

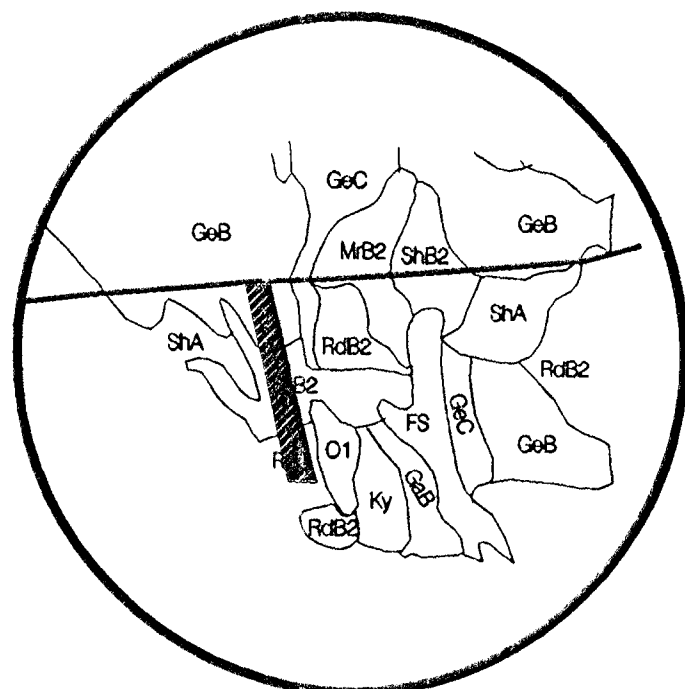
| LEGEND | |
|----------------------------------|--------|
| Existing Contour | _____ |
| Proposed Contour | _____ |
| Existing Spot Shot | 100' ± |
| Proposed Spot Shot | 100' ± |
| Existing Tree Line | _____ |
| Proposed Tree Line | _____ |
| Overhead Wire | OH |
| Limits of Disturbance | _____ |
| Silt Fence | SF |
| Stabilized Construction Entrance | SCE-2 |

OWNER / APPLICANT:
Charles J. Lucas
2735 Bellbrooks St.
Temple Hills, Md. 20748
(301) 894 - 4763

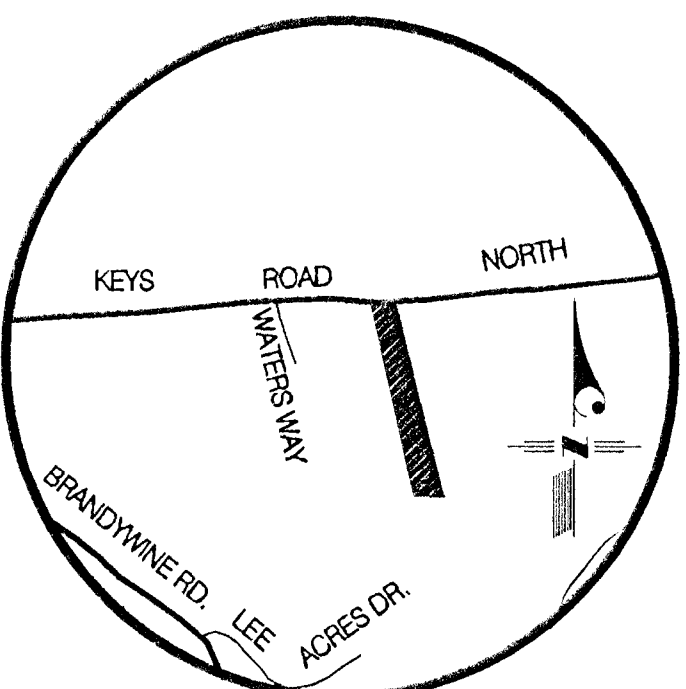
"MISS UTILITY"
FOR LOCATION OF UTILITIES CALL
1-800-285-7777 48 HOURS IN ADVANCE
OF ANY WORK IN THIS VICINITY.

SEQUENCE OF CONSTRUCTION

| | | |
|-----------------------------------|--|----------|
| 1.) | Arrange for a pre-construction meeting with the D.E.R. inspector. | 1 day |
| 2.) | Clear for and install all sediment controls. | 1 day |
| 3.) | Clear and rough grade lot. | 5 days |
| 4.) | Clear for and install well and septic system. | 5 days |
| 5.) | Install foundation and construct house. | 90 days |
| 6.) | Install driveway and fine grade lot. | 3 days |
| 7.) | Permanently stabilize all disturbed areas. | 2 days |
| 8.) | Upon approval of the Inspector remove sediment controls and permanently stabilize. | 1 day |
| TOTAL ESTIMATED CONSTRUCTION TIME | | 108 DAYS |



SOILS MAP
SCALE: 1" = 1320'
SOIL SURVEY SHEET No. 62
PREDOMINANT SOIL TYPES:
GeB - Galestown - Evesboro loamy sand, 0 to 8 % slope
ShB2 - Sassafras sandy loam, 2 to 5% slopes, moderately eroded
RdA - Rumford loamy sand, 0 to 2% slopes



VICINITY MAP
SCALE: 1" = 2000'
A.D.C. STREET MAP No. 33, GRID C-12
W.S.S.C. 218 SE 10
TAX MAP No. 146, GRID C-4
PARCEL - 96

SITE ANALYSIS

- 1) Zoning: O-S
Property Street Address:
10901 North Keys Rd. Brandywine Md. 20613
Tax Account Number: 11-1183011
- 2) Minimum Building Restriction Lines:
Front B.R.L.: 50'
Side B.R.L.: 40' total 20' minimum
Rear B.R.L.: 20'
- 3) Total Lot Area 250,470 s.f. or 5.75 ac.
Disturbed Area 30000 s.f. or .69 ac.
Undisturbed Area 220470 s.f. or 5.06 ac.
Vegetatively Stabilized Area 237,583 s.f. or 5.45 ac.
- 4) Topographic information shown hereon taken from County GIS Aerial Topography and should be field checked prior to construction or other reliance thereon.
- 5) All fill under buildings to be Class 1; all fill under driveways and walks to be Class 2; all remaining fill to be Class 3.
- 6) Volume of Borrow: Volume of Spoil:
- 7) All Sediment Control and Stabilization measures shall be performed in accordance with the Standards and Specifications of the 1994 MDE Manual.

