

**Bureau of Environmental Health**  
 8930 Stanford Boulevard, Columbia, MD 21045  
 Main: 410-313-2640 | Fax: 410-313-2648  
 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)

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

RECEIPT DATE: 3/2/15 **ONSITE SEWAGE DISPOSAL SYSTEM** P 555755

INSTALLATION APPROVAL DATE: 5/28/2015 **PERMIT** A \_\_\_\_\_  
**CONSTRUCTION**

PROPERTY ADDRESS: 11620 Old Clarksville Pike  
 SUBDIVISION: Homewood Crossing LOT: 82 TAX ID: \_\_\_\_\_  
 CONTRACTOR: Fogle's Septic Clean Inc. EMAIL: kevin@foglesinc.com  
 CONTRACTOR ADDRESS: 580 Obrecht Road, Sykesville, MD 21784 PHONE: 410-795-5670  
 PROPERTY OWNER: Toll MD III LP EMAIL: \_\_\_\_\_  
 OWNER ADDRESS: 14540 Edgewoods Way, Glenelg, MD 21737 PHONE: 410-489-2275

BAT UNIT MODEL: Norweco TNTLP 500 PUMP SIZE: \_\_\_\_\_ PUMP TANK CAPACITY: 750GPD  
 DISTRIBUTION SYSTEM: GRAVITY  LOW PRESSURE DOSED  NUMBER OF BEDROOMS: 5

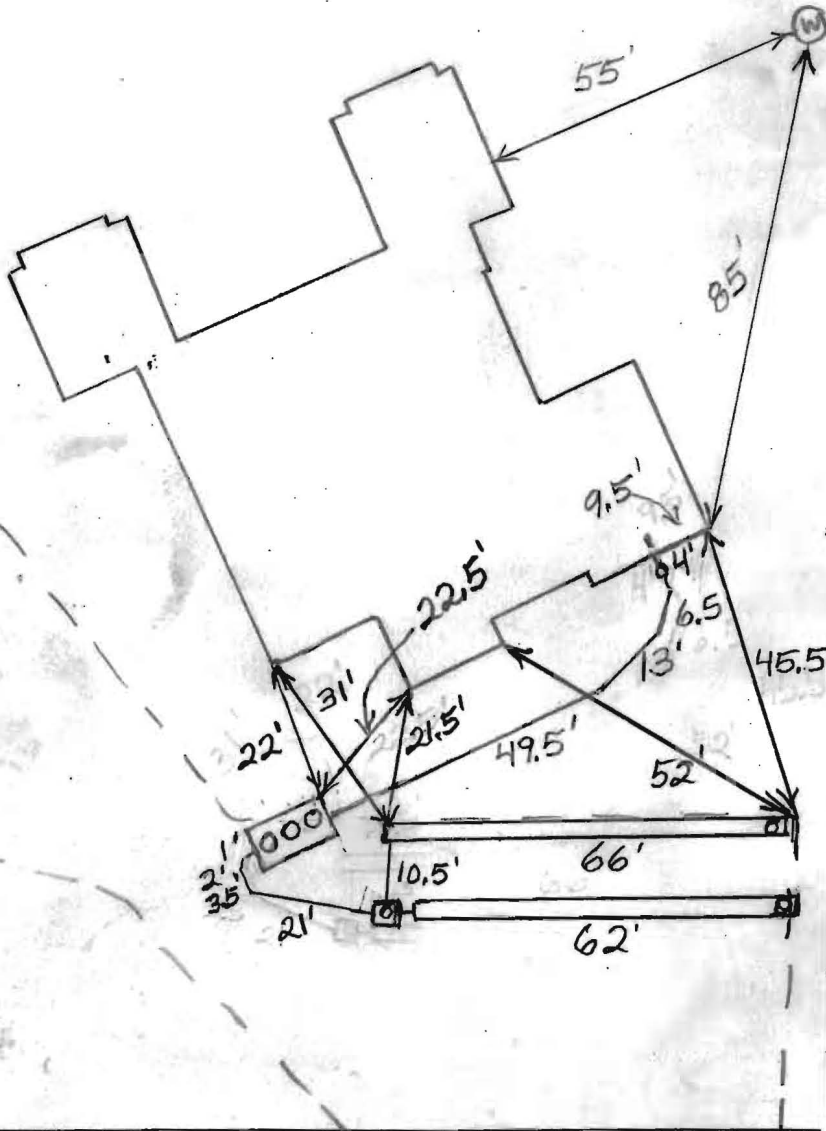
TRENCHES:	LINEAR FEET REQUIRED: <u>106 <del>142</del> 130'</u>	INLET DEPTH: <u>See BAT Plan 9' 5"</u>
	TRENCH WIDTH: <u>2' 3"</u>	MAXIMUM BOTTOM DEPTH: <u>8</u>
	MINIMUM SPACE BETWEEN TRENCHES: <u>10</u>	EFFECTIVE AREA BEGINNING DEPTH: <u>See BAT Plan</u>
LOCATION:	PER APPROVED SITE PLAN. SEWAGE DISPOSAL AREA AND BAT UNIT LOCATION MUST BE STAKED BY LICENSED SURVEYOR PRIOR TO PRE-CONSTRUCTION INSPECTION.	
NOTES:	Set BAT unit per plan. <u>Spec's Adjusted... (KNO) (2x71' Trenches)</u> <u>2x65'</u> <u>~ 72 tons stone</u>	

ISSUED BY: Hank Oswald ISSUE DATE: 4/6/15 EXPIRATION DATE: 4/6/16

- NOTE: CONTRACTOR MUST SCHEDULE A PRE-CONSTRUCTION INSPECTION PRIOR TO BEGINNING ANY INSTALLATION
- NOTE: CONTRACTOR MUST SCHEDULE AN INSPECTION AND GAIN APPROVAL OF ALL COMPONENTS PRIOR TO COVERING
- NOTE: STONE MUST BE APPROVED BY HEALTH DEPARTMENT AND GRAVEL TICKET MUST BE AVAILABLE FOR REVIEW.
- NOTE: WATERTIGHT SEPTIC TANKS REQUIRED
- NOTE: ALL PARTS OF SEPTIC SYSTEM SHALL BE AT LEAST 100 FEET DOWNGRADIENT FROM ANY WATER WELL
- NOTE: MANHOLE RISERS REQUIRED ON ALL SEPTIC TANKS AND PUMP CHAMBERS
- NOTE: AN ELECTRICAL PERMIT IS REQUIRED FOR INSTALLATION OF ANY ELECTRICAL COMPONENTS OF THE SYSTEM
- NOTE: AN INDIVIDUAL CERTIFIED BY MDE AND THE MANUFACTURER FOR BAT INSTALLATION MUST BE PRESENT AT ALL TIMES DURING BAT INSTALLATION.
- NOTE: MDE RECOMMENDS SEPTIC TANKS, BAT, AND OTHER PRETREATMENT UNITS BE PUMPED AT A FREQUENCY ADEQUATE TO ENSURE THAT SOLIDS ARE NOT DISCHARGED TO THE DISPOSAL AREA

**NEITHER THE HOWARD COUNTY COUNCIL NOR THE HEALTH DEPARTMENT IS RESPONSIBLE FOR THE SUCCESSFUL OPERATION OF ANY SYSTEM.**  
**PERMITTEE RESPONSIBLE FOR OBTAINING FINAL APPROVAL ON THIS PERMIT.**  
**CALL 410-313-1771 TO SCHEDULE INSPECTIONS.**

NOT TO SCALE



ROAD NAME

TRENCH/DRAINFIELD DATA

WIDTH	INLET	BOTTOM
3'	45-5'	8'

NUMBER OF TRENCHES 2  
 TOTAL LENGTH 128'  
 ABSORPTION AREA 384 Sidewalk  
 DISTRIBUTION BOX LEVEL Levelers  
 DISTRIBUTION BOX BAFFLE Yes  
 DISTRIBUTION BOX PORT Yes

