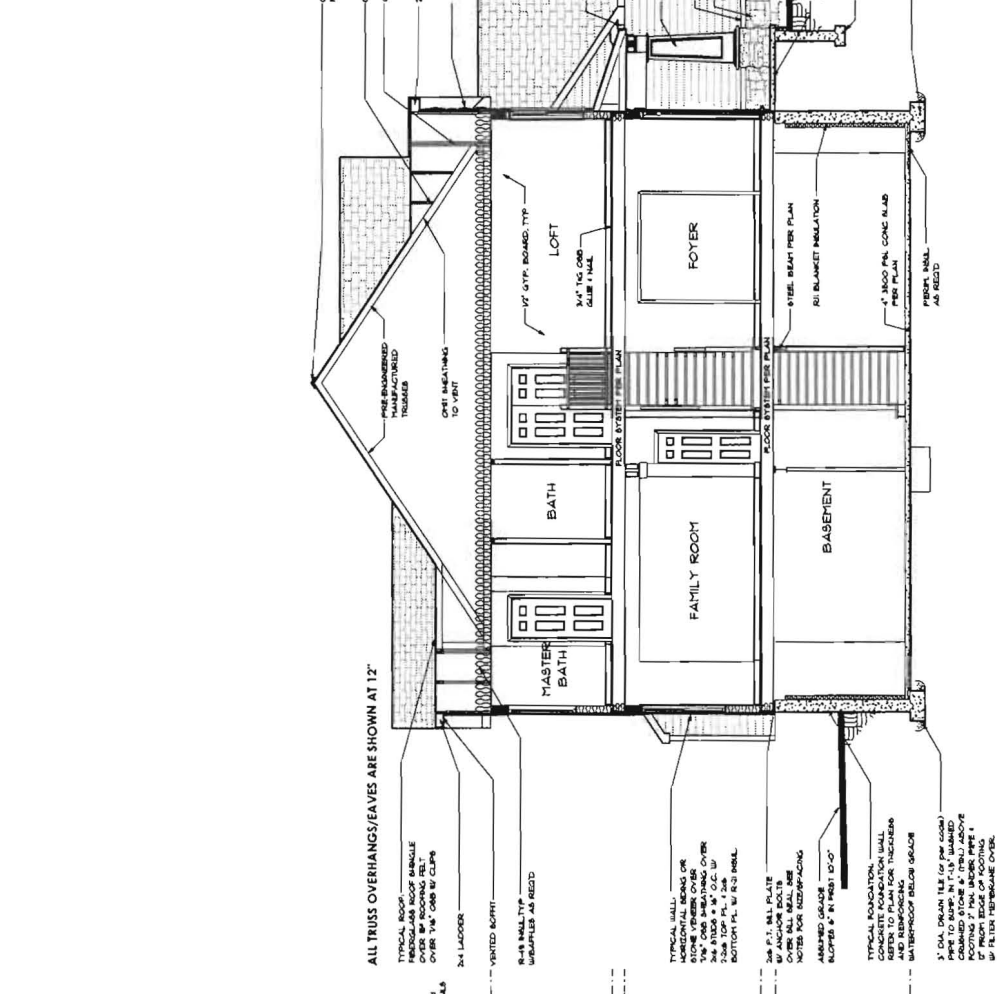
SCALE: 1/4" = 1'-0"

SECTION A-A

# 5.01

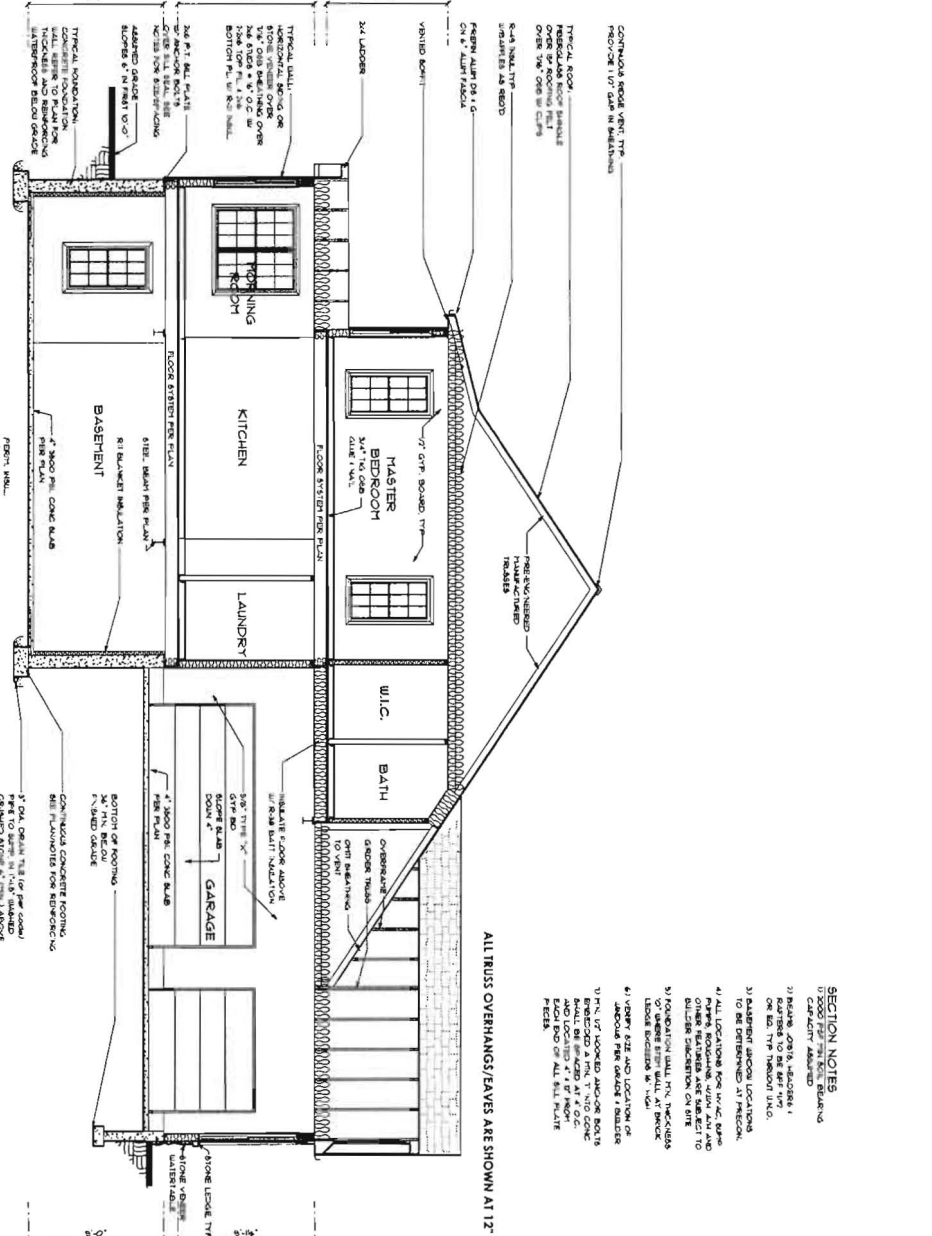
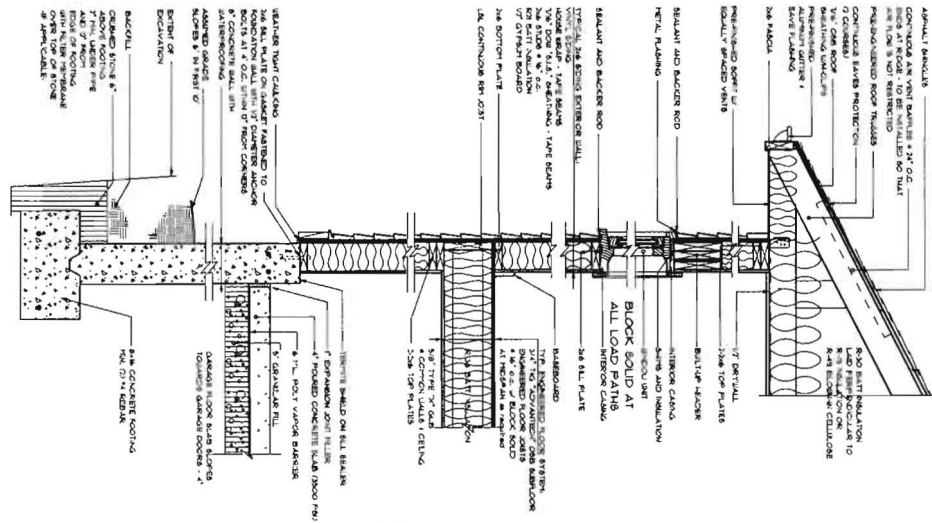
DATE: January 09, 2015

- SECTION NOTES**
- 1) ALL ROOFING CAPACITY LIMITED.
  - 2) BRACKLE JOHN READERS & RAFTERS TO BE 8"X12" OR 8"X10" TYP. THROUGHT LIND.
  - 3) SHEATHING BRACKLE LOCATION TO BE DETERMINED AT PRECEDE.
  - 4) ALL LOCATIONS FOR HVAC, SEPTIC, WATER, GAS, ETC. OTHER FEATURES ARE SUBJECT TO BUILDER DISCRETION ON SITE.
  - 5) FOUNDATION SHALL PER. THUNDERBOLT ANCHORS SHALL BE LOCATED EXTERIOR 3" FROM EDGE OF FOOTING.
  - 6) VERIFY SIZE AND LOCATION OF UNIFORM PER. GRADE 1 INCHER.
  - 7) PER. 1/2" UNIFORM ANCHOR BOLTS ENCASED 4" MIN. 1" INTO CONC. AND LOCATED 4" FROM FACE AND 1/2" FROM EACH END OF ALL BULL PLATE PIECES.
  - 8) CONTINUOUS INSIDE VENT. TYP. PROVIDE 1/2" GAP IN SHEATHING OVERHANGS.
  - 9) GREYER TRUSS.
  - 10) 2x4 LADDER.
  - 11) STONE VENEER TYP.
  - 12) 1/2" GYP. BOARD, TYP.
  - 13) 3/4" X 6" OMB GLEB 1" HALL.
  - 14) CRAFTSMAN COLUMNS.
  - 15) STONE LEDGE TYP.
  - 16) STONE VENEER WATERFALL.
  - 17) CONCRETE MURCH AND SLIPS.
  - 18) BOTTOM OF FOOTING 3" MIN. BEAD FISHED GRADE.
  - 19) CONTINUOUS CONCRETE FOOTING. SEE PLAN NOTES FOR REINFORCING.