| RESIDENTIAL REQUIREMENTS | |
|---------------------------------------|--|
| 1) Zone: | <u>O-S</u> |
| 2) Number of lots: | <u>1</u> |
| 3) Number of trees required, per lot: | <u>4</u> shade trees <u>3</u> ornamental trees or evergreen trees |
| 4) Total number of trees provided: | <u>4</u> shade trees <u>3</u> ornamental trees or evergreen trees |

| PLANT LIST | | | | | |
|------------|------|----------------|---------------|----------------|----------|
| SYMBOL | QTY. | BOTANICAL NAME | COMMON NAME | SIZE | SPACING |
| + | 4 | ACER RUBRUM | RED MAPLE | 2 1/2" GAL. | AS SHOWN |
| ● | 3 | CORNUS KOUSA | KOUSA DOGWOOD | 3/4" - 1" GAL. | AS SHOWN |

NOTE:
ALL LANDSCAPING SHALL BE PLANTED IN ACCORDANCE WITH THE STANDARD DETAILS AND SPECIFICATIONS OF THE M.N.C.P. & P.D. LANDSCAPE MANUAL.

CERTIFICATE OF COMPLIANCE

I certify that this plan has been designed in accordance with the requirements of Subtitle 4, Division 3 of the Code of Prince Georges County, Maryland; and that I or my staff have inspected this site and that drainage flows from uphill properties onto this site, and from this site onto downhill properties have been addressed in substantial accordance with applicable codes.

Chander S. Dhaliwal, P.E. Maryland Registration No. 8231
Date: 11/28/10

M-NCPPC
Prince Georges County Planning Department
Natural Resources Division
APPROVAL
TREE CONSERVATION PLAN
TCP # 11136101
BY [Signature] DATE 11/28/10

PRINCE GEORGES SOIL CONSERVATION DISTRICT
APPROVAL
SEDIMENT CONTROL, GRADING, SOILS & DRAINAGE
SC# 150-02
POND
P#
DISTRICT SIGNATURE
DATE

RECORD REFERENCES: TAX MAP No. 146, GRID C-4, A.D.C. STREET MAP No. 33, GRID C-12, W.S.S.C. 218 SE 10

SITE, GRADING, LANDSCAPE, SEDIMENT CONTROL, AND TCPII PLAN
LOT 10 OF MACHEN SUBDIVISION SURVEY OF ROBERTS RESIDUE (UNRECORDED)

PARCEL 96
BRANDYWINE (11th) ELECTION DISTRICT
PRINCE GEORGES COUNTY, MARYLAND

21.0 STANDARDS AND SPECIFICATIONS FOR TOPSOIL

Definition

Placement of topsoil over a prepared subsoil prior to establishment of permanent vegetation.

Purpose

To provide a suitable soil medium for vegetative growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation.

Conditions Where Practice Applies

1. This practice is limited to areas having 2:1 or flatter slopes where:

- The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.
- The soil material is shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.
- The original soil to be vegetated contains material toxic to plant growth.
- The soil is so acidic that treatment with limestone is not feasible.

For the purpose of these standards and specifications, areas having slopes steeper than 2:1 require special consideration and design for adequate stabilization. Areas having slopes steeper than 2:1 shall have the appropriate stabilization shown on the plans.

Construction and Material Specifications

1. Topsoil salvaged from the existing site may be used to provide that it meets the standards set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the soil survey published USDA-SCS in cooperation with Maryland Agricultural Experiment Station.

2. Topsoil Specifications - Soil to be used as topsoil must meet the following:

- Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be a mixture of contrasting textured subsoils and shall contain less than 5% by volume of cinders, stones, silt, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1 1/2" in diameter.

ii. Topsoil must be free of plants or plant parts such as bermuda grass, quackgrass, johnsongrass, nutsedge, poison ivy, thistle, or others as specified.

iii. Where the subsoil is either highly acidic or composed of heavy clays, ground limestone shall be spread at the rate of 4-8 tons/acre (200-400 pounds per 1,000 sq. ft.) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedures.

II. For sites having disturbed areas under 5 acres:

i. Place topsoil (if required) and apply topsoil amendments as specified in 20.0 vegetative stabilization - Section I - Vegetative Stabilization Methods and Materials.

III. For sites having disturbed areas over 5 acres:

i. On soil meeting topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following:

a. pH for topsoil shall be between 6.0 and 7.5. If the tested soil demonstrates a pH of less than 6.0, sufficient lime shall be prescribed to raise the pH to 6.5 or higher.

b. Organic content of topsoil shall be not less than 1.5 percent by weight.

c. Topsoil having soluble salt content greater than 500 parts per million shall not be used.

d. No sod or seed shall be placed on soil which has been treated with soil sterilants or chemicals used for pest control until sufficient time has elapsed (14 days min.) to permit dissipation of phytotoxic materials.

Note: Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority, may be used in lieu of natural topsoil.

ii. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section I - Vegetative Stabilization Methods and Materials.

V. Topsoil Application

i. When topsoiling, maintain needed erosion and sediment control practices such as diversions, grade stabilization structures, earth dikes, slope silt fence and sediment traps and basins.

ii. Grades on the areas to be topsoiled, which have been previously established, shall be maintained, about 4" - 8" higher in elevation.

iii. Topsoil shall be uniformly distributed in a 4" - 8" layer and lightly compacted to a minimum thickness of 4". Spreading shall be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations should be corrected in order to prevent the formation of depressions or water pockets.

iv. Topsoil shall not be placed while the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seedbed preparation.

v. Alternative for permanent seeding - Instead of applying the full amounts of lime and commercial fertilizer, composted sludge and amendments may be applied as specified below:

i. Composted sludge material for use as a soil conditioner for sites having disturbed areas over 5 acres shall be tested to prescribed amendments and for sites having disturbed areas under 5 acres shall conform to the following requirements:

a. Composted sludge shall be supplied by, or organic from, a person or persons that are permitted (at the time of acquisition of the compost) by the Maryland Department of the Environment under COMAR 26.04.06.

b. Composted sludge shall contain at least 1 percent nitrogen, 1.5 percent phosphorus, and 0.2 percent potassium and have a pH of 7.0 to 8.0. If compost does not meet these requirements, the appropriate constituents must be added to meet the requirements prior to use.

c. Composted sludge shall be applied at a rate of 1 ton per 1,000 square feet.

iv. Composted sludge shall be amended with a potassium fertilizer applied at the rate of 4 lb/1,000 square feet, and 1/3 the normal time application rate.