SEPTIC TANK DATA

SEPTIC TANK I LEVEL Yes

MANUFACTURER Norweco

CAPACITY 1300 GAL

SEAM LOC Top

TANK LID DEPTH 1-2'

BAFFLES None

BAFFLE FILTER No

MANHOLE LOC Front, Middle, Rear

6" PORT LOC None

WATERTIGHT TEST No

SLOTTED N/A

DATE ON LID Dry

~~PUMP/SEPTIC TANK LEVEL N/A~~

~~MANUFACTURER \_\_\_\_\_~~

~~CAPACITY \_\_\_\_\_ GAL~~

~~SEAM LOC \_\_\_\_\_~~

~~TANK LID DEPTH \_\_\_\_\_~~

~~BAFFLES \_\_\_\_\_~~

~~BAFFLE FILTER \_\_\_\_\_~~

~~MANHOLE LOC \_\_\_\_\_~~

~~6" PORT LOC \_\_\_\_\_~~

~~WATERTIGHT TEST \_\_\_\_\_~~

~~SLOTTED \_\_\_\_\_~~

~~DATE ON LID \_\_\_\_\_~~

PRE-CONSTRUCTION:

5/19/2015 Fill and brush on septic easement. Scrape off fill and remove brush and call for a second layout. House connection location changed. O.K. to install tank near striped location. (BB) 5/21/2015 Laid out trenches. Had to decrease trench lengths to make trenches fit. Contractor installed the tank in the way. (BB)

INSTALLATION: 5/21/2015 Tank set. House connection made. (BB)

5/26/2015 System finished. O.K. to backfill. Need BAT approval from Norweco representative. (BB) 5/28/2015 Received BAT certification from Norweco representative. (BB)

FINAL INSPECTOR

B. Baker

DATE OF APPROVAL

5/28/2015

# Back River Pre-Cast, LLC

PO BOX 329  
Glyndon, MD 21071  
Phone # 410-833-3394  
Fax # 410-833-4116

## Letter of Certification

This is to certify that the Norweco Singlair TNT 600 GPD Septic Tank installed at 11602 Old Clarksville Pike, Clarksville, MD 21029 was installed on May 21, 2015 according to the manufacture's specifications.

Installer: Matthew Cooney

Property Owner: Toll Brothers



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MATTHEW GECKLE

Vice-President

Clerk of the Circuit Court for  
Howard County  
Land Records/Licensing

The Thomas Dorsey Building  
9250 Bendix Road  
Columbia, MD 21045  
410-313-5850

11620  
Clarksville  
AKE

=====  
LR - Agreement Recording Fee  
1x 20.00 20.00  
Grantor/Grantee Name: Toll Brothers Inc  
Reference/Control #: 132

LR - Agreement Surcharge  
1x 40.00 40.00

=====  
SubTotal: 60.00  
Total: 60.00

=====  
REV-Check-BOA 60.00  
Number : 01140799

10/28/2014 14:08 CC13-KD  
#3466121 /1342/109  
~ Thank you for visiting us today ~

HORSHAM, PA 19044

CLERK OF THE COURT  
00000

**Toll Bros., Inc**  
VAMD Regional Office  
(571) 291-8000

Check No. - 1140799

Check Date - 10/24/14

Stub 1 of 1

INVOICE NO	INVOICE DATE	COMMENT	GROSS	DEDUCTIONS	AMOUNT PAID
1498/0003	102314	LOT 3 HEATH DEPT DOCS	60.00		60.00



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

**OPERATION AND MAINTENANCE AGREEMENT  
FOR AN ON-SITE SEWAGE DISPOSAL SYSTEM  
HAVING AN ADVANCED PRE-TREATMENT SYSTEM**

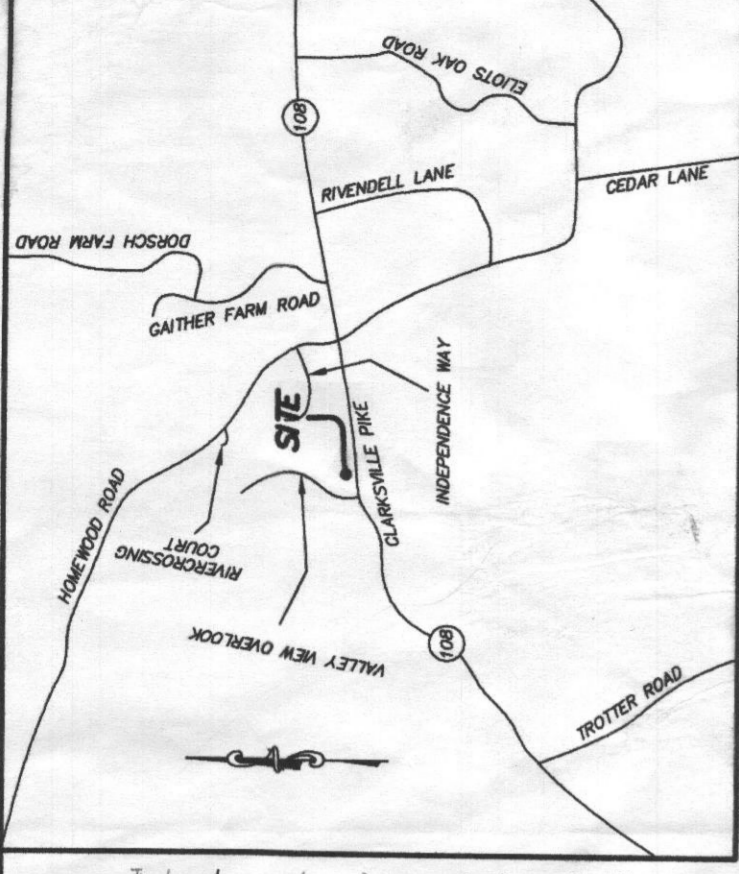
THIS AGREEMENT is made this 28<sup>th</sup> day of October, 2014, among Toll Brothers Inc, hereinafter collectively referred to as "Owner", and the Howard County Health Department hereinafter referred to as the "County".

WHEREAS, Owner is the owner or contract owner of a parcel of land located at 11620 Clarksville Pike Ellicott City, in the 5<sup>th</sup> Election District of Howard County, Maryland, and the deed to same is recorded or shall be recorded among the Land Records of Howard County, Maryland in Liber 9808 Folio 201.

WHEREAS, The Lot is suitable for the installation of a conventional on-site sewage disposal system with an advanced pre-treatment system, utilizing best available technology to perform nitrogen reduction, in accordance with the Code of Maryland Regulations 26.04.02.07, effective January 1, 2013. The pre-treatment device being installed is ECOPOD E60.