WALL SECTION AT HOUSE BOX

WALL SECTION AT GARAGE



- SECTION NOTES**
- 1) ALL LOCATIONS FOR W.I.C. BATH, KITCHEN, AND LAUNDRY ARE SHOWN AT 12" OVERHANGS/FAVES ARE SHOWN AT 12"
  - 2) FOUNDATION WALL FIN. TRUCKS ARE TO BE SHOWN AT 12" OVERHANGS/FAVES ARE SHOWN AT 12"
  - 3) ALL LOCATIONS FOR W.I.C. BATH, KITCHEN, AND LAUNDRY ARE SHOWN AT 12" OVERHANGS/FAVES ARE SHOWN AT 12"
  - 4) ALL LOCATIONS FOR W.I.C. BATH, KITCHEN, AND LAUNDRY ARE SHOWN AT 12" OVERHANGS/FAVES ARE SHOWN AT 12"
  - 5) ALL LOCATIONS FOR W.I.C. BATH, KITCHEN, AND LAUNDRY ARE SHOWN AT 12" OVERHANGS/FAVES ARE SHOWN AT 12"
  - 6) ALL LOCATIONS FOR W.I.C. BATH, KITCHEN, AND LAUNDRY ARE SHOWN AT 12" OVERHANGS/FAVES ARE SHOWN AT 12"
  - 7) ALL LOCATIONS FOR W.I.C. BATH, KITCHEN, AND LAUNDRY ARE SHOWN AT 12" OVERHANGS/FAVES ARE SHOWN AT 12"
  - 8) ALL LOCATIONS FOR W.I.C. BATH, KITCHEN, AND LAUNDRY ARE SHOWN AT 12" OVERHANGS/FAVES ARE SHOWN AT 12"
  - 9) ALL LOCATIONS FOR W.I.C. BATH, KITCHEN, AND LAUNDRY ARE SHOWN AT 12" OVERHANGS/FAVES ARE SHOWN AT 12"
  - 10) ALL LOCATIONS FOR W.I.C. BATH, KITCHEN, AND LAUNDRY ARE SHOWN AT 12" OVERHANGS/FAVES ARE SHOWN AT 12"
  - 11) ALL LOCATIONS FOR W.I.C. BATH, KITCHEN, AND LAUNDRY ARE SHOWN AT 12" OVERHANGS/FAVES ARE SHOWN AT 12"
  - 12) ALL LOCATIONS FOR W.I.C. BATH, KITCHEN, AND LAUNDRY ARE SHOWN AT 12" OVERHANGS/FAVES ARE SHOWN AT 12"
  - 13) ALL LOCATIONS FOR W.I.C. BATH, KITCHEN, AND LAUNDRY ARE SHOWN AT 12" OVERHANGS/FAVES ARE SHOWN AT 12"
  - 14) ALL LOCATIONS FOR W.I.C. BATH, KITCHEN, AND LAUNDRY ARE SHOWN AT 12" OVERHANGS/FAVES ARE SHOWN AT 12"
  - 15) ALL LOCATIONS FOR W.I.C. BATH, KITCHEN, AND LAUNDRY ARE SHOWN AT 12" OVERHANGS/FAVES ARE SHOWN AT 12"
  - 16) ALL LOCATIONS FOR W.I.C. BATH, KITCHEN, AND LAUNDRY ARE SHOWN AT 12" OVERHANGS/FAVES ARE SHOWN AT 12"
  - 17) ALL LOCATIONS FOR W.I.C. BATH, KITCHEN, AND LAUNDRY ARE SHOWN AT 12" OVERHANGS/FAVES ARE SHOWN AT 12"
  - 18) ALL LOCATIONS FOR W.I.C. BATH, KITCHEN, AND LAUNDRY ARE SHOWN AT 12" OVERHANGS/FAVES ARE SHOWN AT 12"
  - 19) ALL LOCATIONS FOR W.I.C. BATH, KITCHEN, AND LAUNDRY ARE SHOWN AT 12" OVERHANGS/FAVES ARE SHOWN AT 12"
  - 20) ALL LOCATIONS FOR W.I.C. BATH, KITCHEN, AND LAUNDRY ARE SHOWN AT 12" OVERHANGS/FAVES ARE SHOWN AT 12"

**5.02**  
 SECTION B-B  
 SCALE: 1/4" = 1'-0"  
 DATE: January 09, 2015  
 PROJECT NO: 01  
 REVISIONS: 11/11/15 REVISION 21  
 ISSUE DATES: 11/11/15  
 DRAWN BY: [Signature]  
 CHECKED BY: [Signature]

**Grantham Residence**  
  
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CONTACT:  
 CARL CLUMBLAND  
 5555 W. 10th Street  
 Springfield, MO 65704  
 MOBILE 815-428-4728  
 (417) 485-4728  
 www.vikingcustomhomes.com





States 4 BR in Anacostia

# Building Permit Application

Howard County Maryland  
Department of Inspections, Licenses and Permits  
3430 Court House Drive  
Permits: 410-313-2455  
www.howardcountymd.gov

Date Received: 6-8-15

Permit No.: B15002513

Building Address: 7374 Mulford Road  
 City: Clarksville State: MD Zip Code: 21029  
 Suite/Apt. #: \_\_\_\_\_ SDP/WP/BA #: 6P-15-080  
 Census Tract: \_\_\_\_\_ Subdivision: \_\_\_\_\_  
 Section: \_\_\_\_\_ Area: \_\_\_\_\_ Lot: \_\_\_\_\_  
 Tax Map: 35 Parcel: 318 Grid: 02  
 Zoning: R1-Der Map Coordinates: \_\_\_\_\_ Lot Size: 2.78ac  
 Existing Use: Vacant land  
 Proposed Use: SFD  
 Estimated Construction Cost: \$ 250,000  
 Description of Work: 4 Bedroom 3.5 Bath 2 Story Colonial Unfinished Basement  
 Occupant or Tenant: \_\_\_\_\_  
 Was tenant space previously occupied?  Yes  No  
 Contact Name: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_  
 Phone: \_\_\_\_\_ Fax: \_\_\_\_\_  
 Email: \_\_\_\_\_

Property Owner's Name: Scott Seaman Bramham  
 Address: 7374 Mulford Rd  
 City: Clarksville State: MD Zip Code: 21029  
 Phone: 410-977-2188 Fax: \_\_\_\_\_  
 Email: \_\_\_\_\_  
 Applicant's Name & Mailing Address, (If other than stated herein)  
 Applicant's Name: Vanya Deylappat Corp  
 Address: 515 WINDYBROOK DR  
 City: Clarksville State: MD Zip Code: 21784  
 Phone: 410-977-2188 Fax: \_\_\_\_\_  
 Email: vanya.d@windybrook.com  
 Contractor Company: Same as above  
 Contact Person: Cory Cumberland  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_  
 License No.: 1185  
 Phone: \_\_\_\_\_ Fax: \_\_\_\_\_  
 Email: \_\_\_\_\_  
 Engineer/Architect Company: SRA  
 Responsible Design Prof.: John Riviz  
 Address: N Oregon station  
 City: Wilmington State: \_\_\_\_\_ Zip Code: \_\_\_\_\_  
 Phone: 443-226-5745 Fax: \_\_\_\_\_  
 Email: \_\_\_\_\_

Commercial Building Characteristics	Residential Building Characteristics	
Height:	<input checked="" type="checkbox"/> SF Dwelling <input type="checkbox"/> SF Townhouse	
No. of stories:	Depth	Width
Gross area, sq. ft./floor:	1 <sup>st</sup> floor: <u>46</u>	<u>52</u>
Area of construction (sq. ft.):	2 <sup>nd</sup> floor: <u>40</u>	<u>52</u>
Use group:	Basement: <u>40</u>	<u>52</u>
	<input type="checkbox"/> Finished Basement	
	<input checked="" type="checkbox"/> Unfinished Basement	
	<input type="checkbox"/> Crawl Space	
<b>Construction type:</b>	<input type="checkbox"/> Slab on Grade	
<input type="checkbox"/> Reinforced Concrete	No. of Bedrooms: <u>4</u>	
<input type="checkbox"/> Structural Steel	<b>Multi-family Dwelling</b>	
<input type="checkbox"/> Masonry	No. of efficiency units:	
<input type="checkbox"/> Wood Frame	No. of 1 BR units:	
<input type="checkbox"/> State Certified Modular	No. of 2 BR units:	
	No. of 3 BR units:	
	Other Structure:	
	Dimensions:	
<input checked="" type="checkbox"/> Roadside Tree Project Permit	Footings:	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Roof:	
Roadside Tree Project Permit #	<input type="checkbox"/> State Certified Modular	
	<input type="checkbox"/> Manufactured Home	

Utilities	
<b>Water Supply</b>	
<input type="checkbox"/> Public	
<input checked="" type="checkbox"/> Private	
<b>Sewage Disposal</b>	
<input type="checkbox"/> Public	
<input checked="" type="checkbox"/> Private	
Electric: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Gas: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
<b>Heating System</b>	
<input checked="" type="checkbox"/> Electric <input type="checkbox"/> Oil	
<input type="checkbox"/> Natural Gas <input checked="" type="checkbox"/> Propane Gas	
<input type="checkbox"/> Other:	
<b>Sprinkler System:</b>	
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Grading Permit Number: <u>61500191</u>	
Building Shell Permit Number:	

THE UNDERSIGNED HEREBY CERTIFIES AND AGREES AS FOLLOWS: (1) THAT HE/SHE IS AUTHORIZED TO MAKE THIS APPLICATION; (2) THAT THE INFORMATION IS CORRECT; (3) THAT HE/SHE WILL COMPLY WITH ALL REGULATIONS OF HOWARD COUNTY WHICH ARE APPLICABLE THERETO; (4) THAT HE/SHE WILL PERFORM NO WORK ON THE ABOVE REFERENCED PROPERTY NOT SPECIFICALLY DESCRIBED IN THIS APPLICATION; (5) THAT HE/SHE GRANTS COUNTY OFFICIALS THE RIGHT TO ENTER ONTO THIS PROPERTY FOR THE PURPOSE OF INSPECTING THE WORK PERMITTED AND POSTING NOTICES.

