NOT PUBLISHED: ALL RIGHTS RESERVED

Drawings and specifications as instruments of service are and shall remain the property of the Architect and/or Engineer whether the project for which they are made is executed or not. They are not to be used by the client or others on other projects or extensions to this project except by agreement in writing.

Any changes or deviation from these plans by the Owner, Contractor or Builder shall release the Architect and/or Engineer from any and all liability relating thereof unless such change has been approved by the Architect and/or Engineer in writing.

This drawing does not include necessary components for construction safety. In stage construction shoring, or temporary bracing. All construction must be done in compliance with the Occupational Safety and Health Act of 1970 and all rules and regulations thereof appurtenant.

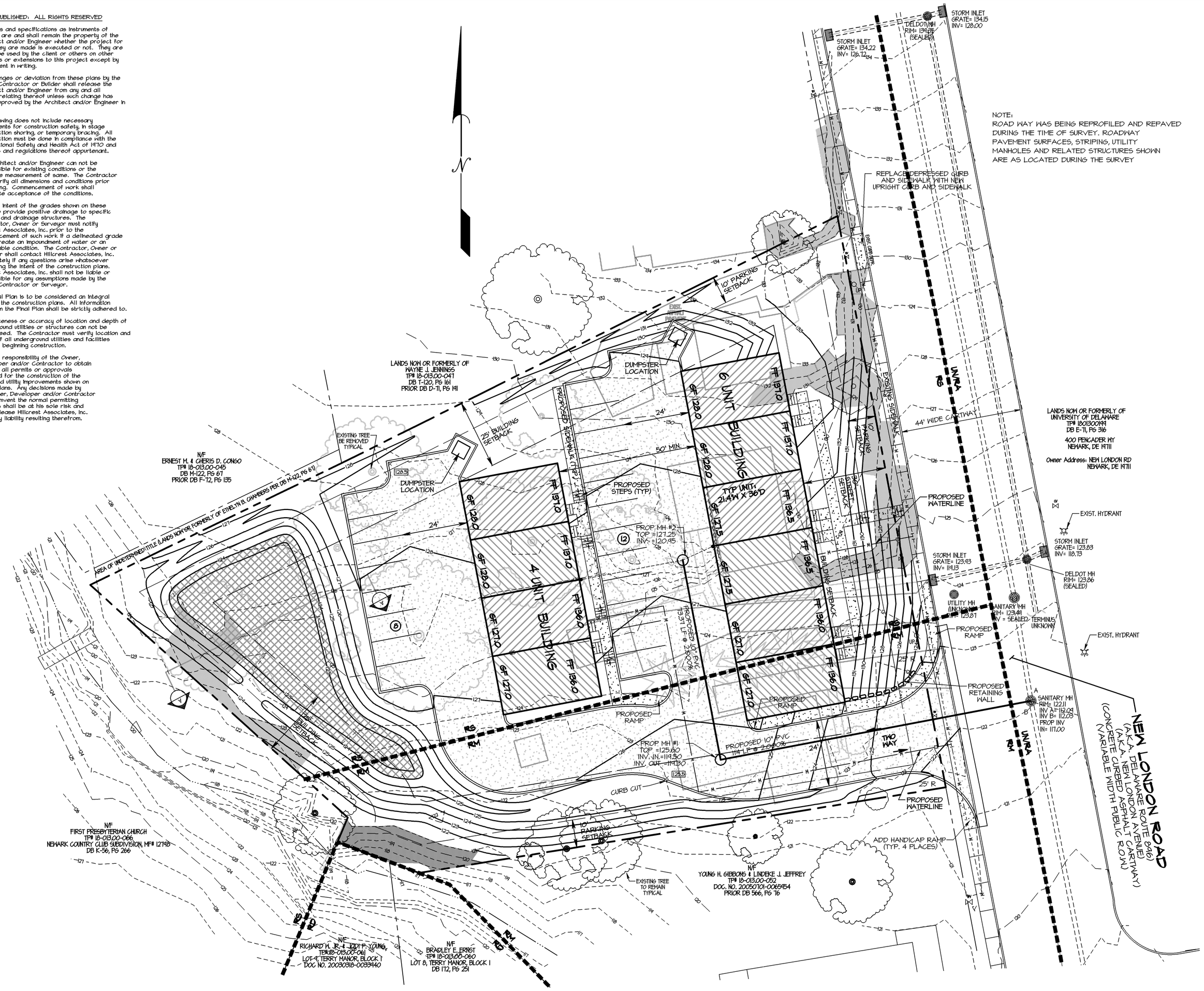
The Architect and/or Engineer can not be responsible for existing conditions or the accurate measurement of same. The Contractor shall verify all dimensions and conditions prior to bidding. Commencement of work shall constitute acceptance of the conditions.

