



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: 3-23-15

Permit No.: BIS 000943

Building Address: 18361 CHELSEA KNOLLS DR
 City: AT AIN State: MD Zip Code: 21771
 Suite/Apt. # _____ SDP/WP/BA #: _____
 Census Tract: _____ Subdivision: _____
 Section: _____ Area: _____ Lot: 7
 Tax Map: 12 Parcel: 78 Grid: 5
 Zoning: _____ Map Coordinates: _____ Lot Size: 1.17(A)

Property Owner's Name: NUR INC
 Address: 9720 Potomac woods Dr
 City: Columbia State: MD Zip Code: 21046
 Phone: _____ Fax: _____
 Email: _____

Existing Use: SFD
 Proposed Use: SFD w/ propane tank
 Estimated Construction Cost: \$ 8000
 Description of Work:
install 1000 gal in-ground propane tank

Applicant's Name & Mailing Address, (If other than stated herein)
 Applicant's Name: Jeremy [unclear]
 Address: PO Box 1053
 City: Stokessburg State: MD Zip Code: 21784
 Phone: 410-315-229 Fax: _____
 Email: Jeremy@AppliedandApproved.com

Occupant or Tenant: _____
 Was tenant space previously occupied? Yes No
 Contact Name: _____
 Address: Owner
 City: _____ State: _____ Zip Code: _____
 Phone: _____ Fax: _____
 Email: _____

Contractor Company: TECH AIR
 Contact Person: Jeff [unclear]
 Address: 1560 [unclear] Center Dr Ste A-D
 City: Baltimore State: MD Zip Code: 21007
 License No.: 68161
 Phone: 410-515-1153 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 checked="" type="checkbox"/> SF Dwelling <input type="checkbox"/> SF Townhouse
No. of stories:	Depth Width
Gross area, sq. ft./floor:	1 st floor:
Area of construction (sq. ft.):	2 nd floor:
Use group:	Basement:
	<input type="checkbox"/> Finished Basement
	<input type="checkbox"/> Unfinished Basement
	<input type="checkbox"/> Crawl Space
Construction type:	<input type="checkbox"/> Slab on Grade
<input type="checkbox"/> Reinforced Concrete	No. of Bedrooms:
<input type="checkbox"/> Structural Steel	Multi-family Dwelling
<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	
Water Supply	
<input type="checkbox"/> Public	
<input checked="" type="checkbox"/> Private	
Sewage Disposal	
<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	
Heating System	
<input type="checkbox"/> Electric <input type="checkbox"/> Oil	
<input type="checkbox"/> Natural Gas <input type="checkbox"/> Propane Gas	
<input type="checkbox"/> Other:	
Sprinkler System:	
<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 [unclear]
 Email Address: Jeremy@AppliedandApproved.com Date: 3/23/15
 Title/Company: [unclear]