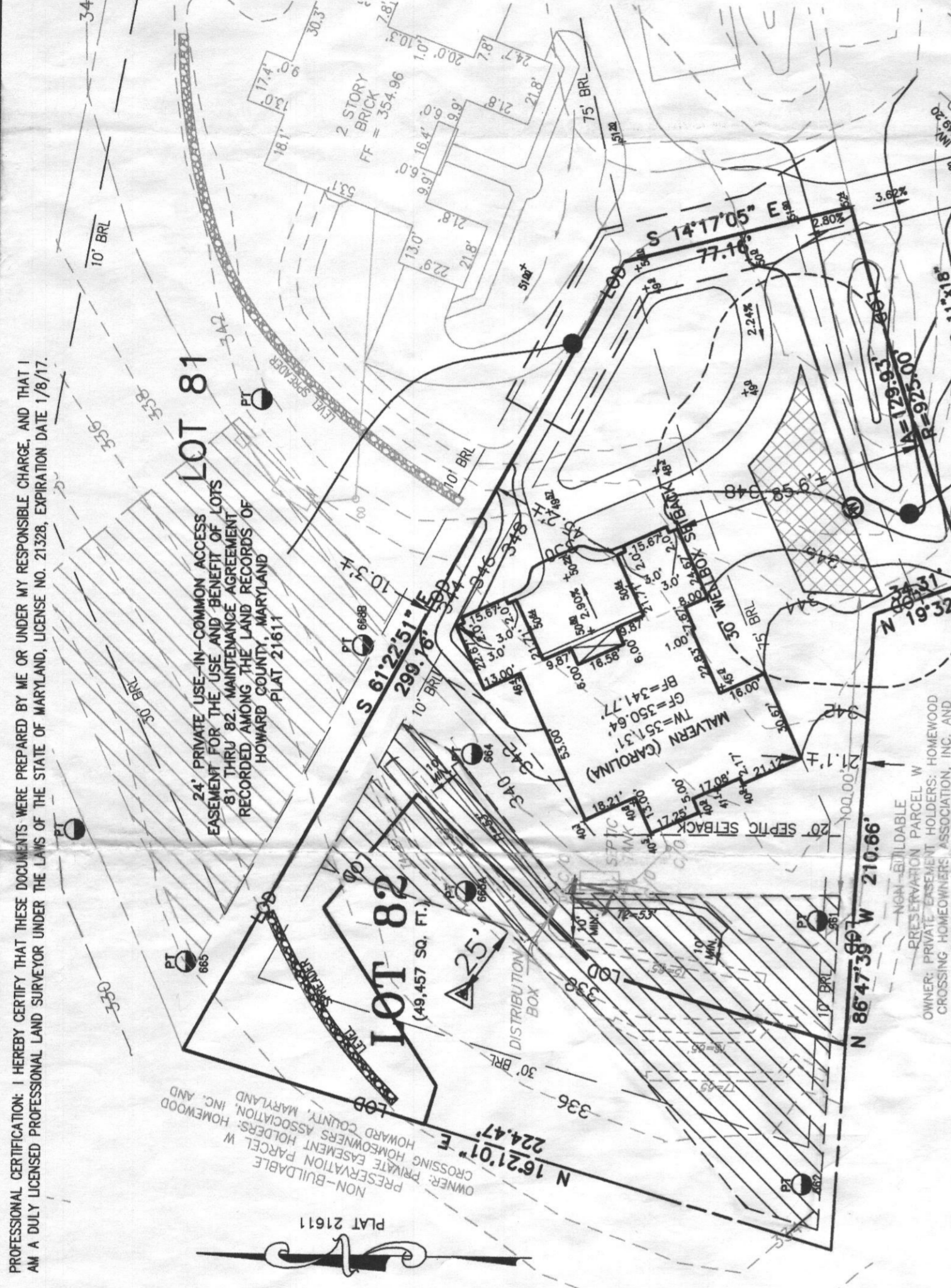
NOW, THEREFORE, the parties hereto agree as follows:

- A. Owner hereby grants to the County the right to enter upon the Lot at any reasonable time for access to the system to make periodic inspections and the Owner agrees to provide any information and data in Owner's possession reasonably requested and needed by the County to develop accurate and thorough test results.
- B. Owner acknowledges and agrees that neither the County nor any of its agents or employees, either officially or individually, underwrites the operation of any system approved by them.
- C. The Owner will devote reasonable care and effort to the operation and maintenance of the system in perpetuity or until a public sewer connection is made so that a system malfunction is not the result of poor maintenance, faulty operation, or neglect.
- D. The Owner agrees to enter into a contract reasonably acceptable to the Owner and the County with a private entity to operate and maintain on a regularly scheduled basis an approved advanced pre-treatment system. The owner shall supply a copy of the contract to the County when it is renewed or altered.
- E. This agreement shall run with the land and upon Owner's taking title to the Lot shall bind the Owner, their heirs, successors, and assigns to the provisions of the agreement as long as the property is in existence and after installation of the system. Owner further agrees that they shall inform in writing any subsequent purchaser or lessee of the Lot that the system shall require



VICINITY MAP  
1" = 1000'

- GENERAL NOTES:**
- THE SUBJECT PROPERTY IS ZONED RC-DEO PER THE 2/2/04 COMPREHENSIVE ZONING PLAN AND PER COMP-LITE ZONING REGULATIONS DATED 7/28/06.
  - PLAT REFERENCE: PLAT NO. 21611.
  - THE EXISTING TOPOGRAPHY WITHIN THE AREA OF PROPOSED WORK IS TAKEN FROM FIELD RUN SURVEY WITH MAXIMUM TWO FOOT CONTOUR INTERVALS PREPARED BY ESE, DATED 6/15/12.
  - SEE ARCHITECTURAL PLANS FOR BUILDING DIMENSIONS AND DESIGN DETAILS. PRIOR TO STACKOUT FOR CONSTRUCTION, IT SHALL BE THE OWNER/BUILDER'S RESPONSIBILITY TO PROVIDE ESE CONSULTANTS INC. WITH THE MOST RECENT SET OF HOUSE PLANS.
  - THE CONTRACTOR OR DEVELOPER SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS / BUREAU OF ENGINEERING / CONSTRUCTION INSPECTION DIVISION AT (410-313-1881) AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
  - THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
  - TOTAL LIMIT OF DISTURBANCE: 37,447 SQ. FT. / 0.86 AC.±
  - STORMWATER MANAGEMENT FOR THIS LOT IS PROVIDED BY PREVIOUSLY APPROVED PLAN F-09-039.
  - ANY DAMAGE TO PUBLIC "RIGHT-OF-WAYS" OR PAVED PUBLIC ROADS SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE IN ACCORDANCE WITH THE HOWARD COUNTY STANDARDS AND SPECIFICATIONS.
  - DEVIATIONS FROM THESE PLANS AND SPECIFICATIONS WITHOUT PRIOR WRITTEN CONSENT OF THE CIVIL ENGINEER (ESE) MAY CAUSE THE WORK TO BE UNACCEPTABLE.
  - THE DIMENSIONED DISTANCES SHALL GOVERN IF SCALED AND DIMENSIONED DISTANCES ON THIS PLAN ARE FOUND TO BE IN DISAGREEMENT.
  - THE LOTS SHOWN HEREON COMPLY WITH THE MINIMUM LOT AREA AND OWNERSHIP WIDTH AS REQUIRED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT.
  - THESE AREAS DESIGNATE A PRIVATE SEWAGE EASEMENT OF AT LEAST 10,000 SQUARE FEET AS REQUIRED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWAGE IS AVAILABLE. THESE EASEMENTS SHALL BE NULL AND VOID UPON CONNECTION TO A PUBLIC SEWAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT VARIANCES FOR ENCROACHMENTS INTO THE PRIVATE SEWAGE EASEMENT. RECORDATION OF A MODIFIED SEWAGE EASEMENT SHALL NOT BE NECESSARY.
  - EXISTING WELLS, SEPTIC SYSTEMS, AND SEWAGE DISPOSAL AREAS WITHIN 100' OF THE PROPERTY AND THOSE WELLS WITHIN 200' DOWN GRADIENT OF EXISTING OR PROPOSED SEPTIC SYSTEMS OR SEWAGE DISPOSAL AREAS HAVE BEEN SHOWN.
  - ANY CHANGES TO A PRIVATE SEWAGE AREA SHALL REQUIRE A REVISED PERCOLATION CERTIFICATION PLAN.
  - UPON BUILDING PERMIT REVIEW THE SEPTIC SYSTEMS FOR ALL PROPOSED STRUCTURES AND/OR EXISTING STRUCTURE EXPANSIONS SHALL BE RE-EVALUATED TO DETERMINE SUFFICIENT SYSTEM CAPACITY.
  - THE DEVELOPMENT OF THIS LOT DOES NOT REQUIRE AN ENVIRONMENTAL CONCEPT PLAN SINCE STORMWATER MANAGEMENT WAS PREVIOUSLY APPROVED UNDER F-09-039.
  - A STANDARD SEDIMENT CONTROL PLAN MAY BE USED FOR DEVELOPMENT OF THIS LOT. REFERENCE GRADING PLAN GP-14-034 DATED 10/30/13.
  - THE EXISTING WELL(S) SHOWN ON THIS PLAN (IDENTIFIED WITH THE ATTACHED WELL TAG NUMBER HO-95-1982 HAS BEEN FIELD LOCATED BY ESE CONSULTANTS - PROFESSIONAL LAND SURVEYOR(S), AND IS ACCURATELY SHOWN.
  - BUILDING SETBACKS (B.S.L.) SHOWN HEREON PER SITE DEVELOPMENT PLAN SETBACK DISTANCES SHOWN HEREON AS "±" HAVE AN ACCURACY OF ±0.1' FOOT.
  - CULVERT FOR DRAINAGE PER F-09-039 AS SHOWN ON SHEET 2 OF 7 OF THE PLAN SET LABELED "SUPPLEMENTAL PLAN, SEDIMENT & EROSION CONTROL PLAN, LANDSCAPE, TOPOGRAPHIC & SOILS" HOMEWOOD CROSSING PHASE 3 - PART TWO.



