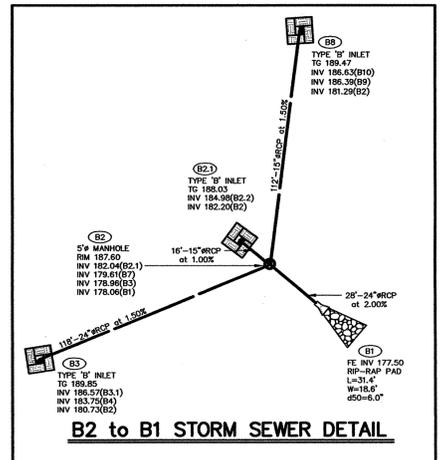


**CONSERVATION EASEMENT (6,388 S.F.) (0.15 ACRES±)**  
**ISOLATED WETLANDS**  
 NOTE: ALL ACCUMULATED SEDIMENT WITHIN THE DETENTION BASIN MUST BE REMOVED UPON COMPLETE SITE STABILIZATION.  
 BQ  
 Q=20.77 cfs  
 V=8.58 fps  
 Tw=4.69' (2 yr. storm)

**ISOLATED WETLANDS**  
 GENERAL PERMIT # 01-29-2004  
 DISTURBED WETLANDS AREA = 0.03 ACRES  
 FILE #108-02-0033.1 (020002 SGP #8)

**INLET PROTECTION (TYP.)**  
 CROSS-SECTION A-A



**STONE CONSTRUCTION ACCESS (TYP.)**  
 BLOCK 78.03 LOT 7  
 NOTE: ALL SEDIMENT WASHED, TRACKED, OR SPILLED ONTO PAVED SURFACES SHALL BE REMOVED IMMEDIATELY.

**TEMPORARY TOPSOIL STOCKPILE (TYP.)**  
 NOTE: IMMEDIATE TEMPORARY SEEDING AND STABILIZATION OF THE STOCKPILE.

**LIMIT OF DISTURBANCE (TYP.)**

**SILT FENCE (TYP.)**

**EROSION MATTING TO BE INSTALLED IN THE DETENTION BASIN**

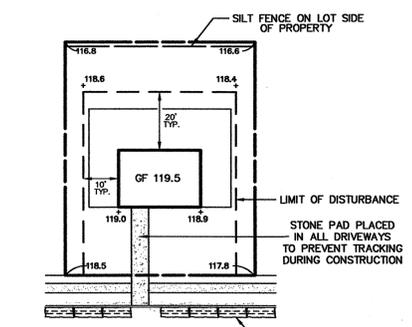
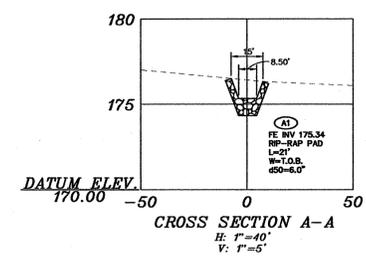
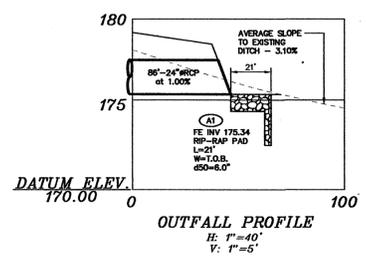
**IF AN EROSION CONCERN ARISES BELOW THE BASIN DISCHARGE LOCATION, THE AREA SHALL BE STABILIZED AS DIRECTED BY THE MSCD.**

**SANITARY SEWER DESIGN - N.A.A.C. 7-10-11.106.6**  
 ALL WATER MAINS AND SANITARY SEWER LINES SHALL BE SEPARATED BY A HORIZONTAL DISTANCE OF 10 FEET. IF SUCH LATERAL SEPARATION IS NOT POSSIBLE, THE WATER MAIN AND SEWER LINES SHALL BE IN SEPARATE TRENCHES (SEE TRENCHES ARE PROHIBITED) WITH THE TOP OF THE SEWER LINE AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN OR WITH SUCH OTHER SEPARATION EXPRESSLY APPROVED BY THE DEPARTMENT. AT CROSSINGS OF SEWER LINES AND WATER MAINS, THE TOP OF THE SEWER LINES SHALL BE AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN (SEWER SEWER LATERALS ARE NOT SUBJECT TO THIS REQUIREMENT). IF SUCH VERTICAL SEPARATION IS NOT POSSIBLE, THE SEWER LINE SHALL BE OF WATER-TIGHT CONSTRUCTION (I.E. DUCTILE IRON OR REINFORCED CONCRETE PIPE), WITH WATER-TIGHT JOINTS THAT ARE A MINIMUM OF 10 FEET FROM THE WATER MAIN.