Cory Cumberland  
 Applicant's Signature  
cory.cumberland@windybrook.com  
 Email Address  
President  
 Title/Company

Cory Cumberland  
 Print Name  
6-5-15  
 Date

Checks Payable to: DIRECTOR OF FINANCE OF HOWARD COUNTY  
 \*\*PLEASE WRITE NEATLY & LEGIBLY\*\*  
 -FOR OFFICE USE ONLY-

AGENCY	DATE	SIGNATURE OF APPROVAL
State Highways		
Building Officials		
PSZA (Zoning)		
PSZA (Engineering)		
Health	<u>7/2/15</u>	<u>Dana Bernad</u>

Is Sediment Control approval required for issuance?  Yes  No  
 CONTINGENCY CONSTRUCTION START

DPZ SETBACK INFORMATION
Front:
Rear:
Side:
Side St.:
All minimum setbacks met? <input type="checkbox"/> Yes <input type="checkbox"/> No
Is Entrance Permit Required? <input type="checkbox"/> Yes <input type="checkbox"/> No
Historic District? <input type="checkbox"/> Yes <input type="checkbox"/> No
Lot Coverage for New Town Zone:
SDP/Red-line approval date:

Filing Fee	\$	<u>150</u>
Permit Fee	\$	
Tech Fee	\$	
Excise Tax	\$	
PSFS	\$	
Guaranty Fund	\$	<u>50</u>
Add'l per Fee	\$	
Total Fees	\$	
Sub-Total Paid	\$	
Balance Due	\$	
Check	#	<u>11615</u>



Office of the Health Officer  
8930 Stanford Blvd., Columbia, MD 21045  
Main: 410-313-6300 | Fax: 410-313-6303  
TDD 410-313-2323 | Toll Free 1-866-313-6300  
[www.hchealth.org](http://www.hchealth.org)  
Facebook: [www.facebook.com/hocohealth](http://www.facebook.com/hocohealth)  
Twitter: HowardCoHealthDep

Maura J. Rossman, M.D., Health Officer

DATE: June 30, 2015

TO: Viking Development Corp.  
C/O Cary Cumberland  
Via-e-mail: [CARY@VIKINGCUSTOMHOMES.COM](mailto:CARY@VIKINGCUSTOMHOMES.COM)

RE: **Building Permit # B15002513**  
**7374 Guildford Road**  
**Clarksville, Maryland 21029**

Mr. Cumberland,

Further review is contingent upon submission of a revised building plan showing the following:

- As of January 1, 2013, all new construction is required to use the "Best Available Technology" (BAT) for septic installation. Before building permit approval, a BAT site plan must be submitted along with your building application and building plan.
- In addition to the BAT plan, we will need floor plans for the proposed house.
- An Operation and Maintenance Agreement for your BAT system will be required before use and occupancy.

#### **Building Plan**

- Septic System and all of its components must be shown on plan.
- The well statement must be shown on building plan.
- Building plan must be to scale. (scale not shown)
- A well box (1500sq.ft.) or an initial drilled well with 2 alternate wells must be shown on plan.

Your building permit will be placed "on hold" until all Howard County Health Department requirements are met. If you have any questions or correspondence, I can be reached at the above address or by telephone at (410) 313-2775.

Respectfully,  
  
Dana Bernard, REHS/RS  
Environmental Specialist II  
Bureau of Environmental Health  
Well and Septic Program  
Phone (410) 313-2775  
E-mail: [DBernard@howardcountymd.gov](mailto:DBernard@howardcountymd.gov)

cc: Well & Septic program file  
Mr. and Mrs. Grantham  
7370 Guildford Road, Clarksville, Maryland 21029



**Existing Conditions**  
Simplified Forest Stand Delineation  
prepared by John Canoles, Eco-Science Professionals, Inc. on March 13, 2015

The Grantham property is located at 7374 Guilford Road in the Clarksville section of Howard County, Maryland. The property is 2.78 acres in size and is currently vacant. The lot is shown as Lot 2 of parcel 318 on County tax map 35.

The rectangular lot is bounded by existing residential development and is connected to Guilford Road by a long pipestem that extends from the southeast corner of the property approximately 800 feet east to the road. A wide County road right-of-way separates the northern boundary of the property from the actual road surface of Guilford Road.

The site is gently to moderately sloping with a high point being located in the northwest corner of the site. An incised perennial stream channel is present within a stream valley that extends along the southern edge of the site. The stream lines were field flagged with flag line A 1-19. The stream system onsite is a second order tributary to the Middle Patuxent River (Sub-basin 02-13-11). This portion of the watershed is classified as Use IV-P waters, as such, perennial streams occurring on residential properties require a 100 foot buffer.

No adjacent wetland development is present onsite. Some offsite wetland development was noted but these areas will not impact the subject property.

The vegetative cover on the site is mixed. The majority of the site is forested but some areas are disturbed and are unvegetated or are dominated by grasses and other herbaceous species. Multiflora rose and raspberry are also common in these disturbed areas. The eastern end of the pipestem is maintained as lawn by the adjoining property owners.

The forest community is a maturing successional community that is dominated by tulip poplar, red maple and black cherry. The dominant canopy trees, primarily tulip poplar, are generally 16-20 inch dbh. The understory trees, maple and cherry, are generally 6-12 inch dbh. Scattered white pines are present in the property, notably along the western property boundary. The pines are typically 10-16 inches dbh. No specimen trees were observed outside the stream buffer. One specimen poplar was noted along the streambank, this tree was not specifically noted due to its protected position within the buffer.

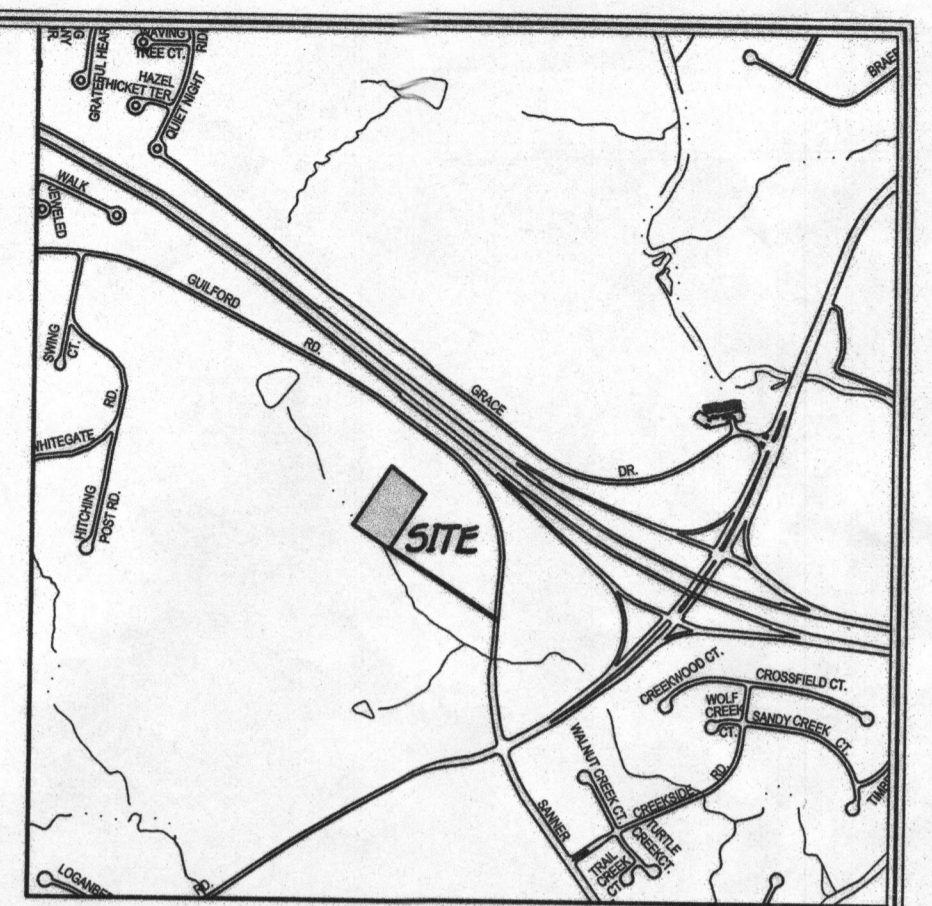
The shrub layer of the stand is mixed. Spicebush is common throughout but is being overtaken by multiflora rose as the most common species. Wineberry is notable along open edges. Scattered American holly and red cedar are also present in the stand. Vine cover within the stand is high with Japanese honeysuckle and Oriental bittersweet being very common in the ground layer and extending into the canopy.