- TRENCH DATA**
- PIPE INVERT IS 3' BELOW GROUND GRAVEL UNDER PIPE IS 5' BOTTOM MAX. DEPTH (8')
- TRENCH 1 (T1):**  
GROUND ABOVE = 339.3'  
INV. IN = 336.3'  
BOTTOM TRENCH = 331.3'
- TRENCH 2 (T2):**  
GROUND ABOVE = 339.3'  
INV. IN = 336.3'  
BOTTOM TRENCH = 331.3'
- (FIRST REPLACEMENT TRENCHES)**
- BACKUP TRENCH 3 (T3):**  
GROUND ABOVE = 338.7'  
INV. IN = 335.7'  
BOTTOM TRENCH = 330.7'
- BACKUP TRENCH 4 (T4):**  
GROUND ABOVE = 337.7'  
INV. IN = 334.7'  
BOTTOM TRENCH = 329.7'
- (SECOND REPLACEMENT TRENCHES)**
- BACKUP TRENCH 5 (T5):**  
GROUND ABOVE = 338.7'  
INV. IN = 335.7'  
BOTTOM TRENCH = 330.7'
- BACKUP TRENCH 6 (T6):**  
GROUND ABOVE = 337.7'  
INV. IN = 334.7'  
BOTTOM TRENCH = 329.7'
- BACKUP TRENCH 7 (T7):**  
GROUND ABOVE = 337.0'  
INV. IN = 334.0'  
BOTTOM TRENCH = 329.0'
- SEWAGE DISPOSAL SYSTEM DATA (S. BDRM)**
- NORWECO SINGULAR TINTP-500 (3 CHAMBER SYSTEM)  
PROPOSED INVERT AT FOUNDATION WALL: 339.8'  
1. EXISTING GRADE OVER TANK: 340.0'  
INVERT IN: 337.9' INVERT OUT: 337.6'
- DISTRIBUTION BOX:  
EXISTING GRADE OVER BOX: 339.2'  
PROPOSED GRADE OVER BOX: 339.2'  
INVERT IN: 337.4' INVERT OUT: 337.1'
- TRENCH DESIGN, INITIAL SYSTEM, FIRST REPLACEMENT:**  
(5 BDRM x 150 GPD/BDRM = 750 GPD)  
750 GPD x 1.2 APP. RATE = 625 SF  
USE 3" WIDE TRENCH WITH 60" GRAVEL BELOW PIPE  
10' MIN. SPACING BETWEEN TRENCH EDGES  
625 SF ÷ 3" WIDTH = 208.33 LF x 0.50 = 104.17 LF MIN. TRENCH  
USE 2.5' LONG TRENCHES = 108 LF
- TRENCH DESIGN, SECOND REPLACEMENT:**  
(5 BDRM x 150 GPD/BDRM = 750 GPD)  
750 GPD x 0.8 APP. RATE = 637.50 SF  
USE 3" WIDE TRENCH WITH 60" GRAVEL BELOW PIPE  
10' MIN. SPACING BETWEEN TRENCH EDGES  
637.50 SF ÷ 3" WIDTH = 212.50 LF x 0.62 = 193.75 LF MIN. TRENCH  
USE 3.65' LONG TRENCHES = 195 LF

- SEPTIC SYSTEM / BEST AVAILABLE TECHNOLOGY (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 REVISED SITE PLAN MAY BE REQUIRED.
  - THE MAXIMUM DEPTH OF THE BAT PER THE MANUFACTURER'S SPECIFICATION IS 3 FEET COVER.
  - THE BLOWER MAY NOT BE LOCATED MORE THAN 100 FEET FROM THE TANK BASED ON THE MANUFACTURER'S SPECIFICATIONS.
  - THE BAT SYSTEM SHALL BE MAINTAINED AND OPERATED FOR THE LIFE OF THE SYSTEM.
  - THE BAT SHALL BE OPERATED BY AND MAINTAINED BY A CERTIFIED SERVICE PROVIDER.
  - 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.
  - ELECTRICAL WORK FOR THE BAT INSTALLATION MUST BE PERFORMED BY A LICENSED ELECTRICIAN.
  - AN AGREEMENT AND EASEMENT MUST BE COMPLETED AND SIGNED BY ALL APPLICABLE PARTIES, AND RECORDED IN THE LAND RECORDS OF HOWARD COUNTY.
  - THE HEALTH DEPARTMENT REQUIRES DOCUMENTATION FOR THE START-UP CERTIFICATION FROM THE MANUFACTURER PRIOR TO FINAL APPROVAL OF THE INSTALLATION.

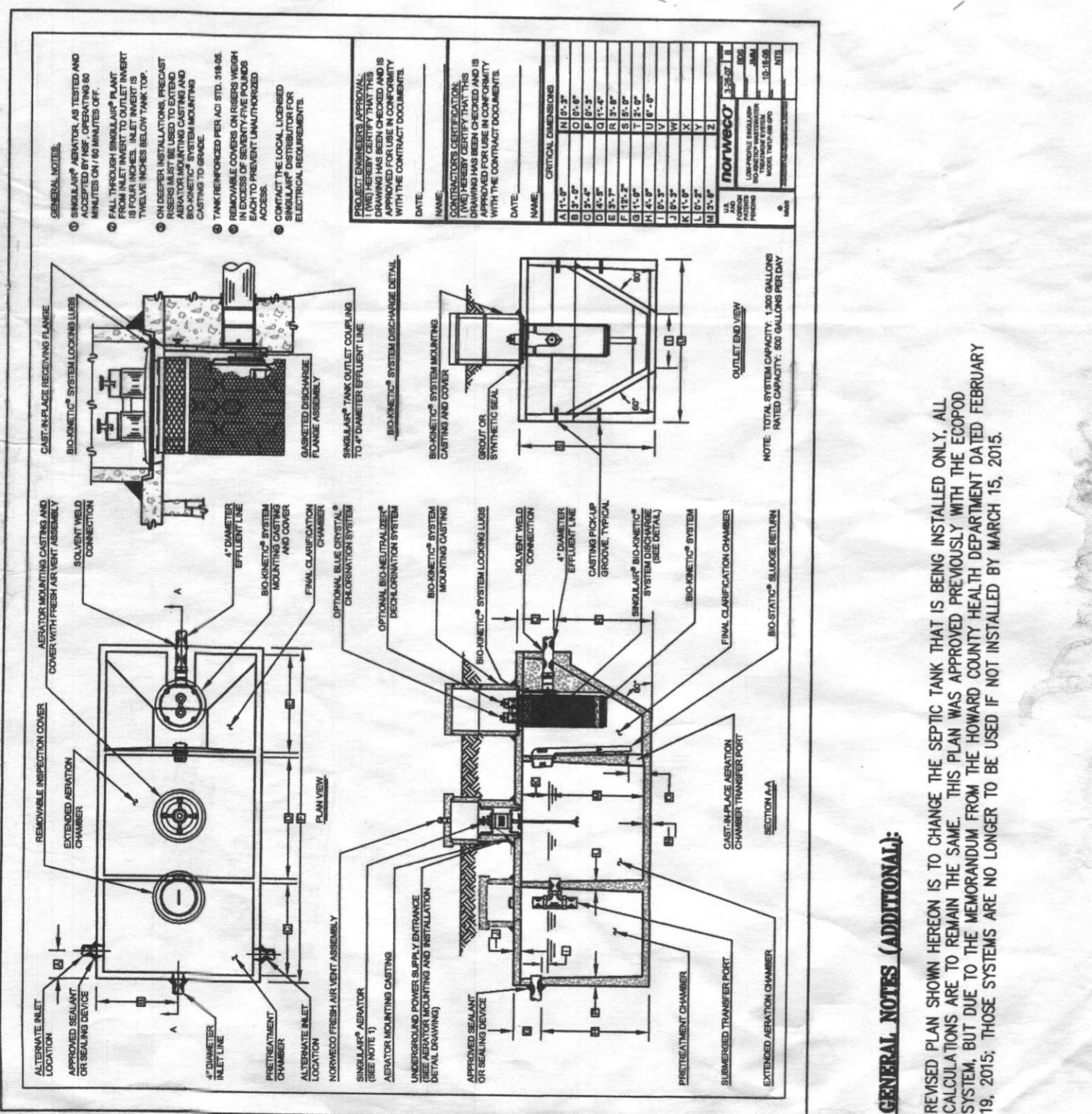
SITE PLAN FOR BAT INSTALLATION  
LOT 82  
**HOMEWOOD CROSSING**  
LIBER 9808, FOLIO 204  
PLAT NO. 21611  
FIFTH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
ADDRESS: 11620 CLARKSVILLE PIKE  
ELLCOTT CITY, MARYLAND