GENERAL SEDIMENT AND EROSION CONTROL NOTES

1. All sediment control measures shall be adjusted as necessary to meet field conditions at the time of construction prior to any grading or disturbances of existing surface material.

2. All sediment control measures shall be undertaken in strict conformance with approved plans and the standards and specifications approved by the Prince Georges County Soil Conservation District.

3. Periodic inspection and maintenance of all sediment control structures must be provided to insure that their intended purpose is accomplished. At the end of each work day, check all sediment control measures for integrity and proper operation.

4. It shall be the contractor's responsibility to perform the work in a manner as to prevent the washing of any top soil, sediment or other debris onto adjacent properties. The Contractor shall be held liable for any such damages incurred.

5. All final grading shall be done in such a manner as to preclude any ponding of water.

6. The Developer is responsible for the acquisition of all required easements, rights and/or rights of way pursuant to the discharge from the sediment and erosion control practices, stormwater management practices and the discharge of storm water onto or across the grading or other work to be performed on adjacent or downstream properties affected by this plan.

7. Following the initial soil disturbance, or redistribution, permanent or temporary stabilization shall be completed within:

a) Seven calendar days for the surface of all perimeter controls, dikes, swales, ditches, perimeter slopes, and all slopes steeper than 3:1 horizontal to 1:1 vertical (3:1).

b) Fourteen calendar days for all other disturbed or graded areas on the project site.

The in place sediment control measures shall be maintained on a continuing basis until the site is permanently stabilized and all other permit requirements have been met.

8. On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of the installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbing or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.

9. Approval shall be requested upon final stabilization of all sites with disturbed areas in excess of 2 acres before the removal of controls.

e. Disturbed surface area: 0.68 Ac.
Volume of soil material: 0
Volume of borrow material: 0

f. List of predominant soil types and general description per PGSCD Soil Survey:

CoB - Galestown - Evesboro loamy sand
SHB2 - Sassafras sandy loam
RAA - Rumlford loamy sand

19.0 STANDARDS AND SPECIFICATIONS FOR LANDGRADING

Definition

Reshaping of the existing land surface in accordance with a plan as determined by engineering and survey layout.

Purpose

The purpose of land grading specification is to provide for erosion control and vegetative establishment on those areas where existing land surface is to be reshaped by grading according to plan.

Design Criteria

The grading plan should be based upon the incorporation of building designs and street layouts that fit and utilize existing topography and desirable natural surroundings to avoid extreme grade modifications. Information submitted must provide sufficient topographic surveys and soil investigations to determine limitations that must be imposed on the grading operation related to slope stability, effect on adjacent properties and drainage patterns, measures for drainage and water removal and vegetative treatment, etc.

Many counties have regulations and design procedures already established for land grading and cut and fill slopes. Where these requirements exist, they shall be followed. The plan must show existing and proposed contours of the area(s) to be graded. The plan shall also include practices of erosion control, slope stabilization, safe disposal of runoff water and drainage, such as waterways, lined ditches, reverse slope benches (include grade and cross section), grade stabilization structures, retaining walls, and surface and subsurface drains. The plan shall also include phasing of these practices. The following shall be incorporated into this plan:

1. Provisions shall be made to safely conduct surface runoff to storm drains, protected outlets or to stable water courses to insure that surface runoff will not damage slopes or other graded areas.

2. Cut and fill slopes that are to be stabilized with grasses shall not be steeper than 2:1. (Where the slope is to be moved, the slope should be no steeper than 3:1. 4:1 is preferred because of safety factor related to mowing steep slopes.) Slopes exceeding 2:1 shall require special design and stabilization considerations that shall be adequately shown on the plans.

3. Reverse benches shall be provided whenever the vertical interval (height) of any 2:1 slope exceeds 20 feet. For 3:1 slope it shall be increased to 30 feet and for 4:1 to 40 feet. Benches shall be located to divide the slope face as equally as possible and shall convey the water to a stable outlet. Soils, seeps, rock outcrops, etc., shall also be taken into consideration when designing benches.

a. Benches shall be a minimum of six feet wide to provide for ease of maintenance.

b. Benches shall be designed with a reverse slope of 6:1 or flatter to the toe of the upper slope and with a minimum of one foot in depth. Bench gradient to the outlet shall be between 2 and 3 percent, unless accompanied by appropriate design and computations.

c. The flow length within a bench shall not exceed 800' unless accompanied by appropriate design and computations. For flow channel stabilization see temporary swale.

4. Surface water shall be diverted from the face of all cut and/or fill slopes by the use of earth dikes, ditches and swales or conveyed downslope by the use of a designed structure, except where:

a. The face of the slope is or is to be stabilized and the face of all graded slopes shall be protected from surface runoff until they are stabilized.

b. The face of the slope shall not be subject to any concentrated flows or surface water such as from natural drainages, gullies, gullies, ditches, etc.

c. The face of the slope will be protected by special erosion control materials, to include, but not limited to: approved vegetative stabilization practices (see section G), riprap or other approved stabilization methods.

5. Cut slopes occurring in ripable rock shall be serrated as shown on the following diagram. These serrations shall be made with conventional equipment as the excavation is made. Each step or serration shall be constructed on the contour and will have steps cut at nominal two-foot intervals with nominal three-foot horizontal shelves. These steps will vary depending on the slope ratio but the maximum vertical face slope line is 1:1. These steps will weather and act to hold moisture, lime fertilizer and seed thus producing a much quicker and longer lived vegetative cover and better slope stabilization. Overland flow shall be diverted from the top of all serrated slopes and carried to a suitable outlet.

6. Subsurface drainage shall be provided where necessary to intercept seepage that would otherwise adversely affect slope stability or create excessively wet site conditions.

7. Slopes shall not be created so close to property lines as to endanger adjoining properties without adequately protecting such properties against sedimentation, slippage, settlement, subsidence or other related damages.

8. Fill material shall be free of brush, rubbish, rocks, logs, stumps, building debris, and other objectionable material. It should be free of stones over two (2) inches in diameter where compacted by hand or mechanical tampers or over eight (8) inches in diameter where compacted by rollers or other equipment. Frozen material shall not be placed in the fill nor shall the fill material be placed on a frozen foundation.

9. Stockpiles, borrow areas and spoil shall be shown on the plans and shall be subject to the provisions of this standard and specifications.