Disturbance on the stand appears to be the result of use by neighbors and some firewood cutting. Old access roads were observed on the property. These roads appear to have been used to access the adjacent property and extend from their existing paved driveway across the subject property and out to Guilford Road across the wide right of way. A portion of this old access road has been stabilized with stone. Deer stands in the trees on the adjacent properties.

The forest is in fair condition due to the prevalence of invasive species, small size and fragmented canopy. The stand is subject to a large edge effect due to the long forest edge and would not provide forest interior habitat. The forest does provide habitat for non-interior species and provides water quality function based on its position within the stream buffer.

The forest within the buffer is a high retention priority area. The balance of the forest would be a low retention priority, on the basis of its small size and isolated position on the landscape.

The right of way north of the subject property is primarily forested with a similar community as is present on site. The access road from the subject property across the right of way to Guilford Road has been upgraded with stone surface. It appears that limited leveling of the old access road was performed prior to application of the stone. Tree clearing in this area appears to have been minimal. A drainage ditch is present within the right-of-way. This ditch is highly eroded and flows through the bottom of a broad valley between the site and the existing Guilford Road paving. Surface water flows and stormwater discharges feed the channel. It is possible that the down cutting has or will reach the groundwater table creating an intermittent flow within the channel. At the time our investigation the channel was being fed with snow melt but the channel conditions did not suggest a regular base flow is present. The existing access road meanders around the top of the drainage channel. The upper limits of the eroded channel were field located with flags DC 1-5.

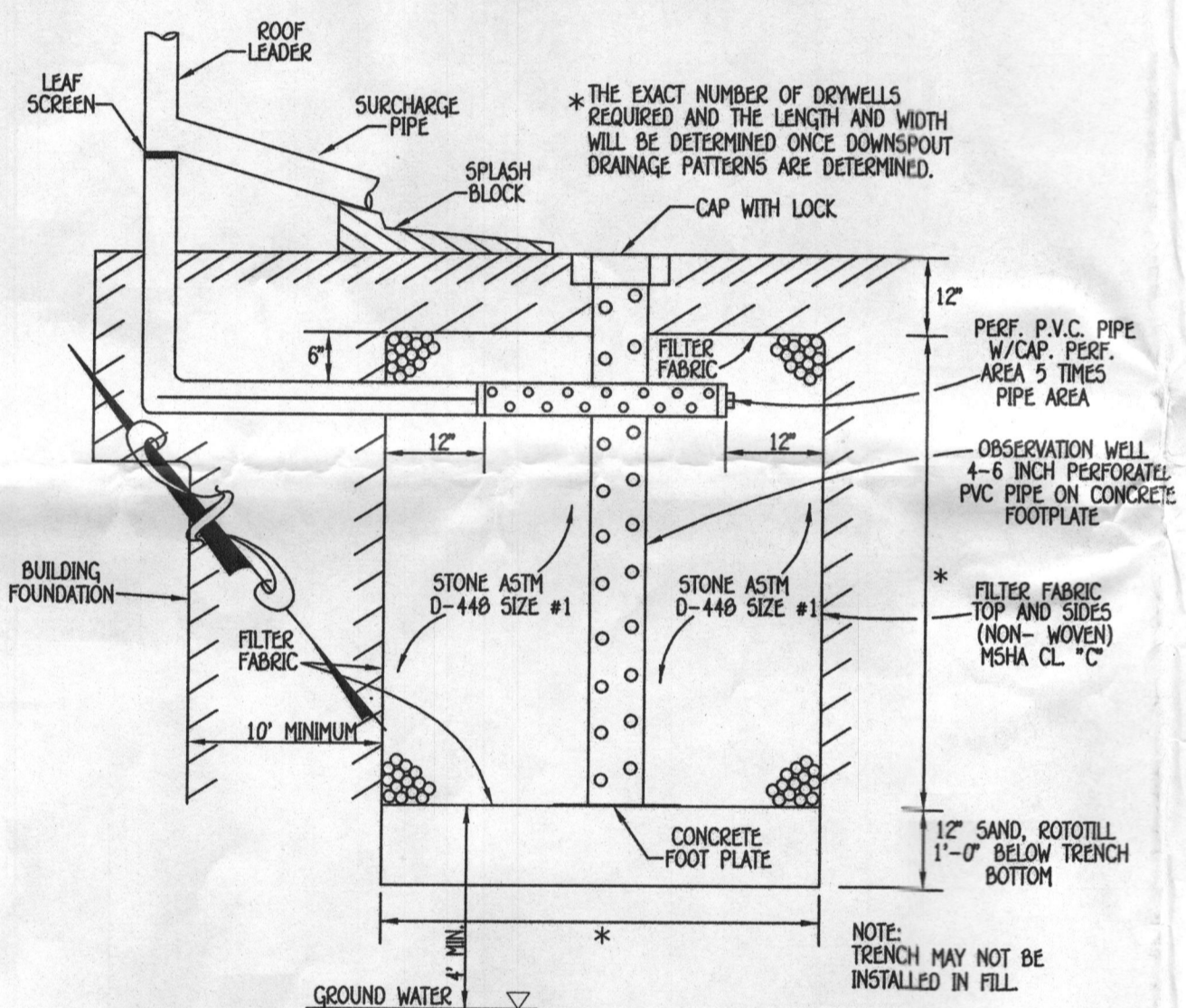


**VICINITY MAP**  
SCALE: 1" = 1200'

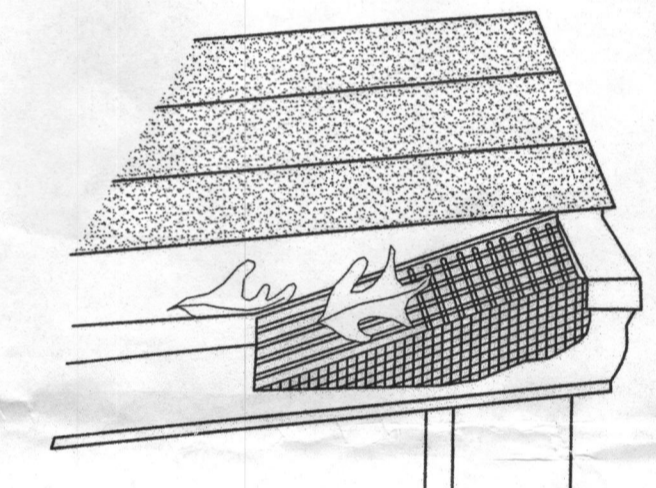
- GENERAL NOTES**
- SUBJECT PROPERTY ZONED: RC-DEO
  - TOTAL AREA OF PROPERTY: 2.78 AC
  - LIMIT OF DISTURBANCE: 29,520 SQ.FT. OR 0.66 ACRES+
  - SEPTIC EASEMENT SUBJECT TO HOWARD COUNTY HEALTH DEPARTMENT REVIEW.
  - LENGTH OF TRENCH TO BE DETERMINED AT TIME OF SEPTIC PERMIT ISSUANCE.
  - CONTRACTOR/BUILDER TO VERIFY ELEVATION IN THE FIELD BEFORE BEGINNING ANY CONSTRUCTION.
  - BOUNDARY OF LOT BASED ON FIELD RUN SURVEY BY FISHER, COLLINS & CARTER, INC. DATED APRIL 2015.
  - TOPOGRAPHY IS BASED ON FIELD RUN TOPOGRAPHIC SURVEY CONDUCTED BY FISHER, COLLINS & CARTER, INC. IN APRIL 2015 AND SUPPLEMENTED WITH HOWARD COUNTY 200 SCALE GIS TOPOGRAPHY.
  - STREAM, STREAM BUFFER, STEEP SLOPES, AND FLOODPLAIN EXIST ON THIS LOT.

**Forest Conservation Obligations**

The proposed development will require less than 20,000 sq. ft. of forest clearing will be exempt from the FCA requirements under section 16202 B(2) 1. This exemption does require that a Declaration of Intent is filed which will restrict further forest clearing on the site for a five year period.



**DRY WELL DETAIL (M-5)**  
NOT TO SCALE



**GUTTER DRAIN FILTER DETAIL**  
NOT TO SCALE

**STORMWATER MANAGEMENT NOTES**

- STORMWATER MANAGEMENT IS PROVIDED IN ACCORDANCE WITH CHAPTER 5, "ENVIRONMENTAL SITE DESIGN" OF THE 2007 MARYLAND STORMWATER MANAGEMENT DESIGN MANUAL, EFFECTIVE MAY 4, 2010.
- MAXIMUM CONTRIBUTING ROOF TOP AREA TO EACH DOWNSPOUT SHALL BE 1,000 SQ. FT. OR LESS.
- DRYWELLS SHALL BE PROVIDED AT LOCATIONS WHERE THE LENGTH OF DISCONNECTION IS LESS THAN 75' AT 5% SLOPE. THE SIZE AND CONSTRUCTION OF THE DRYWELL SHALL BE IN ACCORDANCE WITH THE DETAIL SHOWN ON THIS SHEET.
- FINAL GRADING IS SHOWN ON THIS SITE DEVELOPMENT PLAN.

**DRY WELL CHART**

DRYWELL NO.	AREA OF ROOF PER DOWN SPOUT	VOLUME REQUIRED	VOLUME PROVIDED	AREA OF TREATMENT	L	D	W
GAR (RT)	349 SQ. FT.	34 C.F.	120 C.F.	100%*	8'	8'	5'
REAR (RT)	822 SQ. FT.	79 C.F.	181 C.F.	100%*	9.5'	9.5'	5'

\* AREA OF TREATMENT EXCEEDS THAT REQUIRED.