APPROVED: FOR HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

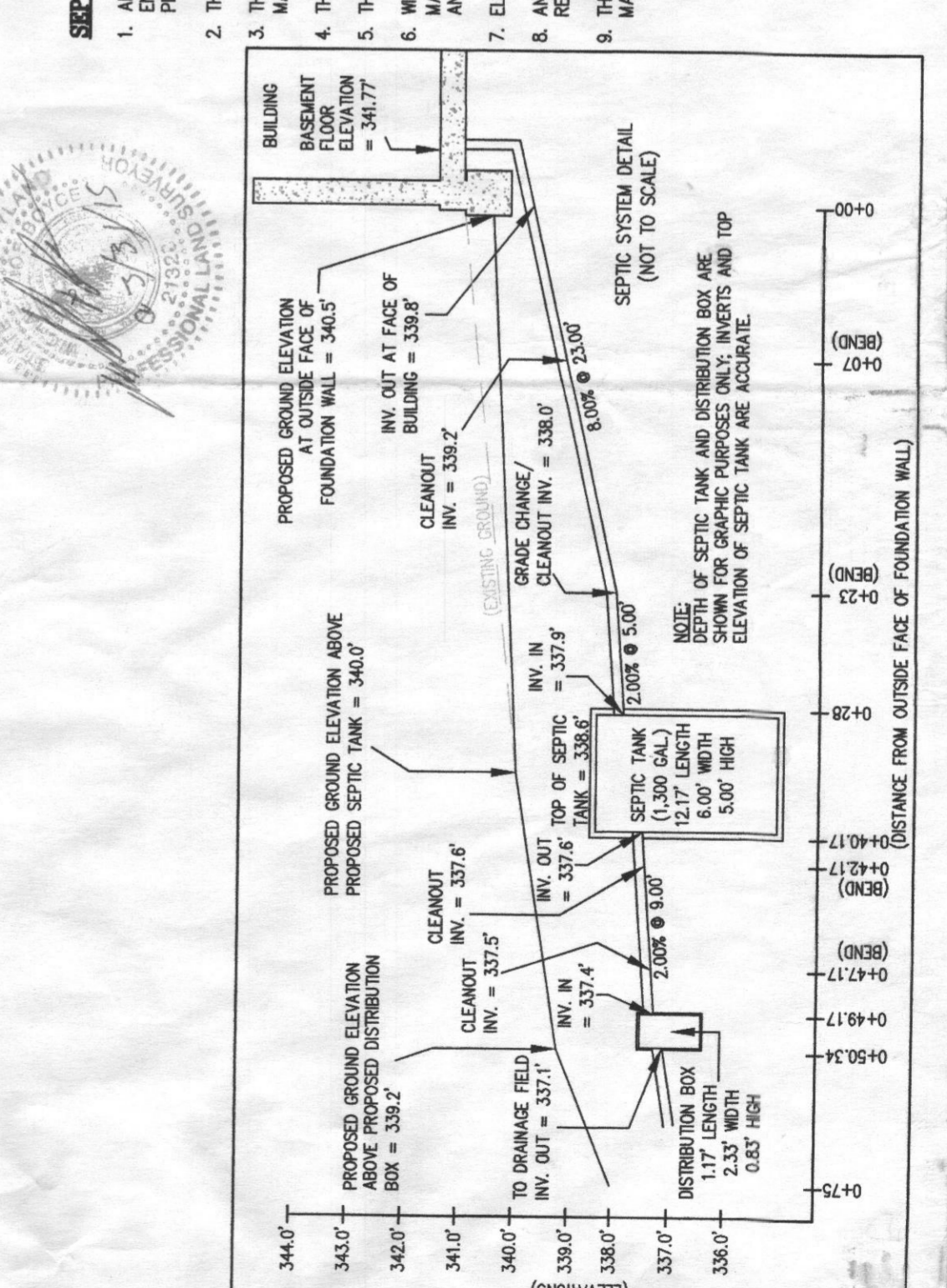
CHIEF, DEVELOPMENT ENGINEERING DIVISION

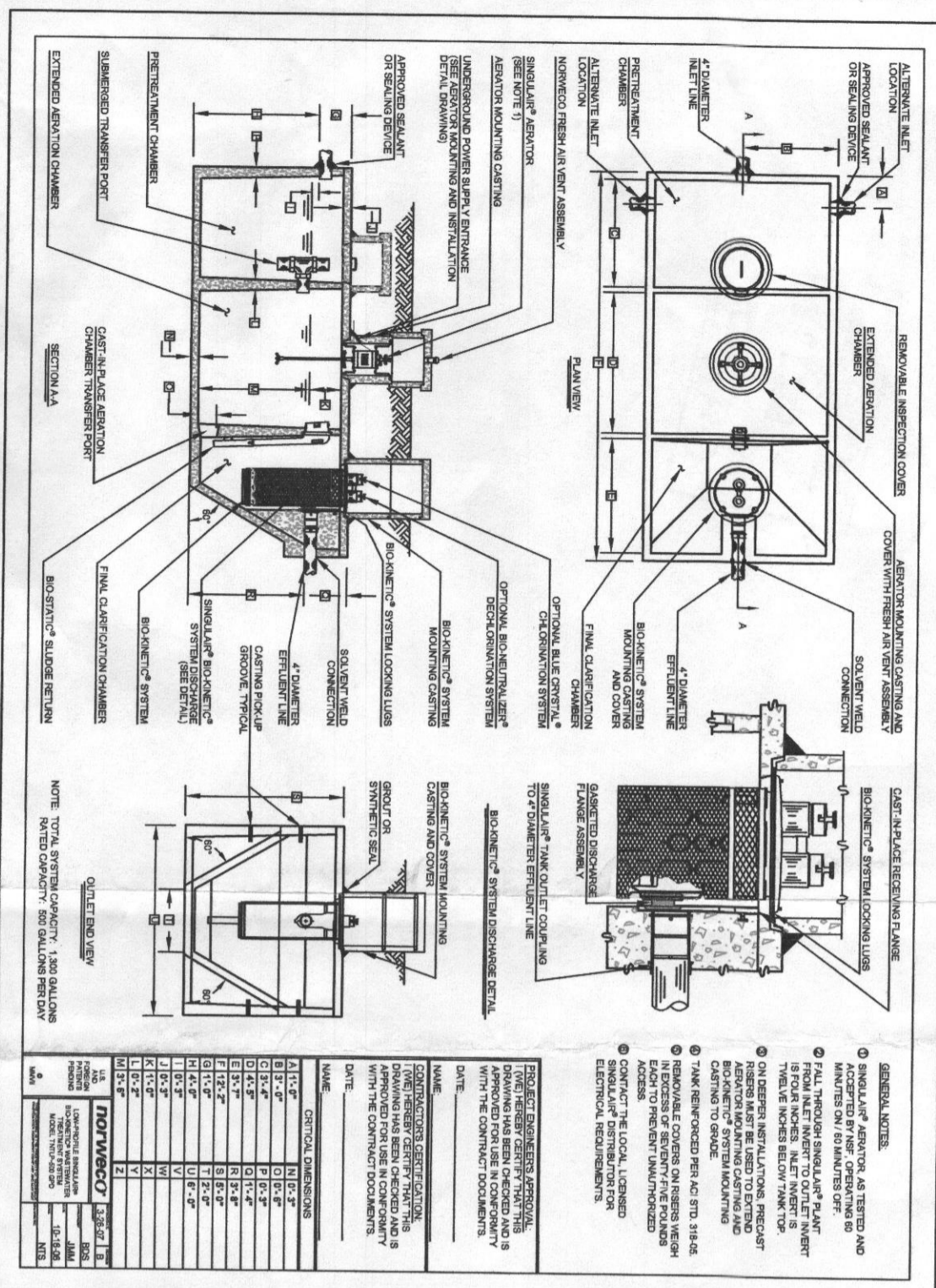
DIRECTOR

PROFESSIONAL ENGINEER



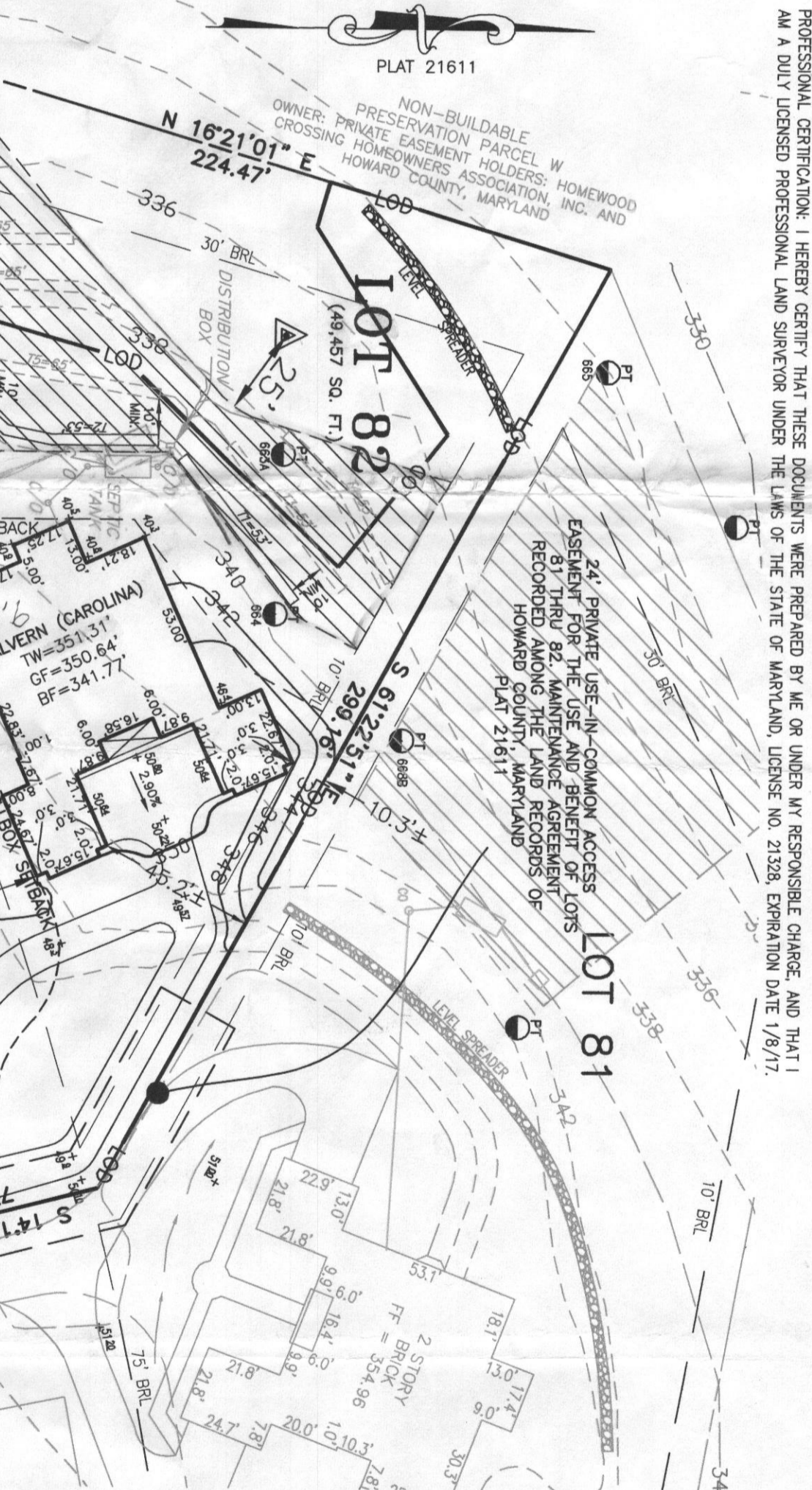
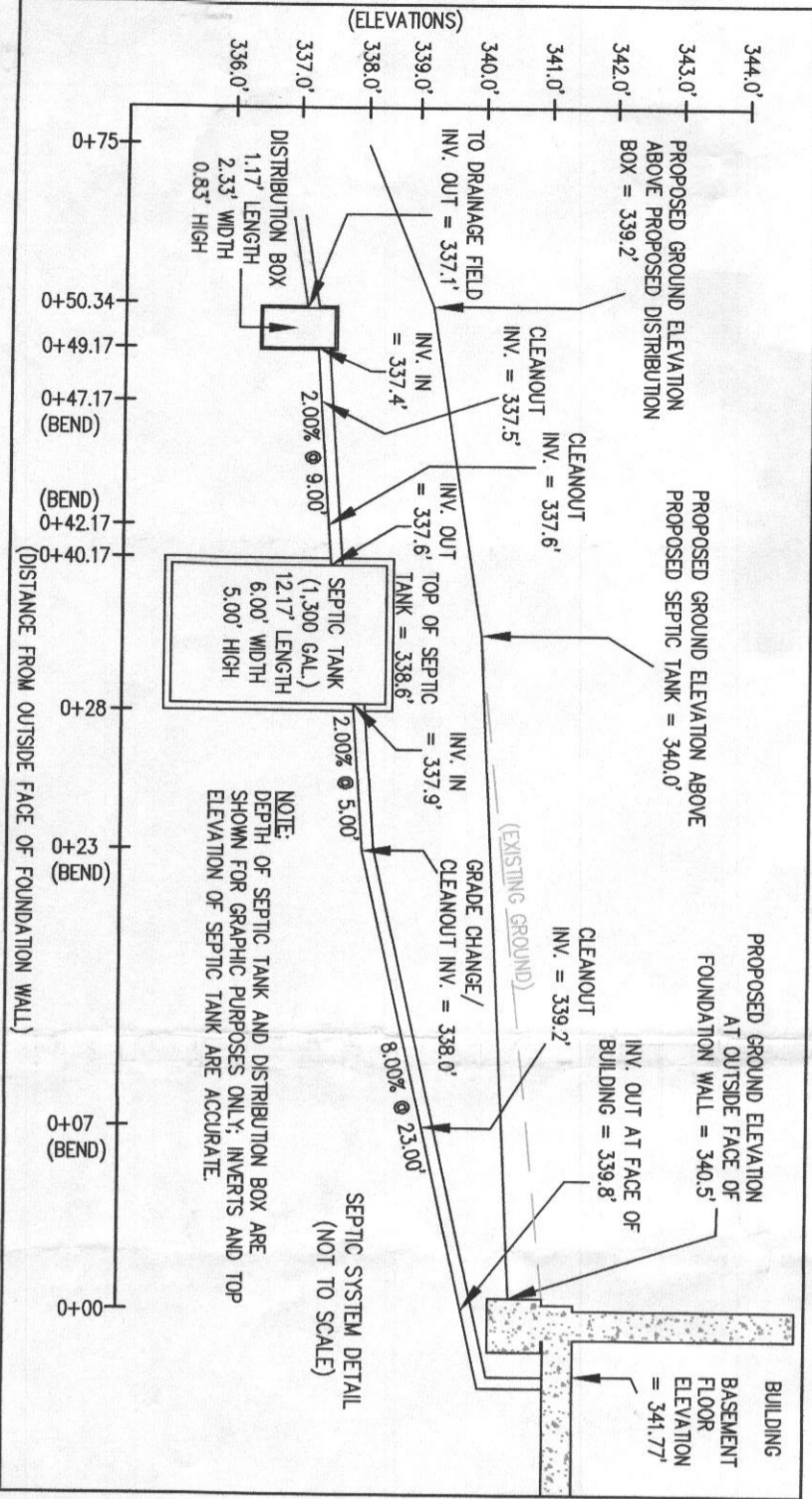
- GENERAL NOTES (ADDITIONAL):**
- REVISED PLAN SHOWN HEREON IS TO CHANGE THE SEPTIC TANK THAT IS BEING INSTALLED ONLY. ALL CALCULATIONS ARE TO REMAIN THE SAME. THIS PLAN WAS APPROVED PREVIOUSLY WITH THE ECOPPOD SYSTEM, BUT DUE TO THE MEMORANDUM FROM THE HOWARD COUNTY HEALTH DEPARTMENT DATED FEBRUARY 19, 2015; THOSE SYSTEMS ARE NO LONGER TO BE USED IF NOT INSTALLED BY MARCH 15, 2015.