**SITE ELEVATION DATUM IS IN NAVD 88. SITE ELEVATION DATUM + 1-FOOT = NGVD 29 ELEVATION.**

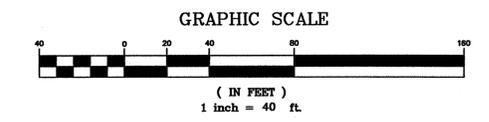
**STANDARD FOR TOPSOILING**

- Topsoil shall be used where soils are to be disturbed and will be revegetated.
- Materials**
    - Topsoil should be friable, loamy, free of debris, objectionable weeds and stones, and contain no toxic substance or adverse chemical or physical condition that may be harmful to plant growth. Soluble salts should not be excessive. Conductivity must be less than 0.5 millimhos per centimeter. More than 0.5 millimhos may desiccate seedlings and adversely impact growth. Topsoil hauled in from offsite should have a minimum organic matter content of 2.75 percent. Organic matter content may be raised by additives.
    - Topsoil substitute is a soil material which may have been amended with sand, silt, clay, organic matter, fertilizer or lime and has the appearance of topsoil. Topsoil substitutes may be utilized on sites with insufficient topsoil for establishing permanent vegetation. All topsoil substitute materials shall meet the requirements of topsoil noted above. Soil tests shall be performed to determine the components of sand, silt, clay, organic matter, soluble salts and pH level.
  - Stripping and Stockpiling**
    - Field exploration should be made to determine whether quantity and or quality of surface soil justifies stripping.
    - Stripping should be confined to the immediate construction area.
    - Where feasible, lime may be applied before stripping at a rate determined by soil tests to bring the soil pH to approximately 6.5. In lieu of soil tests, see lime rate guide in seedbed preparation for Permanent Vegetative Cover for Soil Stabilization.
    - A 4-6 inch stripping depth is common, but may vary depending on the particular soil.
    - Stockpiles of topsoil should be situated so as not to obstruct natural drainage or cause off site environmental damage.
    - Stockpiles should be vegetated in accordance with standards previously described herein see standards for Permanent or Temporary Vegetative Cover for Soil Stabilization. Weeds should not be allowed to grow on stockpiles.
  - Site Preparation**
    - Grade at the onset of the optimal seeding period so as to minimize the duration and area of exposure of disturbed soil to erosion. Immediately proceed to establish vegetative cover in accordance with the specified seed mixture. Time is of the essence.
    - Grade as needed and feasible to permit the use of conventional equipment for seedbed preparation, seeding, mulch application and anchoring, and maintenance.
    - As guidance for ideal conditions, subsoil should be tested for lime requirement. Limestone, if needed, should be applied to bring soil to a pH of approximately 6.5 and incorporated into the soil as nearly as practical to a depth of 4 inches.
    - Immediately prior to topsoiling the surface should be scarified 6" to 12" where there has been soil compaction. This will help insure a good bond between the topsoil and subsoil. This practice is permissible only where there is no danger to underground utilities (cables, irrigation systems, etc.).
    - Employ needed erosion control practices such as diversions, grade stabilization structures, channel stabilization measures, sedimentation basins, and waterways.
  - Applying Topsoil**
    - Topsoil should be handled only when it is dry enough to work without damaging soil structure.
    - A uniform application to a depth of 6 inches (unsettled) is recommended. Soils with a pH of 4.0 or less or containing iron sulfide shall be covered with a minimum depth of 12 inches of soil having a pH of 5.0 or more, in accordance with the Standard for Management of High Acid Producing Soil.