**LEGEND**

SYMBOL	DESCRIPTION
---	EXISTING CONTOUR 2' INTERVAL
- - -	PROPOSED CONTOUR 2' INTERVAL
•	SPOT ELEVATION
---	100 YEAR FLOODPLAIN
---	EXISTING STREAM
-SF-SF-	SILT FENCE
WO	PROPOSED WALKOUT
LOD	LIMITS OF DISTURBANCE
---	25% SLOPES OR GREATER

**SOILS LEGEND**

SOIL	NAME	CLASS	K FACTOR
GgB	Glenelig loam, 3 to 8 percent slopes	B	0.20
GnB	Glenville-Balle silt loams, 0 to 8 percent slopes	C	0.37
MaC	Manor loam, 8 to 15 percent slopes	B	0.28

**OWNER**  
SEAN & JEANNINE GRANTHAM  
7370 GUILFORD ROAD  
CLARKSVILLE, MARYLAND 21029

**BUILDER**  
VIKING CUSTOM HOMES  
12800 FREDERICK ROAD  
WEST FRIENDSHIP, MARYLAND 21794  
410-489-6728

**GP-15-080**  
GRADING PLAN  
7374 GUILFORD ROAD

ZONED RC-DEO  
TAX MAP No. 35 GRID No. 22 PARCEL No. 318  
FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
SCALE: 1"=40'  
DATE: MAY, 2015  
SHEET 1 OF 2

**BUILDER/DEVELOPER'S CERTIFICATE**

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, FOR SEDIMENT AND EROSION CONTROL, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."

Signature: *John P. White* DATE: 5/14/15  
Signature: *Cam R. Cantelmo* DATE: 5-19-2015

**ENGINEER'S CERTIFICATE**

"I/WE CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

Signature: *Myron J. Tate* DATE: 5/13/15



**FISHER, COLLINS & CARTER, INC.**  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE  
ELLSWORTH CITY, MARYLAND 21042  
(410) 461-2895

NOTE: STANDARD SILT FENCING TO BE UPGRADED TO "SUPER" SILT FENCE AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR.

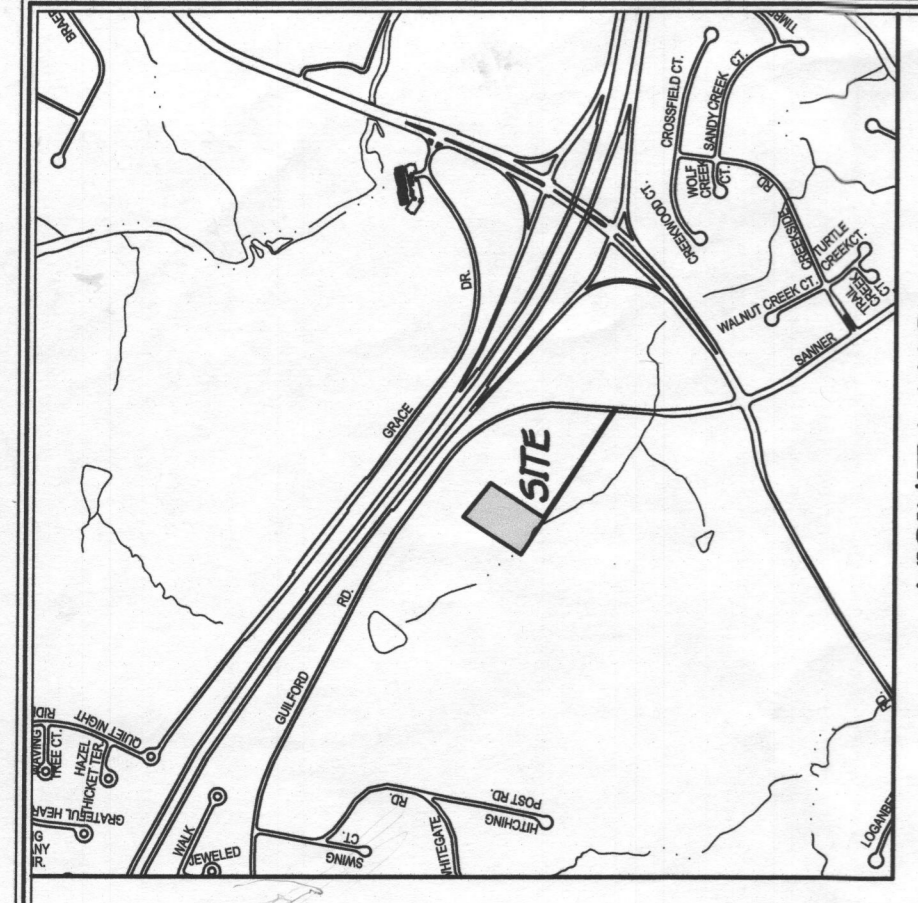
NO.	REVISION	DATE

THIS DEVELOPMENT IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

Signature: *John P. White* DATE: 5/14/15  
Signature: *Cam R. Cantelmo* DATE: 5-19-2015

B15002513





**VICINITY MAP**  
SCALE: 1" = 1200'

- GENERAL NOTES**
- SUBJECT PROPERTY ZONED: RC-DEO (RESIDENTIAL COMMERCIAL DEVELOPMENT) PER 1999 ZONING ORDINANCE, ARTICLE 10, SECTION 10.01.
  - SEPTIC EASEMENT SUBJECT TO HOWARD COUNTY HEALTH DEPARTMENT REVIEW.
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**LEGEND**

SYMBOL	DESCRIPTION
(Symbol)	EXISTING CONTIGUOUS 2' INTERVAL
(Symbol)	PROPOSED CONTIGUOUS 2' INTERVAL
(Symbol)	SPOT ELEVATION
(Symbol)	100 YEAR FLOODPLAIN
(Symbol)	EXISTING STREAM
(Symbol)	SEPTIC TRENCH
(Symbol)	PROPOSED WALKOUT
(Symbol)	EX. TREES
(Symbol)	25% SLOPES OR GREATER

Approved Septic System Plan  
 Howard County Health Department  
*Donna Townsend* 7-22-15  
 Signature Date  
 B15022513

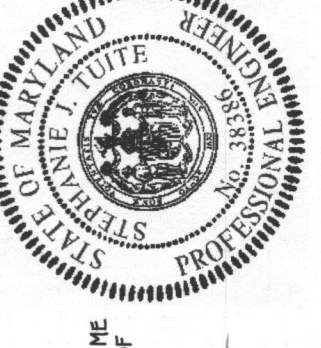
**NOTE**  
 THE EXISTING WELL SHOWN ON THIS PLAN, TAG NO. HO #81-0692 HAS BEEN FIELD LOCATED BY FISHER, COLLINS & CARTER, INC., PROFESSIONAL LAND SURVEYORS AND IS ACCURATELY SHOWN.

**SOILS LEGEND**

SOIL	NAME	CLASS	K FACTOR
GcB	Glennville loam, 3 to 8 percent slopes	B	0.20
GcB	Glennville-Belle silt loams, 0 to 8 percent slopes	C	0.37
MBC	Minor loam, 8 to 15 percent slopes	B	0.28

**OWNER**  
 SEAN & LEANNE GRANHAM  
 12800 FREDERICK ROAD  
 CLARKSVILLE, MARYLAND 21029

**BUILDER**  
 MICHAEL J. OWENS  
 WEST FRIENDSHIP, MARYLAND 21794  
 410-489-6728



**PROFESSIONAL CERTIFICATION**  
 I HEREBY CERTIFY THAT THE SEPTIC SYSTEM SHOWN ON THIS PLAN WAS DESIGNED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE PROVISIONS OF THE STATE OF MARYLAND, LICENSE NO. 38386, EXPIRATION DATE: 01/12/2016.

*Donna Townsend* 7/15/15  
 Signature of Professional Engineer DATE



**PLAN VIEW**  
SCALE: 1" = 30'

- GENERAL NOTES**
- SINGULAR AERATOR, AS TESTED AND ACCEPTED BY NSF, OPERATING 60 MINUTES ON / 60 MINUTES OFF.
  - FALL THROUGH SINGULAR PLANT FROM INLET INVERT TO OUTLET INVERT IS FOUR INCHES. INLET INVERT IS TWELVE INCHES BELOW TANK TOP.
  - ON DEEPER INSTALLATIONS, PRECAST REBERS MUST BE USED TO EXTEND TO THE BOTTOM OF THE TRENCH AND BIO-KINETIC SYSTEM MOUNTING CASTING TO GRADE.
  - TANK REINFORCED PER ACI STD. 318-05.
  - REMOVABLE COVERS ON REBERS SHOULD BE PROVIDED WITH FIVE UNAUTHORIZED ACCESS.
  - CONTACT THE LOCAL LICENSED ELECTRICAL REQUIREMENTS.

**PROJECT ENGINEER'S APPROVAL**  
 I (WE) HEREBY CERTIFY THAT THIS DRAWING HAS BEEN CHECKED AND IS ACCURATE AND COMPLETELY CONFORMS WITH THE CONTRACT DOCUMENTS.

DATE: \_\_\_\_\_

**CONTRACTOR'S CERTIFICATION**  
 I (WE) HEREBY CERTIFY THAT THIS DRAWING HAS BEEN CHECKED AND IS APPROVED FOR USE IN CONFORMITY WITH THE CONTRACT DOCUMENTS.