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

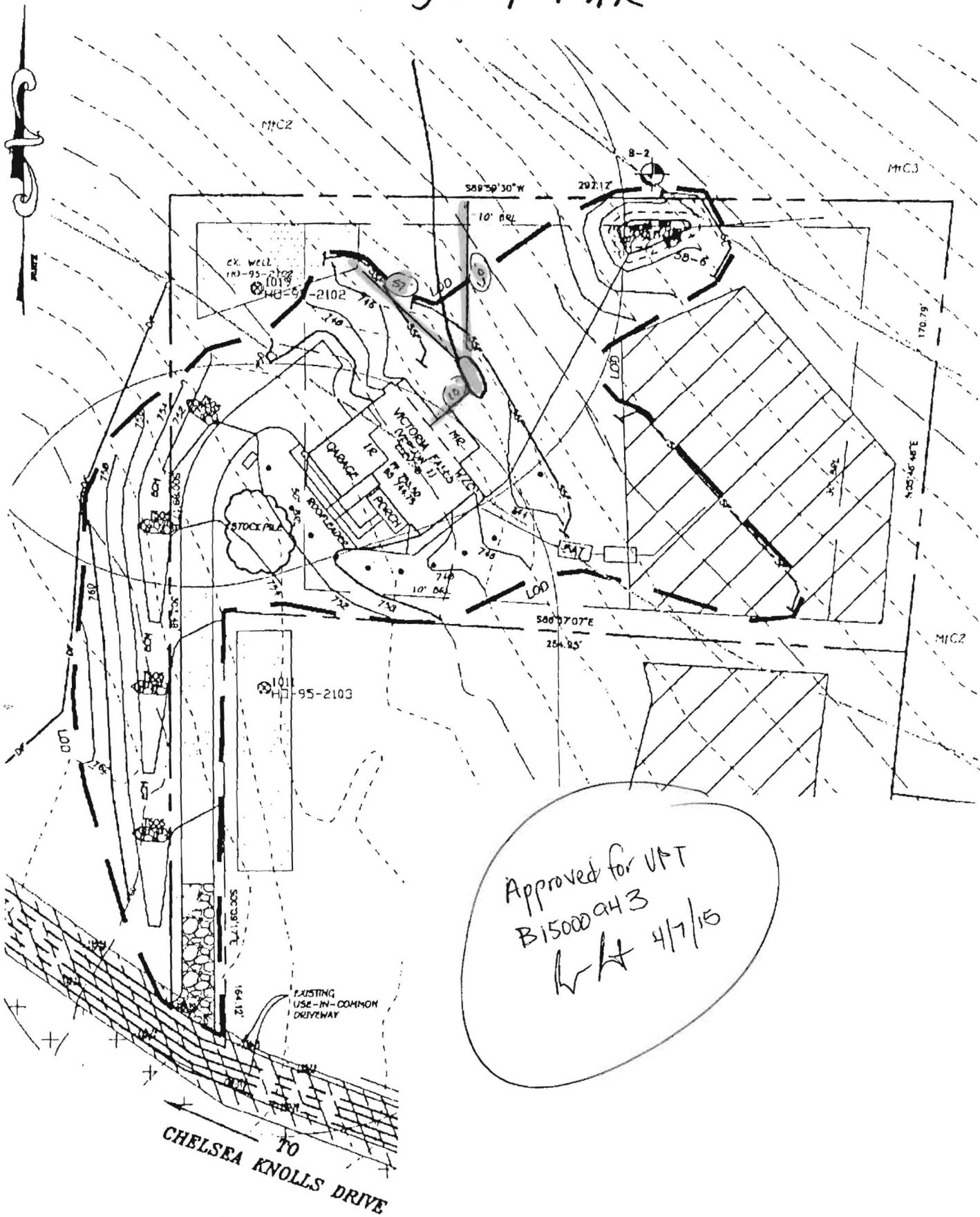
AGENCY	DATE	SIGNATURE OF APPROVAL
State Highways		
Building Officials		
PSZA (Zoning)		
PSZA (Engineering)		
Health	<u>4/7/15</u>	<u>[Signature]</u>

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	\$ 100.00
Permit Fee	\$ <u>100.00</u>
Tech Fee	\$ <u>10.00</u>
Excise Tax	\$
PSFS	\$
Guaranty Fund	\$
Add'l per Fee	\$
Total Fees	\$ <u>110.00</u>
Sub-Total Paid	\$
Balance Due	\$
Check	# <u>4124</u>

1000 gal LP Tank



Approved for VAT
 B15000 043
 h/h 4/7/15

TO
 CHELSEA KNOLLS DRIVE

OWNER

CHELSEA KNOLLS, LC
 1395 BEVERLY RD. SUITE 210
 McLEAN, VIRGINIA 22101
 (703) 734-9730
 (301) 720-3021

DEVELOPER

RYAN HOMES, INC.
 ATTY: KEVIN BOWSER
 9720 PATUXENT WOODS DRIVE
 COLUMBIA, MARYLAND 21046
 410-796-0980

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTENNIAL SQUARE OFFICE PARK - 10272 BALTHAZAR NATIONAL PIKE
 ELLESMITH CITY, MARYLAND 21047
 (410) 461-8993

**PERMIT PLAN
 CHELSEA KNOLLS**

LOT 7
 18361 10000 CHELSEA KNOLLS DRIVE

ZONING: RC-050
 TAX MAP No. 12 GRID No. 5 PARCEL No. 78
 FOURTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: 1" = 30'
 DATE: DECEMBER, 2014