**GENERAL NOTES (ADDITIONAL):**

REVISED PLAN SHOWN HEREON IS TO CHANGE THE SEPTIC TANK THAT IS BEING INSTALLED ONLY. ALL CALCULATIONS ARE TO REMAIN THE SAME. THIS PLAN WAS APPROVED PREVIOUSLY WITH THE ECOPROD SYSTEM, BUT DUE TO THE REMOVAL FROM THE HOWARD COUNTY HEALTH DEPARTMENT DATED FEBRUARY 19, 2015, THOSE SYSTEMS ARE NO LONGER TO BE USED IF NOT INSTALLED BY MARCH 15, 2015.



PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED BY ME OR UNDER MY RESPONSIBLE CHARGE, AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21328, EXPIRATION DATE 1/8/17.

- LEGEND:**
- PASSSED PERG TEST LOCATION
  - FAILED PERG TEST LOCATION
  - LIMITS OF DISTURBANCE
  - G&B GLADSTONE LOAM, 3% TO 8% SLOPES
  - TW TOP OF WALL
  - GF GARAGE FLOOR
  - BF BASEMENT FLOOR
  - BRL BUILDING RESTRICTION LINE
- HOUSE OPTIONS:**
- TYPE: MALVERN (CAROLINA)  
WALK-OUT BASEMENT  
EXPANDED FAMILY ROOM/GREAT ROOM  
PALM BEACH SUNROOM ADDITION  
GRAND CONSERVATORY ETC ADDITION  
ADULT 1 TO BASEMENT FOUNDATION WALLS  
ADULT POWDER ROOM - FIRST/SECOND FLOOR  
BANKED COUNTRY GARAGE(S)  
BANKED SUNSCREEN PORCH  
EXPANDED PATIO  
CIRCULAR DRIVEWAY PER MARKETING PLAN
- SEPTIC SYSTEM/BEST AVAILABLE TECHNOLOGY (BAT) NOTES:**
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  - THE MAXIMUM DEPTH OF THE BAT PER THE MANUFACTURER'S SPECIFICATION IS 3 FEET COVER.
  - THE BLOWER MAY NOT BE LOCATED MORE THAN 100 FEET FROM THE ANK BASED ON THE MANUFACTURER'S SPECIFICATIONS.
  - THE BAT SYSTEM SHALL BE MAINTAINED AND OPERATED FOR THE LIFE OF THE SYSTEM.
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  - AN AGREEMENT AND EASEMENT MUST BE COMPLETED AND SIGNED BY ALL APPLICABLE PARTIES, AND RECORDED IN THE LAND RECORDS OF HOWARD COUNTY.
  - THE HEALTH DEPARTMENT REQUIRES DOCUMENTATION FOR THE START-UP CERTIFICATION FROM THE MANUFACTURER PRIOR TO FINAL APPROVAL OF THE INSTALLATION.

- SEWER DISPOSAL SYSTEM DATA (S DDDM):**
- NORWECO SINGULAR TNDP-500 (3 CHAMBER SYSTEM)
- PROPOSED INVERT AT FOUNDATION WALL: 339.8'
1. EXISTING GRADE OVER TANK: 340.0'
- PROPOSED GRADE OVER TANK: 340.0'
- INVERT IN: 337.9'
- INVERT OUT: 337.6'
2. DISTRIBUTION BOX:
- EXISTING GRADE OVER BOX: 339.2'
- PROPOSED GRADE OVER BOX: 339.2'
- INVERT IN: 337.4'
- INVERT OUT: 337.1'
3. TRENCH DESIGN, INITIAL SYSTEM FIRST REPLACEMENT:
- (5) BOPM x 150 GPD/BOPM = 750 GPD
- 750 GPD x 1.2 APP. RATE = 625 SF
- USE 3" WIDE TRENCH WITH 60" GRAVEL BELOW PIPE
- 10' MIN. SPACING BETWEEN TRENCH EDGES
- USE 2.53' LONG TRENCHES = 106 LF
4. TRENCH DESIGN, SECOND REPLACEMENT:
- (5) BOPM x 150 GPD/BOPM = 750 GPD
- 750 GPD x 0.8 APP. RATE = 937.50 SF
- USE 3" WIDE TRENCH WITH 60" GRAVEL BELOW PIPE
- 10' MIN. SPACING BETWEEN TRENCH EDGES
- 937.50 SF x 3" WIDTH = 3125.0 LF x 0.62 = 1937.5 LF MIN. TRENCH
- USE 3.65' LONG TRENCHES = 195 LF
- (FIRST REPLACEMENT TRENCHES)**
- BACKUP TRENCH 1 (1T):
- GROUND ABOVE = 339.3'
- INVERT IN = 336.3'
- BOTTOM TRENCH = 331.3'
- TRENCH 2 (1T):
- GROUND ABOVE = 339.3'
- INVERT IN = 336.3'
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- (SECOND REPLACEMENT TRENCHES)**
- BACKUP TRENCH 3 (1T):
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- BOTTOM TRENCH = 330.7'
- BACKUP TRENCH 4 (1T):
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- INVERT IN = 334.7'
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- BACKUP TRENCH 6 (1T):
- GROUND ABOVE = 337.7'
- INVERT IN = 334.7'
- BOTTOM TRENCH = 329.7'
- BACKUP TRENCH 7 (1T):
- GROUND ABOVE = 337.0'
- INVERT IN = 334.0'
- BOTTOM TRENCH = 329.0'