10. All disturbed areas shall be stabilized structurally or vegetatively in compliance 20.0 Standards and Specifications for Vegetative Stabilization.

OWNER'S/DEVELOPER'S CERTIFICATION

"I/we hereby certify that I/we have reviewed this erosion and sediment control plan and that all clearing, grading, construction and/or development will be done pursuant to this plan and that any responsible personnel involved in the construction project will have a certificate of attendance at a Department of Environment approved training program for the control of sediment and erosion before beginning the project."

Signature: Charles J. Lucas Date: 8/31/01

Name (printed): Charles J. Lucas Phone #: (801) 894-4763

Firm: Complete Address: 2735 Bellbrook St.

Temple Hills, Md. 20748

CONSULTANT'S CERTIFICATION

"I certify that this plan of erosion and sediment control represents a practicable and workable plan based on my personal knowledge of the site, and that this plan was prepared in accordance with the requirements of the Prince Georges County Soil Conservation District and "Standards and Specifications for Soil Erosion and Sediment Control". I have reviewed this erosion and sediment control plan with the owner/developer.

Signature: Chander S. Dhaliwal MD. License No. # 8231

Date: 8/31/01 Name (printed): CHANDER S. DHALIWAL P.E.

(include seal, company name, address and phone number if not included elsewhere on plan).

24.0 MATERIALS SPECIFICATIONS

Table 27 - Geotextile Fabric

| CLASS | APPARENT OPENING SIZE MM. MAX. | GRAB TENSILE STRENGTH LB. MIN. | BURST STRENGTH PSI. MIN. |
|----------------|--------------------------------|--------------------------------|--------------------------|
| A | 0.30 | 250 | 500 |
| B | 0.60 | 200 | 320 |
| C | 0.30 | 200 | 320 |
| D | 0.60 | 90 | 145 |
| E | 0.30 | 90 | 145 |
| F (Silt Fence) | 0.40-0.80** | 90 | 190 |

** US Std. Sieve CW-02215

The properties shall be determined in accordance with the following procedures:

- Apparent opening size MSMT 323

- Grab tensile strength ASTM D 1682:

4 x 8" specimen, 12" x 2" clamps, 12"/min. strain rate in both principal directions of geotextile fabric.

- Burst strength ASTM D 3786

Permanent and temporary seeding, sodding and mulching.

I. SITE PREPARATION

Permanent or temporary vegetation shall be established within (7) seven calendar days on the surface of all sediment control practices such as diversions, grade stabilization structures, berms, waterways, sediment control basins, and all slopes greater than 3:1 horizontal to 1:1 vertical (3:1) and within (14) fourteen calendar days for all other disturbed or graded areas on the project site. Mulching may only be used on disturbed areas as temporary cover where vegetation is not feasible or where seeding cannot be completed because of weather.

II. SEEDBED PREPARATION AND SEEDING APPLICATION

Loosen the top layer of the soil to a depth of 3 to 5 inches by means of suitable agricultural or construction equipment or such as disc harrows, chisel plows or ripers mounted on construction equipment. Incorporate the lime and fertilizer into the top 3 to 5 inches of the soil by discing or by other suitable means. Rough areas should not be rolled or dragged smooth, but left in a roughened condition. Steep slopes greater than 3:1 grade should be tracked by a dozer, leaving the soil in an irregular condition with the ridges running parallel to the contour of the slope. The top 1 to 3 inches of soil should be loose and friable. Permanent cover may require an application of topsoil. If so, it must meet the requirements set forth in section 21.0 Standards and Specifications for Topsoil from the 1994 Standards and Specifications.

III. SOIL AMENDMENTS

Soil tests shall be made on sites over five acres to determine the exact requirements for both lime and fertilizer. For sites under five acres, in lieu of soil test, apply the following:

Fertilizer Nitrogen 2 lbs/ sq. ft. (90 lbs/ac)
P₂O₅ 4 lbs/ sq. ft. (175 lbs/ac)
K₂O 4 lbs/1,000 sq. ft. (175 tons/ac)

For low maintenance areas apply 150 lbs/ac ureamform fertilizer (38-0-0) at 3.5 lbs/1,000 sf in addition to the above fertilizer at the time of seeding.

Ground limestone: 2tons/ac

IV. SEDIMENT CONTROL PRACTICE SEEDING

Select a seeding mixture from tables 25 or 26 in section G of the 1994 Standards and Specifications. Document seeding on the erosion and sediment control plan using appropriate chart below. Note: If sediment control practices are in for longer than 12 months, permanent seeding is required.

V. TEMPORARY/PERMANENT SEEDING MIXTURES AND RATES

Select a seeding mixture from tables 25 and 26 in section G of the 1994 Standards and Specifications. Document seeding on the erosion and sediment control plan using appropriate chart below.

Permanent Seeding Summary

| Seed Mixture (Hardiness Zone <u>7a</u>) | | | | Fertilizer Rate 10-10-10 | | Lime Rate | |
|--|---|--------------------------|----------------------------|--------------------------|------------------------------|------------------------------|--|
| From Table 25 | | | | | | | |
| No. | Species | Application Rate (lb/ac) | Seeding Dates | Seeding Depths | | | |
| Mix #7 | Tall Fescue 85% Wheatgrass 15% | 10 3 | 3/1 - 11/15 | 1/4"-1/2" | | | |
| Mix #8 | Tall Fescue 85-0-0 Kentucky 0-0-1 Diarrhiza | 5-8 lbs/1,000sf | 3/1 - 5/15 8/15 - 11/15 | 1/4"-1/2" | 600 lb/ac (15 lb/1,000sf) | 2 tons/ac (100lb/1,000sf) | |

* For low maintenance areas only
* For lawn areas

Temporary Seeding Summary

| Seed Mixture (Hardiness Zone <u>7a</u>) | | | | Fertilizer Rate 10-20-20 | | | Lime Rate | |
|--|-----------------|--------------------------|---------------------------|--------------------------|------------------------------|-----------------------------|-----------------------------|-----------------------------|
| From Table 26 | | | | | | | | |
| No. | Species | Application Rate (lb/ac) | Seeding Dates | Seeding Depths | N | P205 | K20 | |
| 1 | Annual Ryegrass | 50 | 2/1 - 4/30 8/15 - 11/1 | 1/4"-1/2" | | | | |
| 2 | Wheatgrass | 4 | 5/1 - 8/14 | 1/4"-1/2" | 90 lb/ac (2.0 lb/1,000sf) | 175 lb/ac (4 lb/1,000sf) | 175 lb/ac (4 lb/1,000sf) | 2tons/ac (100lb/1,000sf) |
| | | | | | Equals 90 lbs. of | 10-20-20 | | |