Permits: 410-313-2455
 Inspections: 410-313-1810
 Automated Line: 410-313-3800

Howard County Building/Fire Permit Application
 Department of Inspections, Licenses & Permits
 3430 Court House Drive
 Ellicott City, MD 21043

Permit Number:

B15000015

Building Address: ¹⁸³⁶¹ ~~18360~~ Chelsea Knolls Drive
 Mt. Airy MD 21771
 Suite/Apt. # _____ SDP/WP/BA #: GP-15-034
 Census Tract: _____ Subdivision: Chelsea Knolls
 Section: _____ Area: _____ Lot: 7
 Tax Map: 12 Parcel: 78 Grid: 5
 Zoning: RC-DEO Map Coordinates: _____ Lot Size: _____

Existing Use: Vacant Lot
 Proposed Use: New - Single Family
 Estimated Construction Cost: \$250,000
 Description of Work: Model Victoria Falls with MR and 4' Ext
2 story full basement
10R, 2FB, 1HB and Garage (4 bdrm) opt-FP
and deck

Occupant or Tenant: Ryan Homes
 Was tenant space previously occupied? Yes No
 Contact Name: Daren Snyder
 Address: 9720 Patuxent Woods Drive
 City: Columbia State: MD Zip Code: 21046
 Phone: 410.796.0980 Fax: _____
 Email: dsnyder@nvrinc.com

Property Owner's Name: Ryan Homes
 Address: 9720 Patuxent Woods Drive
 City: Columbia State: MD Zip Code: 21046
 Home Phone: _____ Work Phone: 410.796.0980
 Applicant's Name & Mailing Address, (if other, than stated herein):

 Phone: _____ Fax: _____
 Email: _____

Contractor Company: Ryan Homes
 Contact Person: Daren Snyder
 Address: 9720 Patuxent Woods Drive
 City: Columbia State: MD Zip Code: 21046
 License No.: 56
 Phone: 410.796.0980 Fax: 410.796.7094
 Email: dsnyder@nvrinc.com

Engineer/Architect Company: Fisher, Collins, & Carter
 Responsible Design Prof.: Stephanie Tuite
 Address: 10272 Baltimore National Pike
 City: Ellicott City State: MD Zip Code: 21042
 Phone: 410.461.2855 Fax: _____
 Email: _____

BUILDING DESCRIPTION - COMMERCIAL

Building Characteristics	Utilities
Height: _____	Water Supply
No. of stories: _____	<input type="checkbox"/> Public
Gross area, sq. ft./floor: _____	<input type="checkbox"/> Private
	Sewage Disposal
Area of construction (sq. ft.): _____	<input type="checkbox"/> Public
	<input type="checkbox"/> Private
Use group: _____	Electric: <input type="checkbox"/> Yes <input type="checkbox"/> No
	Gas: <input type="checkbox"/> Yes <input type="checkbox"/> No
	Heating System
Construction type:	<input type="checkbox"/> Electric <input type="checkbox"/> Oil
<input type="checkbox"/> Reinforced Concrete	<input type="checkbox"/> Natural Gas <input type="checkbox"/> Propane Gas
<input type="checkbox"/> Structural Steel	
<input type="checkbox"/> Masonry	Sprinkler System:
<input type="checkbox"/> Wood Frame	<input type="checkbox"/> N/A
<input type="checkbox"/> State Certified Modular	<input type="checkbox"/> Full
Roadside Tree Project Permit	<input type="checkbox"/> Partial
<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Other Suppression
Roadside Tree Project Permit#	No. of Heads: _____