- APPROVED SEPTIC SYSTEM PLAN**
- Howard County Health Department
- Signature: \_\_\_\_\_ Date: \_\_\_\_\_
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 MUST BE REQUIRED.
2. THE MAXIMUM DEPTH OF THE BAT PER THE MANUFACTURER'S SPECIFICATION IS 3 FEET COVER.
3. THE BLOWER MAY NOT BE LOCATED MORE THAN 100 FEET FROM THE ANK BASED ON THE MANUFACTURER'S SPECIFICATIONS.
4. THE BAT SYSTEM SHALL BE MAINTAINED AND OPERATED FOR THE LIFE OF THE SYSTEM.
5. THE BAT SHALL BE OPERATED BY AND MAINTAINED BY A CERTIFIED SERVICE PROVIDER.
6. 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.
7. ELECTRICAL WORK FOR THE BAT INSTALLATION MUST BE PERFORMED BY A LICENSED ELECTRICIAN.
8. AN AGREEMENT AND EASEMENT MUST BE COMPLETED AND SIGNED BY ALL APPLICABLE PARTIES, AND RECORDED IN THE LAND RECORDS OF HOWARD COUNTY.
9. THE HEALTH DEPARTMENT REQUIRES DOCUMENTATION FOR THE START-UP CERTIFICATION FROM THE MANUFACTURER PRIOR TO FINAL APPROVAL OF THE INSTALLATION.

- APPROVED SEPTIC SYSTEM PLAN**
- Howard County Health Department
- Signature: \_\_\_\_\_ Date: \_\_\_\_\_
1. ANY DAMAGE TO PUBLIC "RIGHT-OF-WAYS" OR PAVED PUBLIC ROADS SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE IN ACCORDANCE WITH THE HOWARD COUNTY STANDARDS AND SPECIFICATIONS.
2. DEVIATIONS FROM THESE PLANS AND SPECIFICATIONS WITHOUT PRIOR WRITTEN CONSENT OF THE CIVIL ENGINEER (ESE) MAY CAUSE THE WORK TO BE UNACCEPTABLE.
3. THE DIMENSIONED DISTANCES SHALL GOVERN IF SCALED AND DIMENSIONED DISTANCES ON THIS PLAN ARE FOUND TO BE IN DISAGREEMENT.
4. THE LOTS SHOWN HEREON COMPLY WITH THE MINIMUM LOT AREA AND OWNERSHIP WIDTH AS REQUIRED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT.
5. THESE AREAS DESIGNATE A PRIVATE SEWAGE EASEMENT OF AT LEAST 10,000 SQUARE FEET AS REQUIRED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL. IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWAGE IS AVAILABLE. THESE EASEMENTS SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT VARIANCES FOR ENCHANGEMENTS UNTO THE PRIVATE SEWAGE EASEMENT. RECORDATION OF A MODIFIED SEWAGE EASEMENT SHALL NOT BE NECESSARY.
6. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
7. TOTAL LIMIT OF DISTURBANCE: 37,447 SQ. FT. / 0.86 AC.±
8. STORMWATER MANAGEMENT FOR THIS LOT IS PROVIDED BY PREVIOUSLY APPROVED PLAN F-09-039.
9. ANY DAMAGE TO PUBLIC "RIGHT-OF-WAYS" OR PAVED PUBLIC ROADS SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE IN ACCORDANCE WITH THE HOWARD COUNTY STANDARDS AND SPECIFICATIONS.
10. DEVIATIONS FROM THESE PLANS AND SPECIFICATIONS WITHOUT PRIOR WRITTEN CONSENT OF THE CIVIL ENGINEER (ESE) MAY CAUSE THE WORK TO BE UNACCEPTABLE.
11. THE DIMENSIONED DISTANCES SHALL GOVERN IF SCALED AND DIMENSIONED DISTANCES ON THIS PLAN ARE FOUND TO BE IN DISAGREEMENT.
12. THE LOTS SHOWN HEREON COMPLY WITH THE MINIMUM LOT AREA AND OWNERSHIP WIDTH AS REQUIRED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT.
13. THESE AREAS DESIGNATE A PRIVATE SEWAGE EASEMENT OF AT LEAST 10,000 SQUARE FEET AS REQUIRED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL. IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWAGE IS AVAILABLE. THESE EASEMENTS SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT VARIANCES FOR ENCHANGEMENTS UNTO THE PRIVATE SEWAGE EASEMENT. RECORDATION OF A MODIFIED SEWAGE EASEMENT SHALL NOT BE NECESSARY.
14. EXISTING WELLS, SEPTIC SYSTEMS, AND SEWAGE DISPOSAL AREAS WITHIN 100' OF THE PROPERTY AND THOSE WELLS WITHIN 200' DOWN GRADIENT OF EXISTING OR PROPOSED SEPTIC SYSTEMS OR SEWAGE DISPOSAL AREAS HAVE BEEN SHOWN.
15. ANY CHANGES TO A PRIVATE SEWAGE AREA SHALL REQUIRE A REVISED PERCOLATION CERTIFICATION PLAN.
16. UPON BUILDING PERMIT REVIEW THE SEPTIC SYSTEMS FOR ALL PROPOSED STRUCTURES AND/OR EXISTING STRUCTURE EXPANSIONS SHALL BE RE-EVALUATED TO DETERMINE SUFFICIENT SYSTEM CAPACITY.
17. THE DEVELOPMENT OF THIS LOT DOES NOT REQUIRE AN ENVIRONMENTAL CONCEPT PLAN SINCE STORMWATER MANAGEMENT WAS PREVIOUSLY APPROVED UNDER F-09-039.
18. A STANDARD SEDIMENT CONTROL PLAN MAY BE USED FOR DEVELOPMENT OF THIS LOT. REFERENCE GRADING PLAN GP-14-034 DATED 10/20/13.
19. THE EXISTING WELL(S) SHOWN ON THIS PLAN (IDENTIFIED WITH THE ATTACHED WELL TAG NUMBER HO-95-1982 HAS BEEN FIELD LOCATED BY ESE CONSULTANTS - PROFESSIONAL LAND SURVEYOR(S), AND IS ACCURATELY SHOWN.
20. BUILDING SETBACKS (B.R.L.'S) SHALL HAVE AN ACCURACY OF ±0.1' FOOT. DISTANCES SHOWN HEREON AS "±" ARE AN ACCURACY OF ±0.1' FOOT.
21. CULVERT FOR DRIVEWAY PER F-09-039 AS SHOWN ON SHEET 2 OF 7 OF THE PLAN SET LABELED "SUPPLEMENTAL PLAN, SEDIMENT & EROSION CONTROL PLAN, LANDSCAPE, TOPOGRAPHIC & SOILS" HOWARD COUNTY CROSSING PHASE 3 - PART TWO.

**SITE PLAN FOR BAT INSTALLATION**

LOT 82

**HOMEWOOD CROSSING**

LIBER 9808, FOLIO 204

PLAT NO. 21611

FIFTH ELECTION DISTRICT

HOWARD COUNTY, MARYLAND

ADDRESS: 11620 CLARKSVILLE PIKE

ELLCOTT CITY, MARYLAND

**ES&E Land Planning Engineering Land Surveying**

ES&E Consultants Inc.

7164 Columbia Gateway Dr.

Suite 230

Columbia, MD 21046

TEL: 410-872-9105

FAX: 410-872-4870

DATE: 03/30/15

SCALE: 1"=40'

FILE: BAT LOT 82 rev2

JOB NO.: 1214

DRAWN: R.C.K.