**TYPICAL DETAIL OF SOIL EROSION AND SEDIMENT CONTROL LOT**  
 N.T.S.

- SOIL EROSION NOTES:**
- TEMPORARY STABILIZATION - ALL EXPOSED AREAS NOT TO BE CONSTRUCTED UPON WITHIN 30 DAYS SHALL RECEIVE TEMPORARY STABILIZATION (SEE SEEDING SPECIFICATION FOR SEEDING MIXTURES AND RATES).
  - PERMANENT STABILIZATION - ALL EXPOSED AREAS WHICH ARE TO BE PERMANENTLY VEGETATED SHALL BE SEEDING WITHIN 10 DAYS OF FINAL GRADING (SEE SEEDING SPECIFICATION FOR SEEDING MIXTURES AND RATES).
  - WRITTEN NOTIFICATION - THE TOWNSHIP ENGINEER SHALL BE PROVIDED WITH WRITTEN NOTIFICATION 48 HOURS PRIOR TO THE START OF ANY LAND DISTURBANCE.
  - DURING LAND DISTURBANCE ACTIVITIES AND DURING CONSTRUCTION, ANY ADDITIONAL CONTROL MEASURES AS DEEMED NECESSARY TO PREVENT EROSION AND CONTROL OF SEDIMENT BEYOND THOSE SHOWN ON THE APPROVED PLANS SHALL BE INSTALLED AS DIRECTED BY THE TOWNSHIP ENGINEER.
  - AFTER CONSTRUCTION, THE OWNER SHALL MAINTAIN ALL PERMANENT SOIL EROSION AND SEDIMENT CONTROL MEASURES UNTIL THE ENTIRE SITE IS STABILIZED.
  - CONTROL MEASURES SHALL APPLY TO DWELLING CONSTRUCTION ON INDIVIDUAL LOTS AND SUCH CONTROL MEASURES SHALL APPLY TO SUBSEQUENT OWNERS IF TITLE IS CONVEYED.
  - STEEP SLOPES - ANY CUT OR FILL SLOPES STEEPER THAN 3:1 SHALL BE STABILIZED (SEEDED AND MULCHED) IMMEDIATELY AFTER GRADING.
  - WATERWAYS SHALL BE IMMEDIATELY STABILIZED AFTER CONSTRUCTION.



**MENLO ENGINEERING ASSOCIATES, INC.**  
 CIVIL ENGINEERS, LAND SURVEYORS AND PROFESSIONAL PLANNERS  
 261 CLEVELAND AVENUE HIGHLAND PARK, NEW JERSEY 08904  
 PHONE: (732) 846-8585 FAX: (732) 846-9439  
 CERTIFICATE OF AUTHORIZATION: 24627951900

**BRIAR CLIFFE**  
 TOWNSHIP OF HOPEWELL MERCER COUNTY, NEW JERSEY  
 PRELIMINARY MAJOR SUBDIVISION

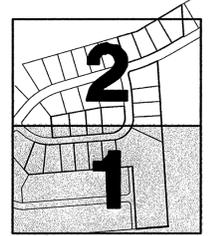
**SOIL EROSION & SEDIMENT CONTROL PLAN-1**  
 BLOCK 78.01 LOT 15, BLOCK 78.02 LOTS 6-9, BLOCK 78.03 LOTS 2-7 & BLOCK 78.05 LOT 1 TAX MAP SHEET No. 20 13.69 ACRES±