BUILDING DESCRIPTION - RESIDENTIAL

Building Characteristics	Utilities
<input checked="" type="checkbox"/> SF Dwelling <input type="checkbox"/> SF Townhse	Water Supply
Depth Width	<input type="checkbox"/> Public
1 st floor: 52 50	<input checked="" type="checkbox"/> Private
2 nd floor: 29 50	Sewage Disposal
Basement: 52 50	<input type="checkbox"/> Public
<input type="checkbox"/> Finished Basement	<input checked="" type="checkbox"/> Private
<input checked="" type="checkbox"/> Unfinished Basement	Electric: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Crawl Space	Gas: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Slab on Grade	Heating System
No. of Bedrooms: 5	<input type="checkbox"/> Electric
Multi-family Dwelling	<input type="checkbox"/> Oil
No. of efficiency units: _____	<input type="checkbox"/> Natural Gas
No. of 1 BR units: _____	<input checked="" type="checkbox"/> Propane Gas
No. of 2 BR units: _____	
No. of 3 BR units: _____	
Other Structure: _____	
Dimensions: _____	
Footings: _____	Roadside Tree Project Permit:
Roof: _____	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<input type="checkbox"/> State Certified Modular	Roadside Tree Project Permit#
<input type="checkbox"/> Manufactured Home	

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[Signature]
 Applicant's Signature
 dsnyder@nvrinc.com
 Email Address

 Cost Manager
 Title/Company

Daren Snyder
 Print Name
 12/23/14
 Date
 RECEIVED
 DEC 23 2014
 LICENSES & PERMITS
 DIVISION
 G15000004

Checks Payable to: DIRECTOR OF FINANCE OF HOWARD COUNTY
 PLEASE WRITE NEATLY & LEGIBLY

-FOR OFFICE USE ONLY-

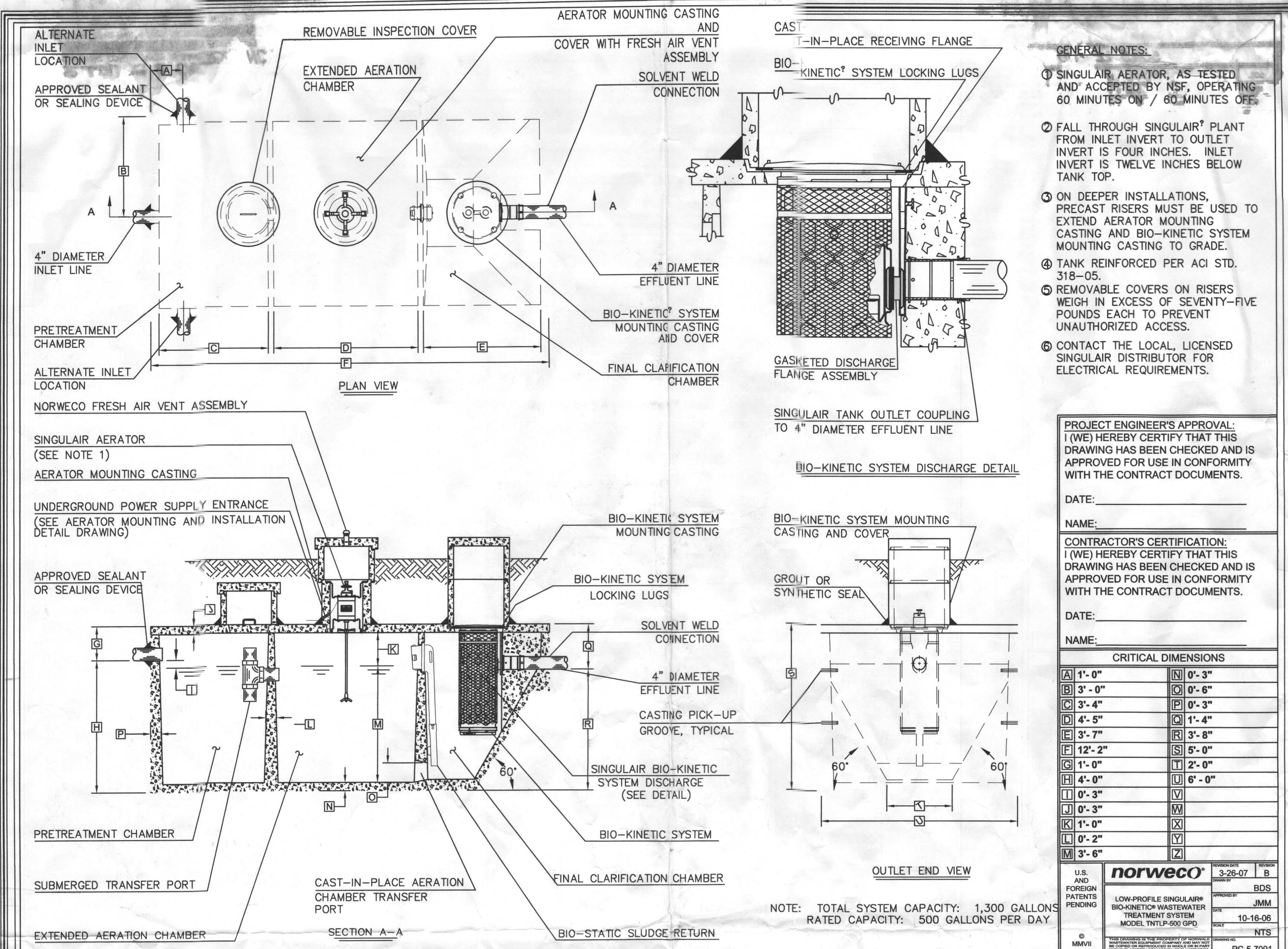
AGENCY	DATE	SIGNATURE OF APPROVAL
<input checked="" type="checkbox"/> State Highways		
<input checked="" type="checkbox"/> Building Officials		
<input checked="" type="checkbox"/> PSZA (Zoning)		
<input checked="" type="checkbox"/> PSZA (Engineering)		
<input checked="" type="checkbox"/> Health	2/12/15	PSZAs
<input checked="" type="checkbox"/> Fire Protection		