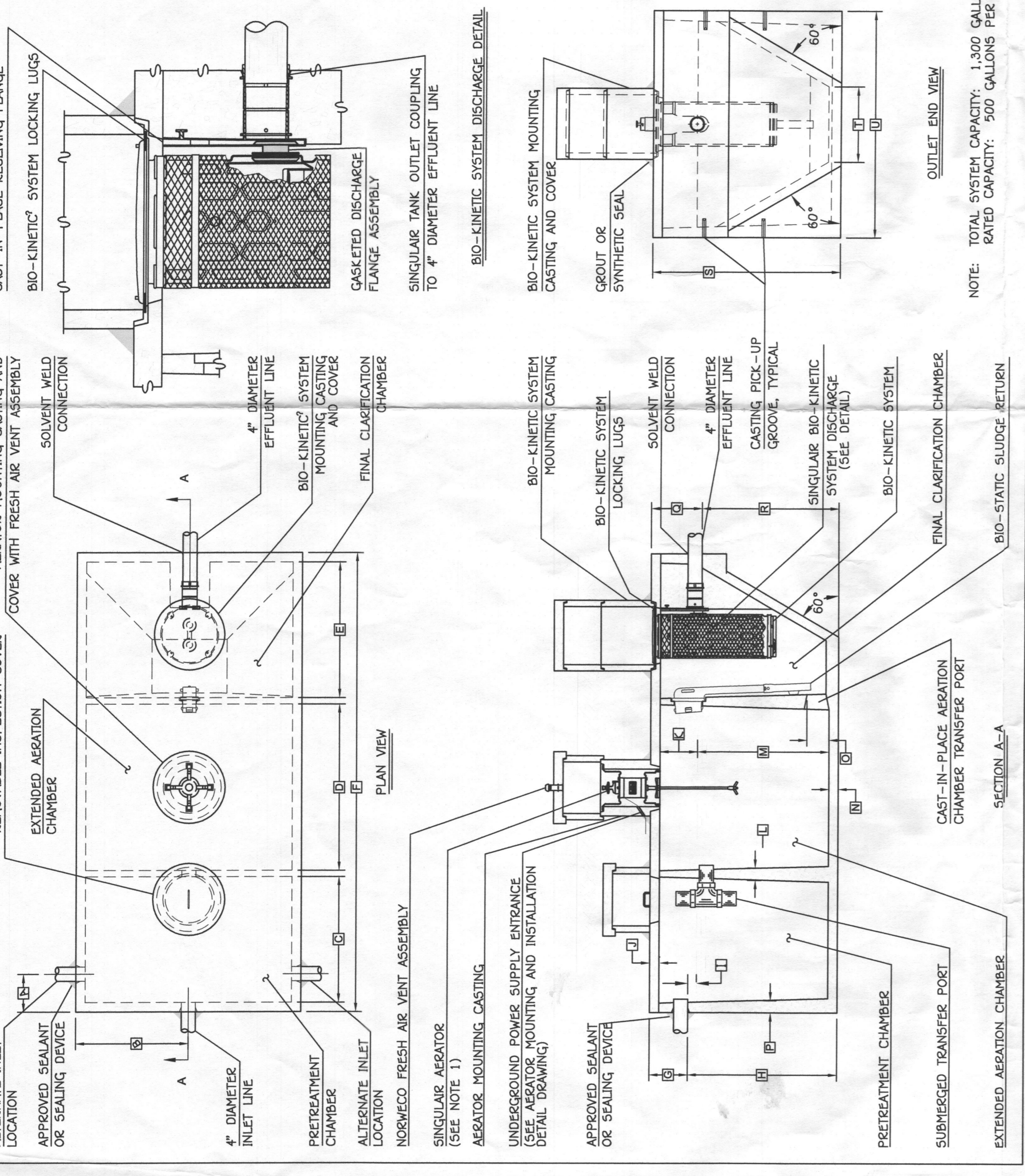
DATE: \_\_\_\_\_

NAME: \_\_\_\_\_

**CRITICAL DIMENSIONS**

NO.	DESCRIPTION	SIZE
1	A	1'-0"
2	B	0'-3"
3	C	0'-6"
4	D	0'-3"
5	E	1'-4"
6	F	3'-8"
7	G	3'-8"
8	H	2'-0"
9	I	8'-0"
10	J	1'-0"
11	K	1'-0"
12	L	1'-0"
13	M	3'-6"
14	N	3'-6"
15	O	3'-6"
16	P	3'-6"
17	Q	3'-6"
18	R	3'-6"
19	S	3'-6"
20	T	3'-6"
21	U	3'-6"
22	V	3'-6"
23	W	3'-6"
24	X	3'-6"
25	Y	3'-6"
26	Z	3'-6"

**norweco**  
 LOW-PRESSURE SINGULAR PLANT  
 BIO-KINETIC SYSTEM  
 MODEL: INT10-500-0P0  
 1-800-368-7272  
 WWW.NORWECO.COM  
 PC-5-2008



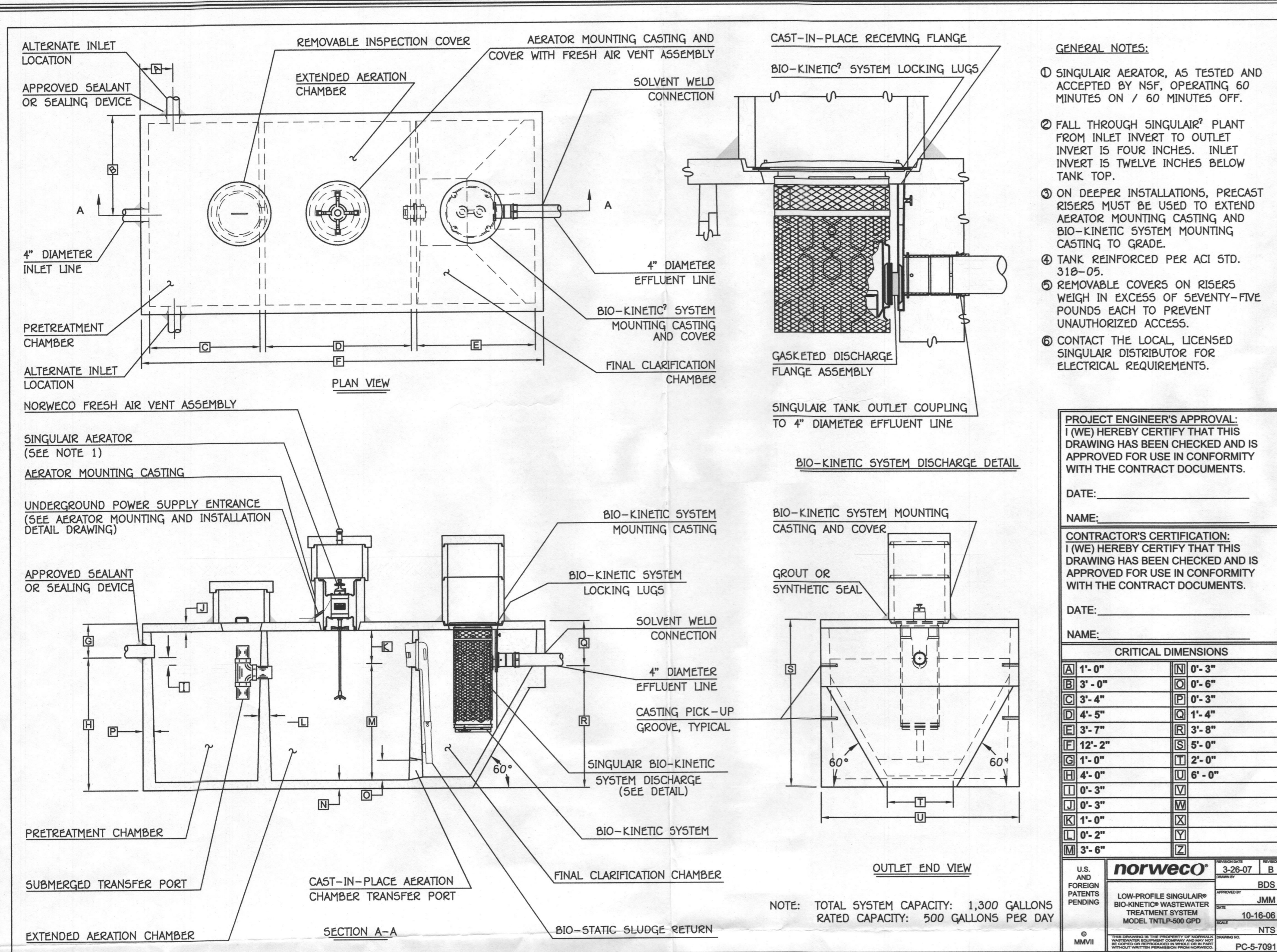
**SEPTIC PROFILE**  
 HORIZONTAL SCALE: 1" = 30'  
 VERTICAL SCALE: 1" = 30'

- BAT NOTES**
- ANY CHANGE TO THE LOCATIONS OR DEPTHS TO ANY COMPONENTS MUST BE APPROVED BY THE ENGINEER AND THE HOWARD COUNTY HEALTH DEPARTMENT PRIOR TO INSTALLATION. A REBERD SHALL BE INSTALLED OVER THE BAT TANK.
  - THE MANHOLE COVER OVER THE BAT SHALL BE 3 FEET.
  - THE BAT SHALL BE OPERATED BY THE OWNER FOR THE LIFE OF THE SYSTEM.
  - THE BAT SHALL BE OPERATED BY THE OWNER FOR THE LIFE OF THE SYSTEM.
  - WITHIN ONE MONTH OF INSTALLATION, A PERSON INSTALLING THE BAT SYSTEM SHALL REPORT TO THE HOWARD COUNTY HEALTH DEPARTMENT THE LOCATION AND DEPTH OF THE BAT TANK.
  - ANY ELECTRICAL WORK FOR THE BAT INSTALLATION MUST BE PERFORMED BY A LICENSED ELECTRICIAN.
  - AN AGREEMENT AND EASEMENT HAS BEEN COMPLETED AND SIGNED BY ALL APPLICABLE PARTIES, AND RECORDED IN THE LAND RECORDS OF HOWARD COUNTY, MARYLAND.
  - MANUFACTURER'S INSTRUCTIONS SHALL BE FOLLOWED FOR THE INSTALLATION.
  - SURFACE RUNOFF SHALL BE DIRECTED AROUND THE BAT TANK.