VI. TURFGRASS ESTABLISHMENT

This includes lawns, parks, playgrounds, and commercial sites which will receive a medium to a high level of maintenance. Areas to receive seed shall be filled by discing or other approved methods to a depth of 3 to 5 inches, leveled and raked to prepare a proper seedbed. Stones and debris over 1 1/2 inches in diameter shall be removed. The resulting seedbed shall be in such a condition that future mowing of grasses will pose no difficulty. Use certified material and choose a turfgrass mixture from page G-20 of the 1994 Standards and Specifications or select from the list in the most current University of Maryland publication, Agronomy Mimeo #77, "Turfgrass Cultivar Recommendations for Maryland". See mimeo at the end of this section.

VII. MULCHING

All seedings require mulching. Also mulch during non seeding dates until seeding can be done. Mulch shall be unchopped, untreated, small grain straw applied at a rate of 2 tons/acre or 90 lbs/1,000 sf (2 bales). If mulch anchoring tool is used, apply 2.5 tons/acre. Mulch materials shall be relatively free of all kinds of weeds and shall be completely free of noxious weeds. Spread mulch uniformly, either mechanically or by hand, to a depth of 1 to 2 inches. Mulch anchoring shall be accomplished immediately after mulch placement to minimize loss by wind or water. This may be done by mulch netting, mulch anchoring tool, wood cellulose fiber or liquid mulch binders.

Apply wood cellulose fiber at a dry weight of 1500 lbs/acre. If mixed with water, use 50 lbs. of wood cellulose fiber per 100 gallons of water.

Liquid binder should be applied heavier at the edge, where wind catches mulch in valleys, and on crest of banks. The remainder of the area should appear uniform after binder application. Apply rates recommended by the manufacturer to anchor and mulch. Staple light weight, plastic netting over mulch according to manufacturer's recommendations.

VIII. SODDING

Class of turfgrass sod shall be Maryland or Virginia State certified or approved sod. Sod shall be harvested, delivered and installed within a period of 36 hours. Sod is to be laid with long edges parallel to the contour using staggered and with all ends tightly abutted and not overlapping. Sod shall be raked and thoroughly watered after installation. Daily watering to maintain 4 inches of moisture for the first week is required in the absence of rainfall. Sod is not to be applied on frozen ground.

IX. MAINTENANCE

a. Irrigate - Apply minimum 1" of water every 3 to 4 days depending on soil texture, when soil moisture becomes deficient to prevent loss of stand of protective vegetation.

b. Repairs - If stand provides between 40% and 94% ground coverage, overseed and fertilize using half of the rates originally applied. If stand provides less than 40% coverage, reestablish stand following original rates and procedures.

Note: Use of this information does not preclude meeting all of the requirements of the 1994 Standards and Specifications for Soil Erosion and Sediment Control Vegetative Practices.

24.0 MATERIALS SPECIFICATIONS

Table 28 - Stone Size

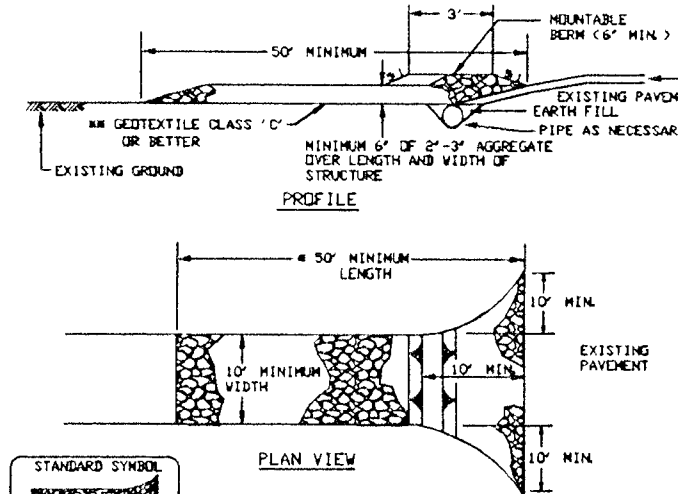
| | SIZE RANGE | D ₅₀ | D ₁₀₀ | ASSHTO | WEIGHT |
|------------|-------------|-----------------|------------------|--------|--------------|
| NUMBER 57* | 3/8"-1 1/2" | 1 1/2" | 1 1/2" | M-43 | N/A |
| NUMBER 1 | 2"-3" | 2 1/2" | 3" | M-43 | N/A |
| RIP-RAP** | 4"-7" | 5 1/2" | 7" | N/A | N/A |
| CLASS I | N/A | 9.5" | 15" | N/A | 150lb.max. |
| CLASS II | N/A | 16" | 24" | N/A | 700lb.max. |
| CLASS III | N/A | 23" | 34" | N/A | 2,000lb.max. |

* This classification is to be used on the inside face of stone outlets and check dams.

** This classification is to be used whenever small rip-rap is required.

The State Highway Administration designation for this stone is Stones for Gabions (905.01.04)

DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE



Construction Specifications

1. Length - minimum of 30' x 40' for single residence lots.

2. Width - 12' minimum, should be flared at the existing road to provide a turning radius.

3. Slope - 12:1 minimum, should be flared at the existing road to provide a turning radius.

4. Slope - 12:1 minimum, should be flared at the existing road to provide a turning radius.

5. Surface water - All surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining and true drainage.

6. Construction - A stabilized construction entrance shall be located in every project area where construction traffic enters or leaves a construction site. Vehicle leaving the site must travel over the entire length of the stabilized construction entrance.

7. Construction - A stabilized construction entrance shall be located in every project area where construction traffic enters or leaves a construction site. Vehicle leaving the site must travel over the entire length of the stabilized construction entrance.

8. Construction - A stabilized construction entrance shall be located in every project area where construction traffic enters or leaves a construction site. Vehicle leaving the site must travel over the entire length of the stabilized construction entrance.

9. Construction - A stabilized construction entrance shall be located in every project area where construction traffic enters or leaves a construction site. Vehicle leaving the site must travel over the entire length of the stabilized construction entrance.