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

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	\$ 100.00
Permit Fee	\$
Tech Fee	\$
Excise Tax	\$
PSFS	\$
Guaranty Fund	\$ 50.00
Add'l per Fee	\$
Total Fees	\$
Sub-Total Paid	\$
Balance Due	\$

CK# 815419/418

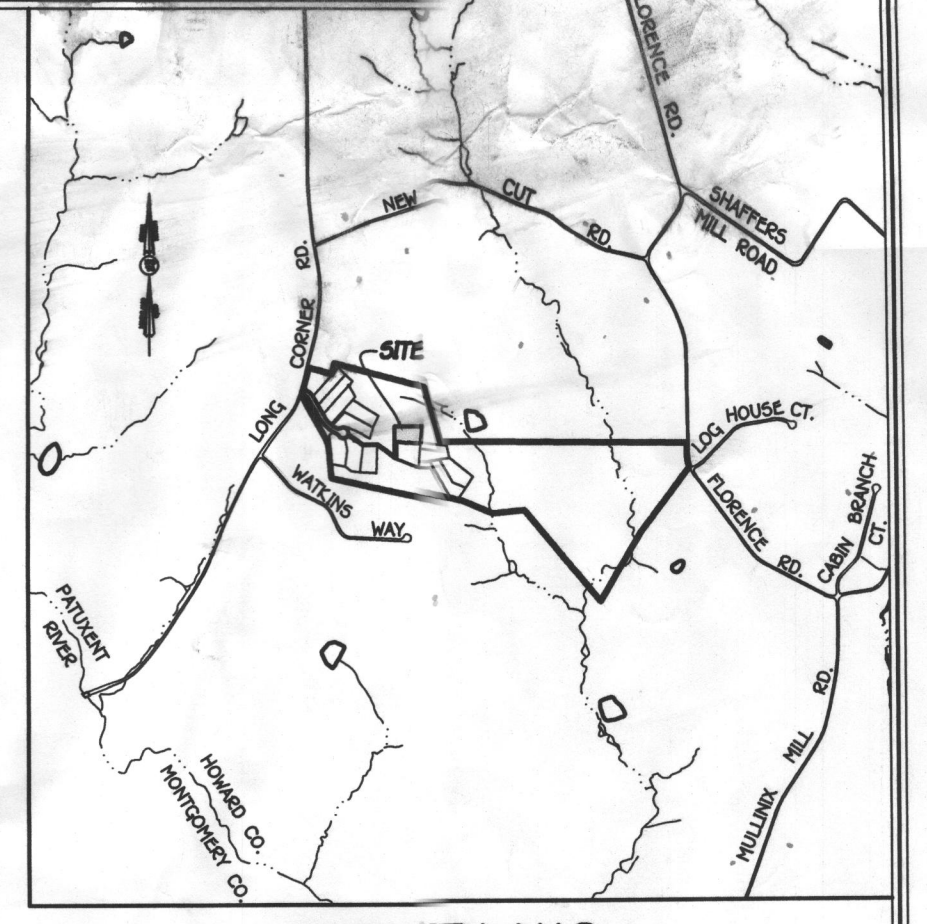


SOILS LEGEND

SOIL	DEPTH	NAME	CLASS
M1C	Mt. Air clayey loam, 3 to 8 percent slopes, moderately eroded		A
M1C2	Mt. Air clayey loam, 8 to 15 percent slopes, moderately eroded		A

LEGEND

SYMBOL	DESCRIPTION
---	EXISTING CONTOUR 2' INTERVAL
- - - -	PROPOSED CONTOUR 2' INTERVAL
x362.5	SPOT ELEVATION
IP	INLET PROTECTION
-SS-SS-	SUPER SILT FENCE
---	PROPOSED WALKOUT
LOD	LIMITS OF DISTURBANCE
○	EXISTING STREET TREES FROM F-12-072
○	EXISTING PERIMETER TREES FROM F-12-072



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 COVER OVER THE BAT SHALL BE 3 FEET.
- 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.
- 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, LIBER 15065, FOLIO 077.
- THE HEALTH DEPARTMENT REQUIRES DOCUMENTATION FOR THE START-UP CERTIFICATION FROM THE MANUFACTURER PRIOR TO FINAL APPROVAL OF THE INSTALLATION.