DATE OF ISSUE: JUNE 11, 2002  
 REV. 13.) FEBRUARY 15, 2013

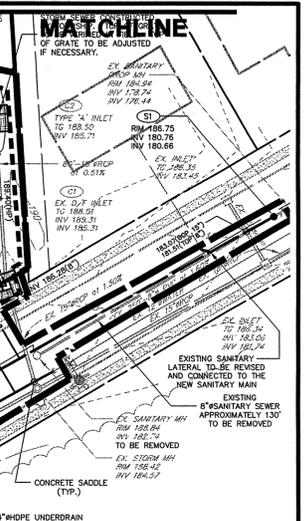
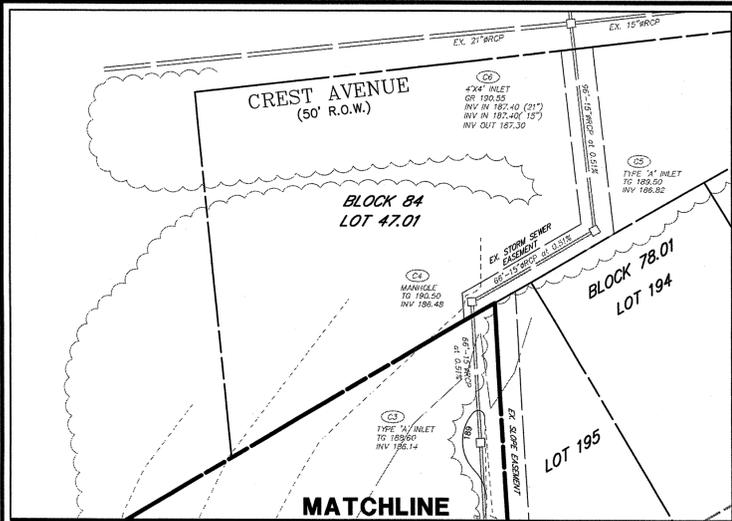
SCALE: 1"=40'  
 CAD # 20000485E1  
 JOB # 2000.048  
 DWG # SE-1

DRWN. BY RMC  
 DSGN. BY WAL  
 CHKD. BY ARC  
 APPRD. BY ARC

1.) NDEP COMMENTS	10/09/02
2.) TWP COMMENTS	11/18/02
3.) NDEP COMMENTS	01/23/04
4.) WATER/SEWER/STORM	05/05/04
5.) TWP COMMENTS	09/17/04
6.) SCS/TWP COMMENTS	11/09/04
7.) TWP COMMENTS	11/22/04
8.) TWP/SCS COMMENTS	12/14/04
9.) TWP COMMENTS	06/17/05
10.) LIMIT OF DISTURBANCE	09/30/02
11.) BLSA COMMENTS	07/20/02
12.) SCS COMMENTS	11/20/02
13.) NDEP COMMENTS	02/15/13



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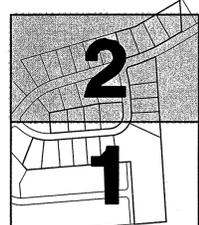
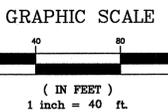


NOTE:  
TEMPORARY DRIVING SURFACES  
WITHIN BRANDON ROAD WEST  
SHALL BE 3/4" CLEAN STONE  
OR BASE PAVEMENT.

NOTE:  
IMMEDIATE TEMPORARY  
SEEDING AND  
STABILIZATION OF  
THE STOCKPILE.

NOTE:  
ALL SEDIMENT WASHED, TRACKED,  
OR SPILLED ONTO PAVED SURFACES  
SHALL BE REMOVED IMMEDIATELY.

NOTE:  
IMMEDIATE TEMPORARY  
SEEDING AND STABILIZATION  
OF THE STOCKPILE.



THIS DRAWING IS FOR PERMIT PURPOSES ONLY - NOT FOR CONSTRUCTION UNTIL THIS BOX HAS BEEN CHECKED AND DATED.  
 DATE: \_\_\_\_\_  
 CHG BY: \_\_\_\_\_

THIS WORK PREPARED UNDER MY IMMEDIATE SUPERVISION...  
 [Signature]  
 JAMES R. COCO  
 PROFESSIONAL ENGINEER  
 LAND SURVEYOR  
 NJ PE&LS#26264

**MENLO ENGINEERING ASSOCIATES, INC.**  
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**BRIAR CLIFFE**  
 TOWNSHIP OF HOPEWELL, MERCER COUNTY, NEW JERSEY  
 PRELIMINARY MAJOR SUBDIVISION

**SOIL EROSION & SEDIMENT CONTROL PLAN-2**  
 BLOCK 78.01 LOT 15, BLOCK 78.02 LOTS 6-9, BLOCK 78.03 LOTS 2-7 &  
 BLOCK 78.05 LOT 1 TAX MAP SHEET No. 20 13.69 ACRES±

DRWN. BY RMC	DATE OF ISSUE	SCALE: 1"=40'
DSGN BY WAL	JUNE 11, 2002	CAD # 20000485E1
CHKD. BY ARC	REV. 12.) FEBRUARY 15, 2013	JOB # 2000.048
APPR. BY ARC		DWG # SE-2

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