It is the intent of the grades shown on these plans to provide positive drainage to specific outfalls and drainage structures. The Contractor, Owner or Surveyor must notify Hillcrest Associates, Inc. prior to the commencement of such work if a delineated grade would create an impondment of water or an undesirable condition. The Contractor, Owner or Surveyor shall contact Hillcrest Associates, Inc. immediately if any questions arise whatsoever regarding the intent of the construction plans. Hillcrest Associates, Inc. shall not be liable or responsible for any assumptions made by the Owner, Contractor or Surveyor.

The Final Plan is to be considered an integral part of the construction plans. All information shown on the Final Plan shall be strictly adhered to.

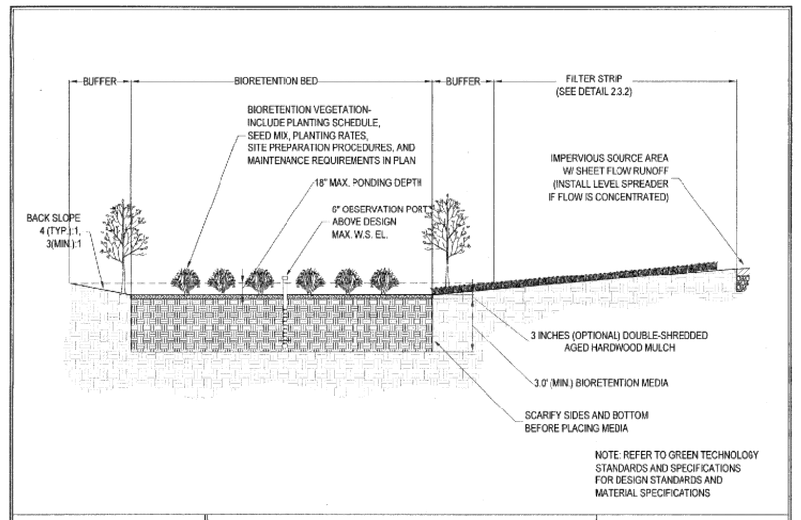
Completeness or accuracy of location and depth of underground utilities or structures can not be guaranteed. The Contractor must verify location and depth of all underground utilities and facilities prior to beginning construction.

It is the responsibility of the Owner, Developer and/or Contractor to obtain any and all permits or approvals required for the construction of the road and utility improvements shown on these plans. Any decisions made by the Owner, Developer and/or Contractor to circumvent the normal permitting process shall be at his sole risk and shall release Hillcrest Associates, Inc. from any liability resulting therefrom.

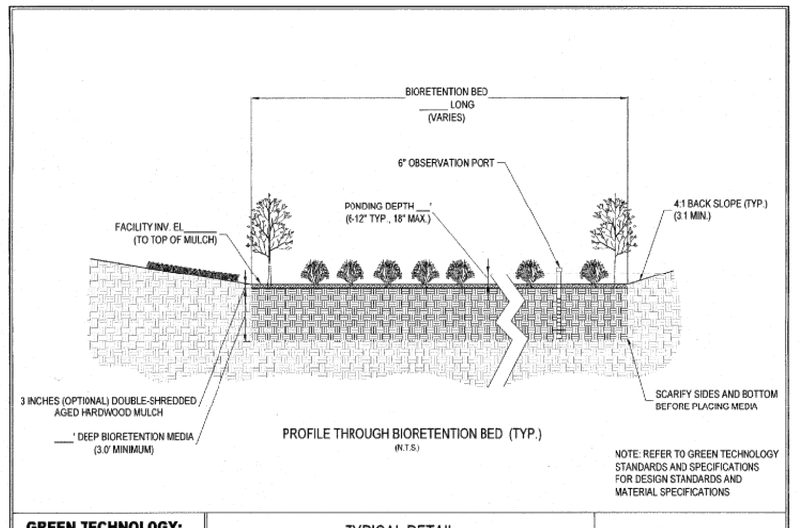


LEGEND

EXISTING CONTOUR	470
PROPOSED CONTOUR	470
EXISTING SPOT GRADE	× 473.5
PROPOSED SPOT GRADE	× 473.5
EXISTING CATCH BASIN W/PIPE	
PROPOSED CATCH BASIN W/PIPE	
PROPOSED FLARED END SECTION W/ROP	
EXISTING SANITARY SEWER	
PROPOSED SANITARY SEWER	
PROPOSED SANITARY SEWER LATERAL	
EXISTING UNDERGROUND GAS LINE	G G
EXISTING WATERLINE	W W W
PROPOSED WATERLINE	W W W
EXISTING FIRE HYDRANT	
EXISTING WATER VALVE	
CURB STOP FOR WATERLINE	
UTILITY POLE	