- SURFACE RUNOFF SHALL BE DIRECTED AROUND THE BAT TANK.

SEPTIC SYSTEM ELEVATIONS
 FFE = 753.50
 BSE = 744.75
 INV. OUT OF HOUSE = 741.49
 EX. GROUND AT BAT TANK = 744.0
 TOP OF BAT TANK = 741.00
 COVER OVER BAT TANK = 3 FT
 INVERT INTO BAT TANK = 739.84
 INVERT OUT OF BAT TANK = 739.51
 INVERT INTO PUMP TANK = 739.26
 INVERT OUT OF PUMP TANK = 740.42

SEPTIC SYSTEM DESIGN
 4 BEDROOM HOUSE
 LOADING RATE = 500 GPD
 APPLICATION RATE = 0.8
 EFFECTIVE SIDEWALL BEGINS AT 3.5 FEET
 TRENCH DEPTH = 6.5 FEET
 TRENCH WIDTH (W) = 3 FEET
 EFFECTIVE DEPTH (D) = 3 FEET
 SF OF DRAINFIELD = 600 GPD / 0.8 = 750 SF
 COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D) = (3+2)/(3+1+(2*3)) = 0.50
 TRENCH LENGTH = 750 SF x 0.50 / 3 = 125 FEET

LOW PRESSURE DOSING SYSTEM - INITIAL INSTALLATION

TRENCH	GROUND ELEV.	PIPE INVERT ELEV.	TRENCH LENGTH (FT)	LATERAL PIPE LENGTH (FT)	PERFORATION DIAMETER (IN)	HEAD (FT)	PERFORATION FLOW RATE (GPM)	PERFORATION SPACING (FT)	NUMBER OF PERFORATIONS	TRENCH FLOW RATE
1A	740.0	736.5	42	39.9	5/16	2	1.63	4.2	10	16.3
1B1	738.7	735.2	42	36.75	5/16	3.3	2.09	5.25	8	16.7
1B2	738.7	735.2	42	36.75	5/16	3.3	2.09	5.25	8	16.7
TOTAL TRENCH FLOW RATE										49.7