- SEPTIC SYSTEM ELEVATIONS**
- FF = 380.92
  - INV. INTO C/O = 372.73
  - INV. OUT OF HOUSE = 374.5
  - BAGGENT SEWAGE IS TO BE PUMPED
  - EX. GROUND AT C/O = 376.1
  - INV. INTO C/O = 371.41
  - INV. OUT OF C/O = 371.31
  - TOP GROUND AT BAT TANK = 374.5
  - COVER OVER BAT TANK = 3 FT
  - INVERT INTO BAT TANK = 370.5
  - INVERT INTO DISTRIBUTION BOX = 370.17
  - EX. GROUND AT DISTRIBUTION BOX = 373.3
  - INVERT INTO DISTRIBUTION BOX = 370.05
  - INVERT OUT OF DISTRIBUTION BOX = 369.55
- SEPTIC SYSTEM DESIGN**
- 2-BEDROOM HOUSE
  - LOADING RATE = 750 GPD
  - APPLICATION RATE = 0.8
  - TRENCH WIDTH = 3 FEET
  - TRENCH DEPTH = 4 FEET
  - EFFECTIVE DEPTH (D) = 4 FEET
  - COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (M+2)/(M+1+2D) = (3+2)/(3+1+2(4)) = 0.417
  - TRENCH LENGTH = 937.5 SF x 0.417 / 3 = 130.3 FEET (USE 132 FEET)
  - TRENCH SPACING = 20+4 = (24) + 31 = 11'

**SEPTIC PROFILE**  
 HORIZONTAL SCALE: 1" = 30'  
 VERTICAL SCALE: 1" = 30'

**FISHER, COLLINS & CARTER, INC.**  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 1400 W. W. 205  
 CLARKSVILLE, MARYLAND 21029



- GENERAL NOTES:**
1. SINGULAR AERATOR, AS TESTED AND ACCEPTED BY NSF, OPERATING 60 MINUTES ON / 60 MINUTES OFF.
  2. FALL THROUGH SINGULAR PLANT FROM INLET INVERT TO OUTLET INVERT IS FOUR INCHES. INLET INVERT IS TWELVE INCHES BELOW TANK TOP.
  3. ON DEEPER INSTALLATIONS, PRECAST RISERS MUST BE USED TO EXTEND AERATOR MOUNTING CASTING AND BIO-KINETIC SYSTEM MOUNTING CASTING TO GRADE.
  4. TANK REINFORCED PER ACI STD. 318-05.
  5. REMOVABLE COVERS ON RISERS WEIGH IN EXCESS OF SEVENTY-FIVE POUNDS EACH TO PREVENT UNAUTHORIZED ACCESS.
  6. CONTACT THE LOCAL LICENSED SINGULAR DISTRIBUTOR FOR ELECTRICAL REQUIREMENTS.

**PROJECT ENGINEER'S APPROVAL:**  
I (WE) HEREBY CERTIFY THAT THIS DRAWING HAS BEEN CHECKED AND IS APPROVED FOR USE IN CONFORMITY WITH THE CONTRACT DOCUMENTS.

DATE: \_\_\_\_\_  
NAME: \_\_\_\_\_

**CONTRACTOR'S CERTIFICATION:**  
I (WE) HEREBY CERTIFY THAT THIS DRAWING HAS BEEN CHECKED AND IS APPROVED FOR USE IN CONFORMITY WITH THE CONTRACT DOCUMENTS.

DATE: \_\_\_\_\_  
NAME: \_\_\_\_\_

CRITICAL DIMENSIONS			
A	1'-0"	N	0'-3"
B	3'-0"	O	0'-6"
C	3'-4"	P	0'-3"
D	4'-5"	Q	1'-4"
E	3'-7"	R	3'-8"
F	12'-2"	S	8'-0"
G	1'-0"	T	2'-0"
H	4'-0"	U	8'-0"
I	0'-3"	V	0'-0"
J	0'-3"	W	0'-0"
K	1'-0"	X	0'-0"
L	0'-2"	Y	0'-0"
M	3'-6"	Z	0'-0"

**norweco** 3-29-07 B  
LOW-PROFILE SINGULAR BIO-KINETIC WASTEWATER TREATMENT SYSTEM MODEL TNYL-500 GPD DATE 10-16-06 NTS  
U.S. AND FOREIGN PATENTS PENDING © MMVII PC-S-7091

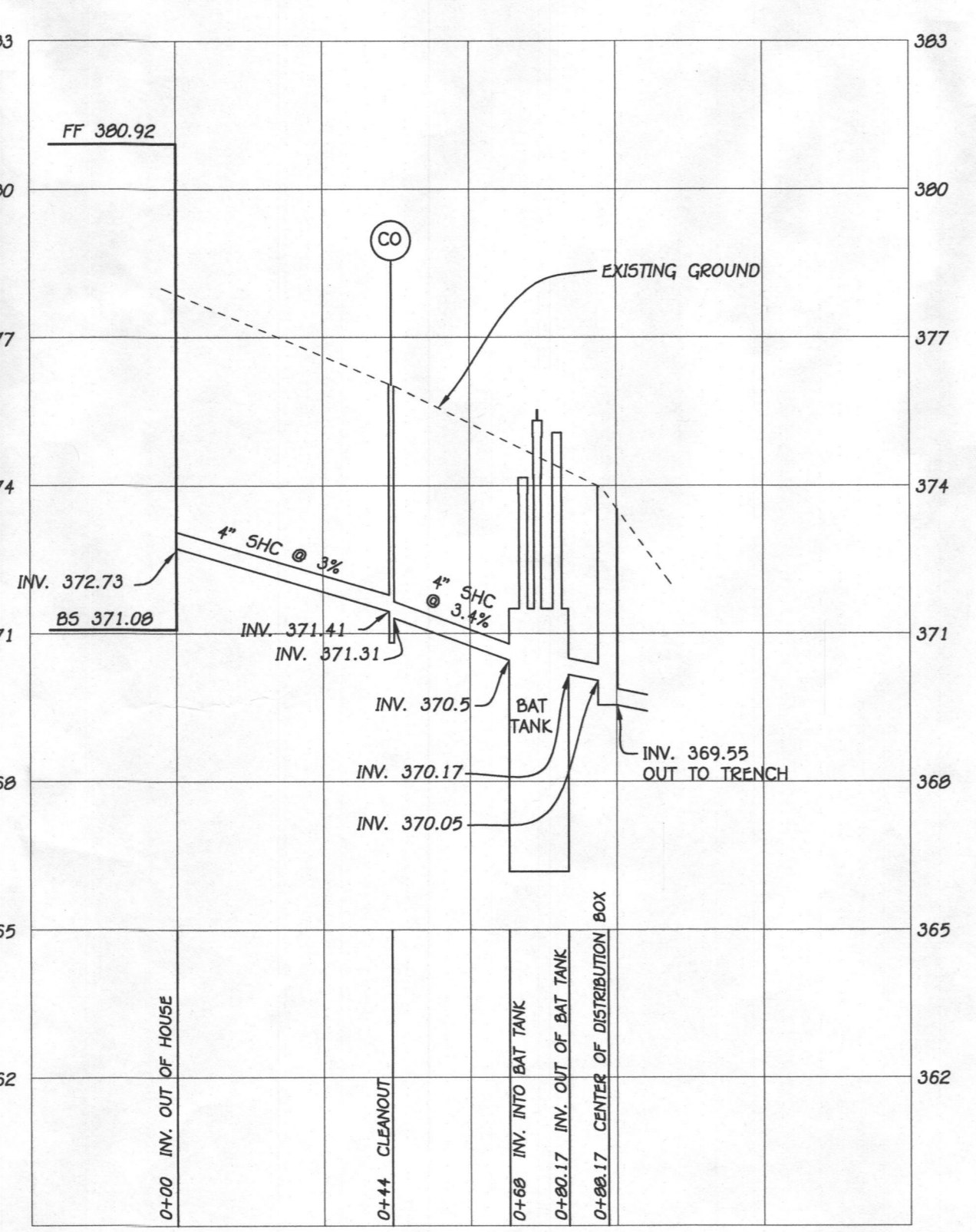
- BAT NOTES**
1. ANY CHANGE TO THE LOCATIONS OR DEPTHS TO ANY COMPONENTS MUST BE APPROVED BY THE ENGINEER AND THE HOWARD COUNTY HEALTH DEPARTMENT PRIOR TO INSTALLATION. A REVISED SITE PLAN MAY BE REQUIRED.
  2. THE MAXIMUM COVER OVER THE BAT SHALL BE 3 FEET.
  3. THE BAT SYSTEM SHALL BE MAINTAINED AND OPERATED FOR THE LIFE OF THE SYSTEM.
  4. THE BAT SHALL BE OPERATED BY AND MAINTAINED BY A CERTIFIED SERVICE PROVIDER.
  5. WITHIN ONE MONTH OF INSTALLATION, A PERSON INSTALLING THE BAT SYSTEM SHALL REPORT TO THE MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) IN A MANNER ACCEPTABLE TO MDE, THE ADDRESS AND DATE OF COMPLETION OF THE BAT INSTALLATION AND THE TYPE OF BAT INSTALLED.
  6. ANY ELECTRICAL WORK FOR THE BAT INSTALLATION MUST BE PERFORMED BY A LICENSED ELECTRICIAN.
  7. AN AGREEMENT AND EASEMENT HAS BEEN COMPLETED AND SIGNED BY ALL APPLICABLE PARTIES, AND RECORDED IN THE LAND RECORDS OF HOWARD COUNTY, LIBER FOLD .
  8. THE HEALTH DEPARTMENT REQUIRES DOCUMENTATION FOR THE START-UP CERTIFICATION FROM THE MANUFACTURER PRIOR TO FINAL APPROVAL OF THE INSTALLATION.
  9. SURFACE RUNOFF SHALL BE DIRECTED AROUND THE BAT TANK.