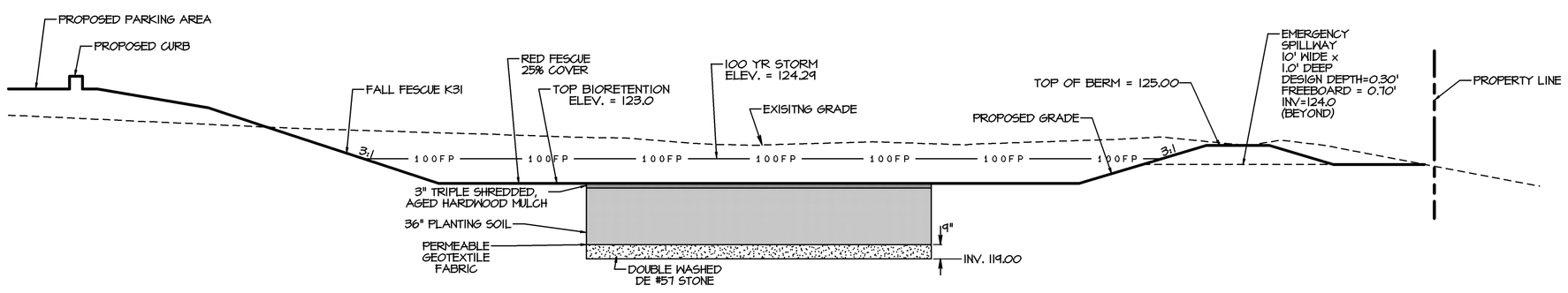


GREEN TECHNOLOGY: THE DELAWARE URBAN RUNOFF MANAGEMENT APPROACH	TYPICAL DETAIL STANDARD BIORETENTION FACILITY (N.T.S)	DETAIL NUMBER: 2.5.1 DATE: JUNE 2005



PROFILE THROUGH BIORETENTION BED (TYP.)
(N.T.S.)

GREEN TECHNOLOGY: THE DELAWARE URBAN RUNOFF MANAGEMENT APPROACH	TYPICAL DETAIL STANDARD BIORETENTION FACILITY PROFILE	DETAIL NUMBER: 2.5.2 DATE: JUNE 2005



NOTE: PLANTING SOIL IS TO BE A UNIFORM MIX OF MULCH (SAME MATERIAL AS TOP LAYER), SAND (ASTM C-33 WITH GRAIN SIZE 0.02" - 0.25") AND PEAT MOSS. BIO-SOIL MIX IS TO BE PROVIDED FROM AN APPROVED DNREC SUPPLIER WITH CERTIFICATION TICKETS FURNISHED TO THE CITY.

SECTION A-A THRU BIORETENTION FACILITY

SCALE: 1" = 5'-0"

COVERAGE CALCULATIONS (ACRES)	
	LOT
BUILDING LOT COVER	0.171
OTHER IMPERVIOUS SURFACE COVER	0.315
TOTAL IMPERV. SURFACE	0.412
OPEN AREA	0.480
TOTAL LOT AREA	0.892

Plan by:
Hillcrest Assoc.
P.O. Box 1180
Hockessin, DE 19707
(610) 274-8613
fax (610) 274-0561

0 5 10 20 40 60
GRAPHIC SCALE

BEFORE YOU DIG
ANYWHERE IN *DELAWARE*
STOP CALL 1-800-282-8555
OUTSIDE DELAWARE CALL 1-800-441-8355
REQUIRES 3 WORKING DAYS NOTICE BEFORE YOU EXCAVATE
MISS UTILITY OF DELMARVA

CIVIL ENGINEERING
SURVEYING • ARCHITECTURE
LAND PLANNING • SITE ANALYSIS
LANDSCAPE ARCHITECTURE
ENVIRONMENTAL SCIENCE
LAND INVESTMENT CONSULTATION
HILLCREST ASSOCIATES INC

STORMWATER MANAGEMENT PLAN
NORTH CAMPUS COMMONS
CITY OF NEWARK
NEW CASTLE COUNTY, DELAWARE

DATE	REVISION

DATE: 11-20-06
DRAWN BY: DHR
CHECKD. BY: RML
PROJ. NO.: 2534
SCALE: 1"=20'
CAD FILE NAME: 2534BD.PRO

DWG. NO.
2 OF 3