TRENCH DESIGN

TRENCH	GROUND ELEV.	TOP OF STONE ELEV.	PIPE INVERT ELEV.	DEPTH TO STONE FROM GROUND	DEPTH OF STONE (FT)	BOTTOM OF TRENCH ELEV.	EFFECTIVE DEPTH AT	EFFECTIVE DEPTH (D)	WIDTH OF TRENCHES (W)	TRENCH SPACING
1A	740.0	737.0	736.5	3.0	3.5	733.5	3.5	3.0	3.0	11
1B1	738.7	735.7	735.2	3.0	3.5	732.2	3.5	3.0	3.0	11
1B2	738.7	735.7	735.2	3.0	3.5	732.2	3.5	3.0	3.0	11
RT2A1	737	734.0	733.5	3.0	3.5	730.5	3.5	3.0	3.0	11
RT2A2	737	734.0	733.5	3.0	3.5	730.5	3.5	3.0	3.0	11
RT2B	735.5	732.5	732.0	3.0	3.5	729.0	3.5	3.0	3.0	11

FRICION LOSS IN 2" PIPE FITTINGS:

- 1/8 HB x 4 FEET PER FITTING = 4 EQUIVALENT FEET OF PIPE
- TEE/CROSS x 11 FEET PER FITTING = 22 EQUIVALENT FEET OF PIPE
- UNION x 2 FEET PER FITTING = 2 EQUIVALENT FEET OF PIPE
- ELBOWS x 9 FEET PER FITTING = 27 EQUIVALENT FEET OF PIPE

TOTAL EQUIVALENT FEET OF PIPE = 55 FT

TOTAL LINEAR FEET OF 2" SCH. 40 PVC = 33 LF + 55 LF = 88 LF

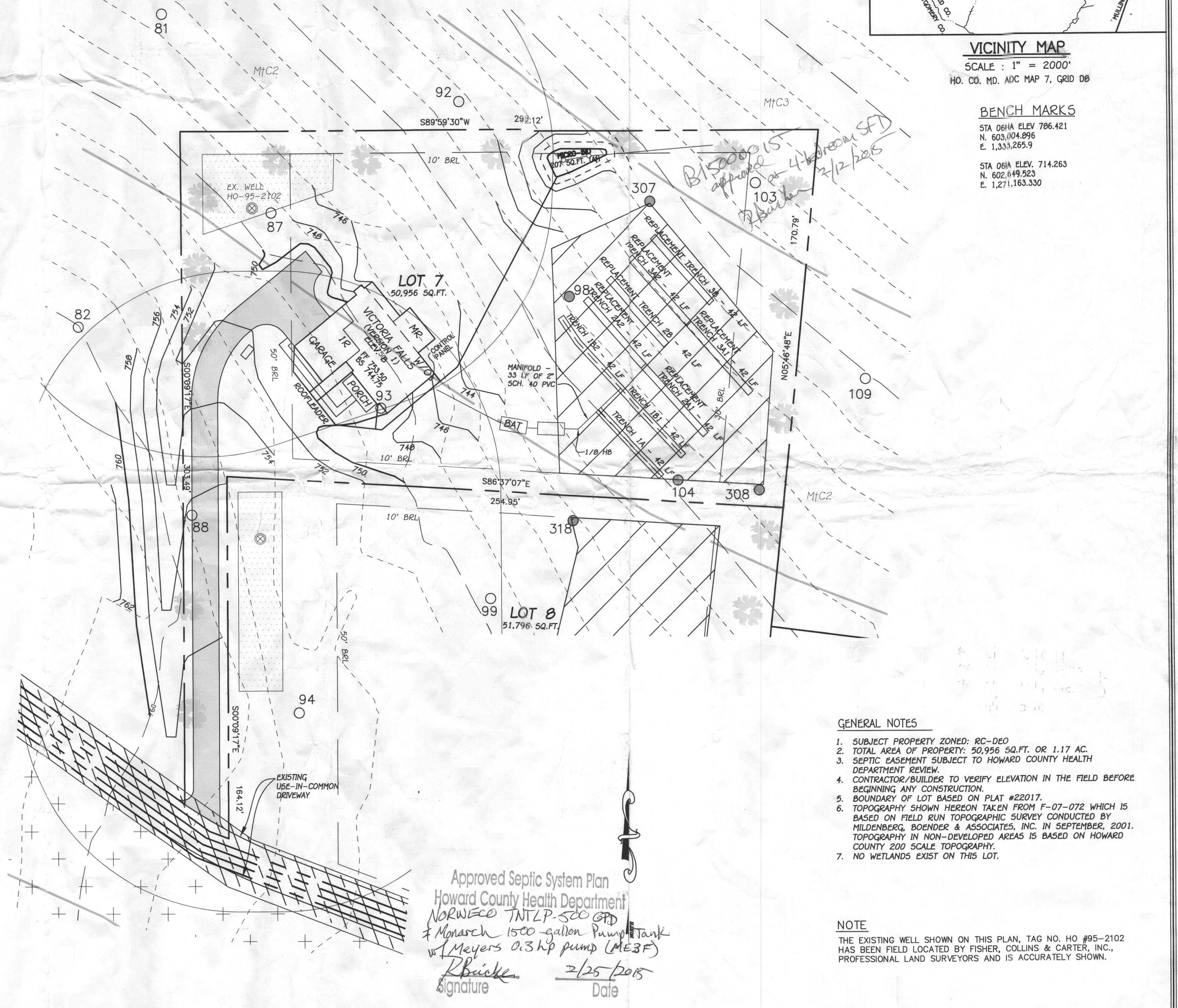
DYNAMIC HEAD
 88 LF x 3.98 FT PER 100 LF OF PIPE = 3.5 FT OF FRICTION HEAD
 DISTAL HEAD = 2.0 FT
 VERTICAL FROM TANK TO DISCHARGE = 6.08 FT OF FRICTION HEAD
 TOTAL DYNAMIC HEAD = 11.58 FT (USE 12 FT)