10. Construction - A stabilized construction entrance shall be located in every project area where construction traffic enters or leaves a construction site. Vehicle leaving the site must travel over the entire length of the stabilized construction entrance.

11. Construction - A stabilized construction entrance shall be located in every project area where construction traffic enters or leaves a construction site. Vehicle leaving the site must travel over the entire length of the stabilized construction entrance.

12. Construction - A stabilized construction entrance shall be located in every project area where construction traffic enters or leaves a construction site. Vehicle leaving the site must travel over the entire length of the stabilized construction entrance.

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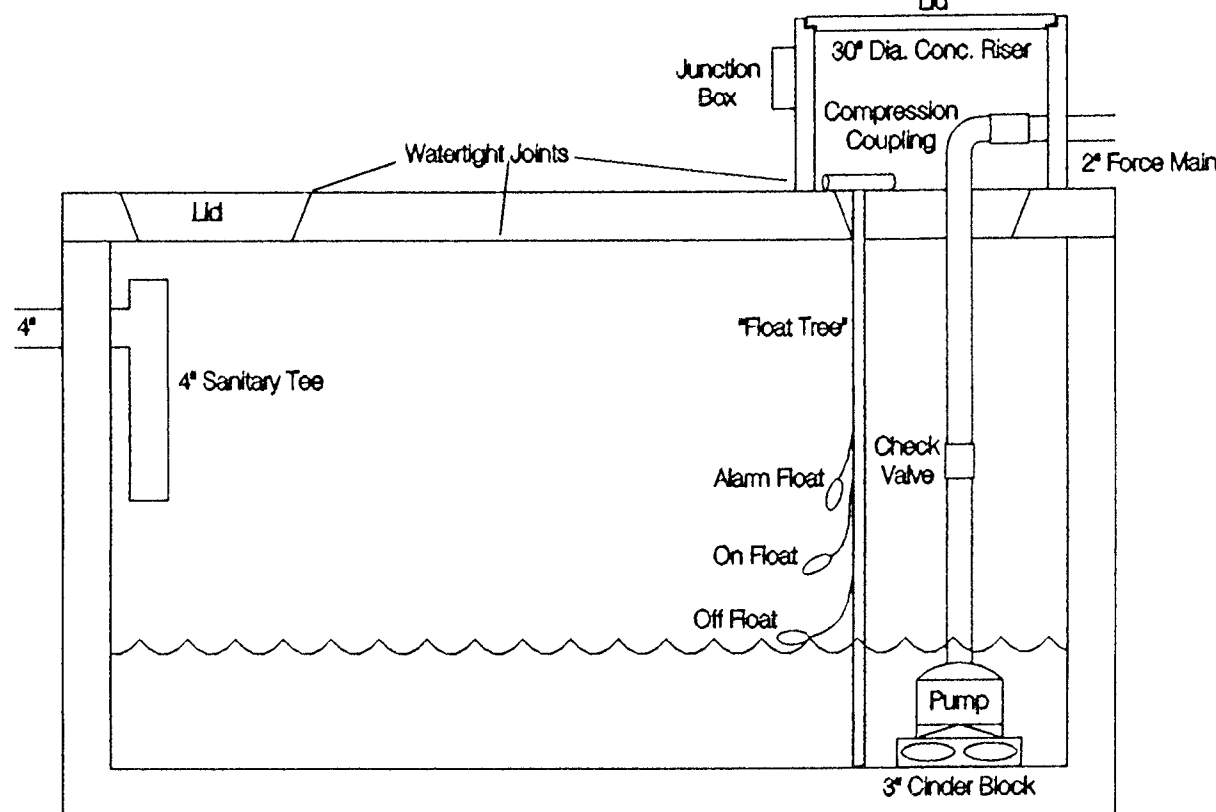
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1,500 Gallon Pump Chamber - Top Seam,
Outside Dimensions: Length 159" Width 63" Depth 60 1/2"