**SEPTIC SYSTEM ELEVATIONS**

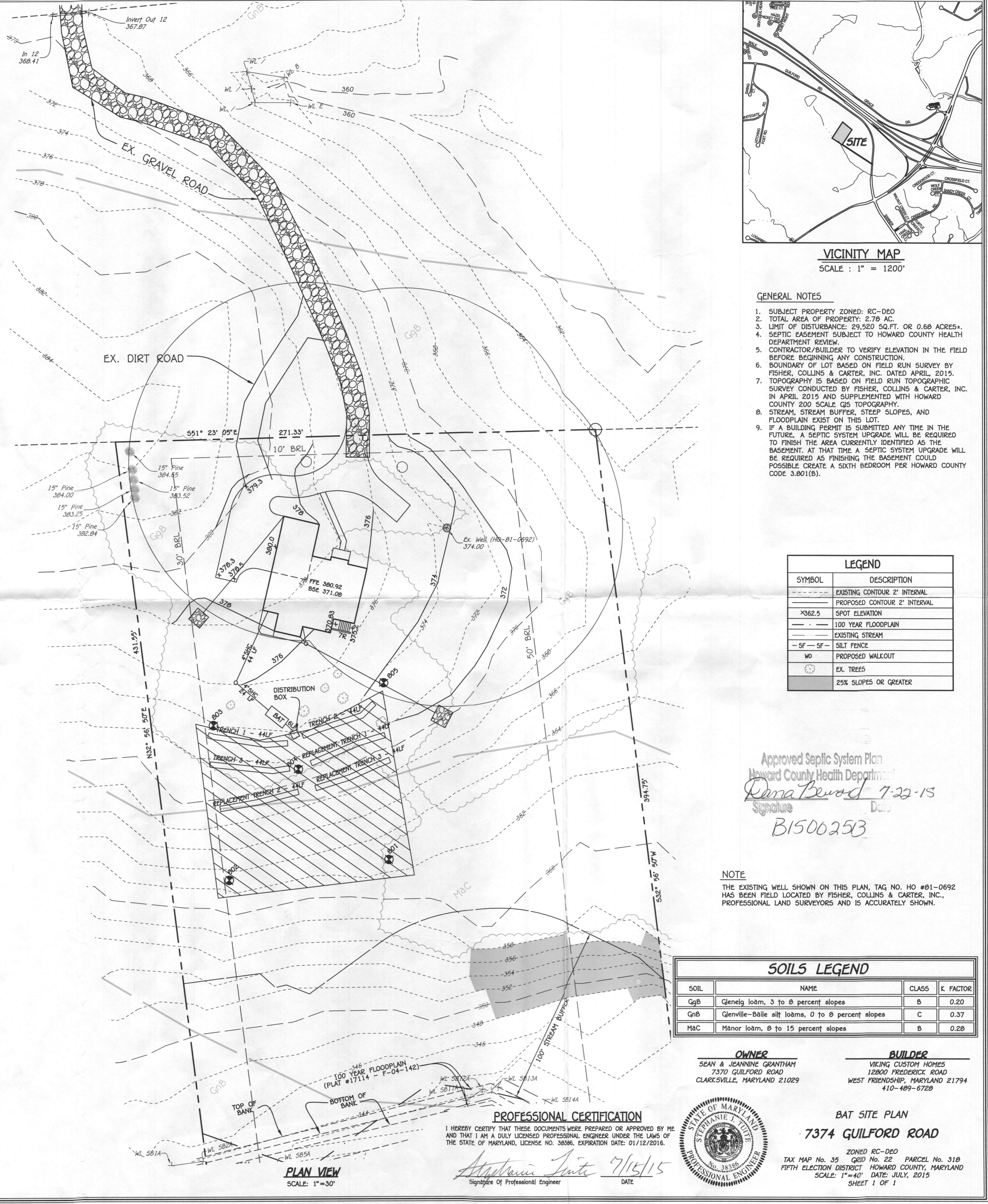
FFE = 360.92  
BSE = 371.08  
INV. OUT OF HOUSE = 372.73  
\* BASEMENT SEWAGE IS TO BE PUMPED

EX GROUND AT C/O = 376.1  
INV. INTO C/O = 371.41  
INV. OUT OF C/O = 371.31  
EX GROUND AT BAT TANK = 374.5  
TOP OF BAT TANK = 371.5  
COVER OVER BAT TANK = 3 FT  
INVERT INTO BAT TANK = 370.5  
INVERT OUT OF BAT TANK = 370.17  
EX. GROUND AT DISTRIBUTION BOX = 373.3  
INVERT INTO DISTRIBUTION BOX = 370.05  
INVERT OUT OF DISTRIBUTION BOX = 369.55

**SEPTIC SYSTEM DESIGN**  
5 BEDROOM HOUSE  
LOADING RATE = 750 GPD  
APPLICATION RATE = 0.8  
EFFECTIVE SIDEWALL BEGINS AT 4 FEET  
TRENCH DEPTH = 8 FEET  
TRENCH WIDTH (W) = 3 FEET  
EFFECTIVE DEPTH (D) = 4 FEET  
SF OF DRAINFIELD = 750 GPD / 0.8 = 937.5 SF  
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D) = (3+2)/(3+1+(2\*4)) = 0.417  
TRENCH LENGTH = 937.5 SF x 0.417 / 3 = 130.3 FEET (USE 132 FEET)  
TRENCH SPACING = 2D+W = ((2\*4) + 3) = 11'



**SEPTIC PROFILE**  
HORIZONTAL SCALE: 1" = 30'  
VERTICAL SCALE: 1" = 3'



**VICINITY MAP**  
SCALE: 1" = 1200'

- GENERAL NOTES**
1. SUBJECT PROPERTY ZONED: RC-DEO
  2. TOTAL AREA OF PROPERTY: 2.78 AC.
  3. LIMIT OF DISTURBANCE: 29,520 SQ.FT. OR 0.68 ACRES.
  4. SEPTIC EASEMENT SUBJECT TO HOWARD COUNTY HEALTH DEPARTMENT REVIEW.
  5. CONTRACTOR/BUILDER TO VERIFY ELEVATION IN THE FIELD BEFORE BEGINNING ANY CONSTRUCTION.
  6. BOUNDARY OF LOT BASED ON FIELD RUN SURVEY BY FISHER, COLLINS & CARTER, INC. DATED APRIL, 2015.
  7. TOPOGRAPHY IS BASED ON FIELD RUN TOPOGRAPHIC SURVEY CONDUCTED BY FISHER, COLLINS & CARTER, INC. IN APRIL 2015 AND SUPPLEMENTED WITH HOWARD COUNTY 200 SCALE GIS TOPOGRAPHY.
  8. STREAM, STREAM BUFFER, STEEP SLOPES, AND FLOODPLAIN EXIST ON THIS LOT.
  9. IF A BUILDING PERMIT IS SUBMITTED ANY TIME IN THE FUTURE, A SEPTIC SYSTEM UPGRADE WILL BE REQUIRED TO FINISH THE AREA CURRENTLY IDENTIFIED AS THE BASEMENT. AT THAT TIME A SEPTIC SYSTEM UPGRADE WILL BE REQUIRED AS FINISHING THE BASEMENT COULD POSSIBLE CREATE A SIXTH BEDROOM PER HOWARD COUNTY CODE 3.801(B).

**LEGEND**

SYMBOL	DESCRIPTION
---	EXISTING CONTOUR 2' INTERVAL
---	PROPOSED CONTOUR 2' INTERVAL
•	SPOT ELEVATION
---	100 YEAR FLOODPLAIN
---	EXISTING STREAM
---	SILT FENCE
---	PROPOSED WALKOUT
•	EX. TREES
---	25% SLOPES OR GREATER

Approved Septic System Plan  
Howard County Health Department  
*Dana Beard* 7-22-15  
Signature Date  
B1500253

**NOTE**  
THE EXISTING WELL SHOWN ON THIS PLAN, TAG NO. HO #81-0692 HAS BEEN FIELD LOCATED BY FISHER, COLLINS & CARTER, INC., PROFESSIONAL LAND SURVEYORS AND IS ACCURATELY SHOWN.

**SOILS LEGEND**

SOIL	NAME	CLASS	K FACTOR
GgB	Glennel loam, 3 to 8 percent slopes	B	0.20
GnB	Glennville-Balle silt loams, 0 to 8 percent slopes	C	0.37
MaC	Manor loam, 8 to 15 percent slopes	B	0.28

**OWNER**  
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**BUILDER**  
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12800 FREDERICK ROAD  
WEST FRIENDSHIP, MARYLAND 21794  
410-489-6728

**BAT SITE PLAN**  
7374 GUILFORD ROAD

ZONED RC-DEO  
GRID No. 22  
TAX MAP No. 35 PARCEL No. 318  
FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
SCALE: 1" = 40' DATE: JULY, 2015  
SHEET 1 OF 1

**PROFESSIONAL CERTIFICATION**  
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 38386, EXPIRATION DATE: 01/12/2016.  
*Stephen J. Jantz* 7/15/15  
Signature Of Professional Engineer DATE