PIPE VOLUMES
 33 LF (2" SCH. 40 PVC PIPE) X 17.4 GALLONS PER 100 LF = 5.7 GALLONS
 111 LF (1.5" SCH. 40 PVC PIPE) X 10.6 GALLONS PER 100 LF = 11.8 GALLONS

MINIMUM DOSE
 MINIMUM DOSE = (5 X LATERAL PIPE VOLUME) + (FORCE MAIN + MANIFOLD)
 = (5 X 11.8) + (5.7)
 = 64.7 GALLONS

64.7 GALLONS IS LESS THAN 1/6 DESIGN FLOW (600/6=100)
 USE 150 GALLON DOSE (100 GALLON MINIMUM)
 (RUN TIME = 3 MIN (50 X 3 = 150 GALLON DOSE))

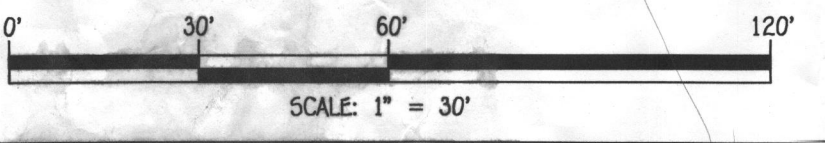
PUMP NEEDS TO HANDLE 50 GPM AT 12 FT OF HEAD
 PUMP HORSEPOWER ESTIMATED AT 0.3 HP (MINIMUM) - USE 0.3 HP



PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 38386, EXPIRATION DATE: 01/12/2016.
 Signature: *Stephanie Lute* 2/3/15
 DATE: _____
 Signature Of Professional Engineer

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 10272 BALFOUR NATIONAL PIKE
 ELICOTT CITY, MARYLAND 21041
 (410) 461-7000

STATE OF MARYLAND
 STEPHANIE L. LUTE
 PROFESSIONAL ENGINEER
 LICENSE NO. 38386
 EXPIRES 01/12/2016



PLAN VIEW
 SCALE: 1" = 30'

OWNER
 CHELSEA KNOLLS, LC
 1355 BEVERLY RD, SUITE 240
 MCLEAN, VIRGINIA 22101
 (703) 734-9730
 (301) 720-3021

DEVELOPER
 RYAN HOMES, INC.
 ATTN: KEVIN BOWSER
 9720 PATUXENT WOODS DRIVE
 COLUMBIA, MARYLAND 21046
 410-798-0980

BAT SITE PLAN
CHELSEA KNOLLS
 LOT 7
 18360 CHELSEA KNOLLS DRIVE
 ZONING: RC-DEO
 TAX MAP NO. 12 GRID NO. 5 PARCEL NO. 78
 FOURTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 DATE: FEBRUARY, 2015
 SHEET 1 OF 2