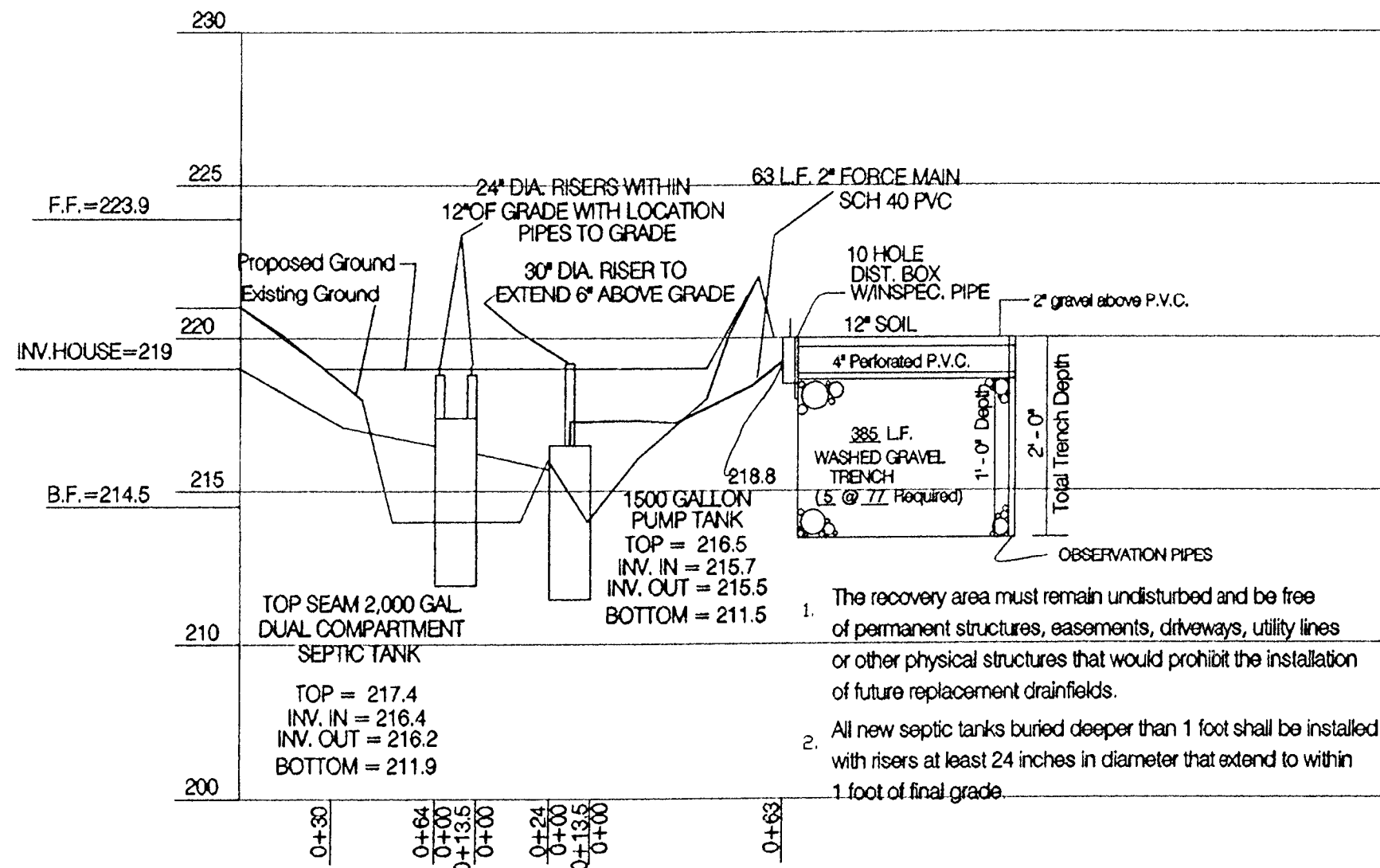


| ELEVATION DATA (feet) | |
|------------------------------|-------------------------|
| 216.7 Inlet invert | 218.5 Top of tank |
| 216.46 Outlet invert | 213.85 Alarm float |
| 211.79 Tank bottom (inside) | 213.97 Pump - on float |
| 211.46 Tank bottom (outside) | 213.12 Pump - off float |

| DESIGN DATA | |
|--|--|
| 384.5 Linear feet of drainfield | 5.5 Equivalent length of pipe |
| 261.1 Volume of drainfield pipe in gallons (1 x R ² x L x 7.48) | 36.5 Total pipe length (linear + equivalent) |
| 2 Diameter of force main pipe (inches) | 3.1 Frictional loss per 100' of pipe with min. velocity of 2.0 ft./sec. |
| 63 Linear length of force main pipe | 2.12 Frictional loss for system (total pipe length x frictional loss / 100') |
| 261.1 Gallons pumped each cycle | 5.68 Static head loss (highest pipe elev. - pump off elev.) |
| 6.89 Drainfield pipe volume & force main volume | 7.8 Total head loss (frictional loss + system static loss) |
| 6.89 Inches drawdown per cycle (Gallons pumped x 12) / (L x W x 7.48) | 1/2 Size horsepower pump needed (refer to pump curve) |
| 761.2 Gallons of reserve capacity (L x W x (inlet elev. - lag/alarm elev.) x 7.48) | Drawdown time: minute : sec. at : gpm: |
| 20.04' x 34.1 gal. in. | Recommended pump: Make GOULDS, Model # WE03L |
| | Control panel: Make GOULDS, Model # SIMPLEX w/ALARM or equivalent |

| SEPTIC SYSTEM | |
|-----------------------------------|--|
| TANK SIZE 2,000 GAL. TOP SEAM | |
| 2 COMPARTMENT | |
| TOTAL TRENCH LENGTH 385 FEET | |
| No. OF TRENCHES REQD. 5 @ 77 FEET | |
| TOTAL DEPTH 2 FEET | |
| GRAVEL DEPTH 1 FOOT | |
| TRENCH WIDTH 1 FOOT | |

SOIL PERCOLATION TEST APPLICATION NO. 8915-2001



Septic profile
VERTICAL SCALE: 1" = 5'
HORIZONTAL SCALE: 1" = 50'

Pump Chamber Installation Procedures Notice to all contractors/owners

An electrical permit is required to install the effluent pump motor, alarm control box and associated wiring. A copy of the electrical permit displaying approval by the electrical inspector must be on site for the Health Department review. Health Department shall not conduct the pump system test until the electrical inspector has approved the electrical components of the pump system.

1. The Health Department must approve any change to the approved septic system plans. These change may include but are not limited to the pump model/manufacture, the pump/alarm floats, the alarm control box and the pump chamber size. Contact the Health Department prior to the purchasing and/or installing components not specified on the approved plans.

2. If ground water is observed during the excavation for the septic tank or pump chamber and special conditions have not been stipulated on the septic permit and/or plans approved to remove the water (i.e the ground water must be drained to daylight), stop digging and contact the Health Department. Do not install a tank in water until the area sanitarian has evaluated the site and given permission to proceed with the installation.

3. Any junction box/receptacle installed outside the pump chamber must be located at least 6 inches above final grade and be tamper resistant. It is recommended that the unit be securely attached to the outside surface of the pump chamber riser.

4. All septic tank, pump chamber and access ring seams shall be made watertight. The alarm float and pump motor (s) shall be placed on separate electrical circuits. The force main shall be constructed of solvent welded schedule 40 PVC or equivalent. The typical concrete pump chamber riser and lid must be at least 30 inches in diameter and extend no less than 6 inches above final grade. A water-tight riser and lid may be installed at final grade level.

5. Attached the pump and alarm floats to a PVC pipe other than the force main. After the proper float height adjustments are made, the float lines should be clamped or tethered to the pipe. The pipe must be secured in place but be removable for maintenance.

6. Prior to final approval of the septic system, the Health Department shall observe the pump system run through a normal operating cycle. Please have an adequate water supply on hand to complete the testing procedure. Testing the floats and control box without water is not acceptable.

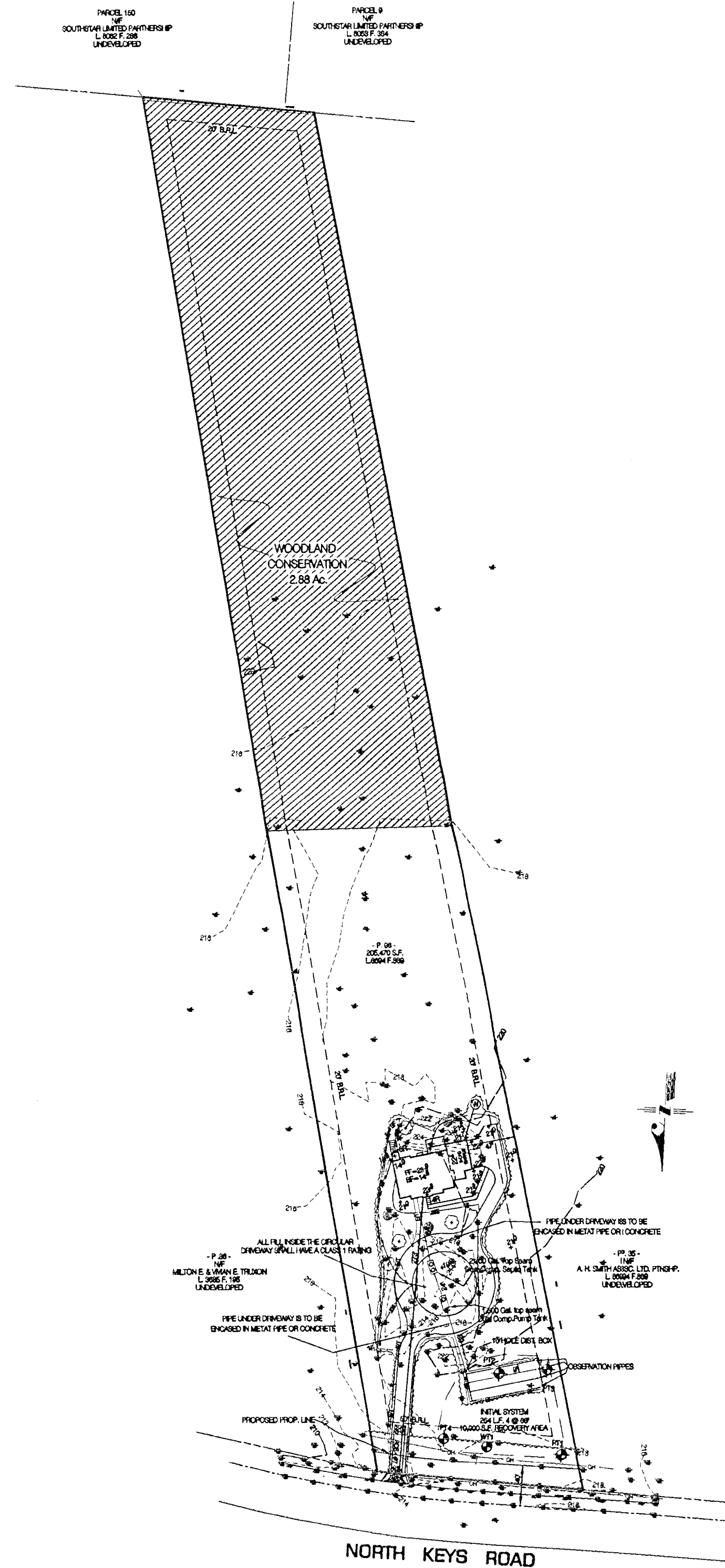
7. Inspection of the force main and distribution box will be made during the test procedure. Contact the Health Department if circumstances require that these components be backfilled prior to the pump test.

NOTE:

- The recovery area must remain undisturbed and be free of permanent structures, easements, driveways, utility lines or other physical structures that would prohibit the installation of future replacement drainfields.
- All new septic tanks buried deeper than 1 foot shall be installed with risers at least 24 inches in diameter that extend to within 1 foot of final grade. Access to the second compartment of a 2 compartment septic tank may be achieved through a schedule 40 PVC pipe a minimum of 6 inches in diameter.
- Septic system lines located under driveways or parking lots must be schedule 80 PVC or encased in a cast iron sleeve.
- The abandoned well(s) located on this property must be properly backfilled and sealed.
- The abandoned septic tank(s) located on this property must be pumped by a licensed scavenger and crushed and filled in.
- The perimeter of the recovery area must be clearly field staked prior to, and during grading activities associated with the permit in order to prevent inadvertent disturbance of this area.

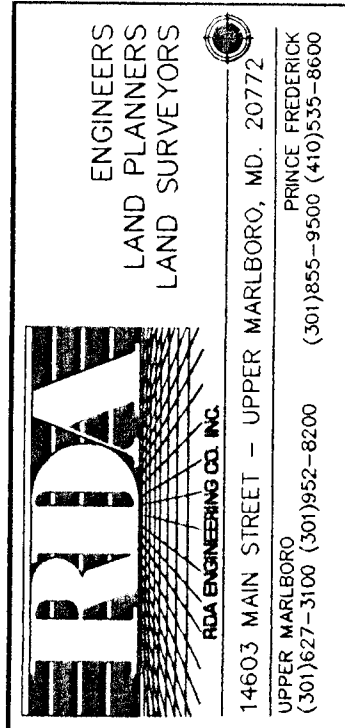
SEPTIC PUMP TANK NOTES:

- All pump chamber and access ring seams shall be made water tight. If a high water table exists, the entire outside of the pump chamber and access ring(s) shall be tarred or sealed with a hydraulic cement paint. All seams must be made watertight prior to sealing.
- The alarm float and the pump motors shall be placed on separate electrical circuits.
- The force main must be constructed of solvent welded schedule 40 p.v.c.
- An electrical permit is required to install the effluent pump motor, alarm control box and associated wiring. A copy of the electrical permit displaying approval by the electrical inspector must be on site for health department review. The health department shall not conduct the pump system test until the electrical components of the pump system have been approved by the electrical inspector.
- The electrical junction box/receptacle used to connect the pump and alarm control box wires must be rain tight and tamper resistant. The junction box/receptacle must be placed at least 6 inches above finished grade and be installed on the outside of the pump chamber riser. Conduct the pump system test until the electrical components of the pump system have been approved by the electrical inspector.



COMPOSITE SITE
SCALE: 1" = 100'

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| M-NCPPC Prince George's County Planning Department Natural Resources Division APPROVAL TREE CONSERVATION PLAN TCP - 11136/01 BY <i>John P. [Signature]</i> DATE <i>11/15/01</i> |
|--|



REVISIONS

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|---------|----------|-----|-----|------------|
| PG-8177 | AS SHOWN | UBS | CSO | JULY, 2001 |
|---------|----------|-----|-----|------------|

COMPOSITE SITE AND HEALTH DEPARTMENT SHEET
LOT 10 OF MACHEN SUBDIVISION SURVEY OF ROBERTS RESIDUE (UNRECORDED)

PARCEL 96

BRANDYWINE (11th) ELECTION DISTRICT
PRINCE GEORGE'S COUNTY, MARYLAND

SHEET 3 of 3