Construction Notes

- 1. THE CONTRACTOR SHALL NOTIFY THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS CONSTRUCTION INSPECTION DIVISION AT 410-313-1880 AT LEAST 24 HOURS PRIOR TO STARTING ANY OF THE WORK SHOWN HEREON.
- 2. ALL AREAS NOT BEING PAVED OR RECEIVING BUILDING COVERAGE SHALL BE STABILIZED IN ACCORDANCE WITH THE PLANS APPROVED BY THE HOWARD SOIL CONSERVATION DISTRICT.
- 3. THE CONTRACTOR SHALL NOTE THAT IN CASE OF DISCREPANCY
 BETWEEN ANY SCALED DIMENSIONS AND THE FIGURED DIMENSIONS
 SHOWN ON THESE PLANS, THE FIGURED DIMENSIONS SHALL GOVERN.
 4. CONTRACTOR SHALL MEET ALL EXISTING IMPROVEMENTS
 SMOOTHLY FOR LINE, GRADE AND FINISH.
- 5. ALL WORK SHOWN ON THESE PLANS SHALL BE COMPLETED IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS AND OF THE MARYLAND STATE HIGHWAY ADMINISTRATION AND THE HOWARD COUNTY PLUMBING CODE, UNLESS OTHERWISE NOTED.
- 6. IT SHALL BE DISTINCTLY UNDERSTOOD THAT FAILURE TO MENTION SPECIFICALLY ANY WORK WHICH WOULD NORMALLY BE REQUIRED TO COMPLETE THIS PROJECT SHALL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO PERFORM SUCH WORK. THE COST OF SUCH WORK SHALL BE INCLUDED IN THE BASE BID.
- THE COST OF SUCH WORK SHALL BE INCLUDED IN THE BASE BID.

 7. THE CONTRACTOR SHALL INSPECT THE SITE TO DETERMINE IF
 ANY TREES, PAVING, ETC. ARE TO BE REMOVED PRIOR TO PLACING
 A BID ON SUCH ITEMS.
- 8. THE LOCATIONS OF EXISTING UTILITIES SHOWN HEREON ARE APPROXIMATE ONLY AND ARE PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. THE LOCATIONS ARE TAKEN FROM LOCATIONS. THE CONTRACTOR SHALL NOTIFY MISS UTILITY AT 1-800-257-7777 A MINIMUM OF 5 WORKING DAYS PRIOR TO DIGGING. THE CONTRACTOR SHALL CONFIRM TO HIS OWN SATISFACTION THE LOCATION OF ALL UTILITIES PRIOR TO ANY EXCAVATION OR PLACEMENT OF MATERIALS. IF ANY CONFLICT IS FOUND BETWEEN UNDERGROUND UTILITIES AND THE PROPOSED LOCATION OF ANY CONSTRUCTION, THE CONTRACTOR SHALL CONTACT G. W. STEPHENS AND THE OWNER OF THE UTILITY IMMEDIATELY. ANY DAMAGE OR DISRUPTION OF SERVICE SHALL BE AT THE EXPENSE OF THE CONTRACTOR. RELOCATION OF ANY EXISTING UTILITIES, IF NECESSARY, SHALL BE AT THE EXPENSE OF THE OWNER. THE CONTRACTOR SHALL COORDINATE RELOCATION OF THESE
- FACILITIES, IF NECESSARY.

 9. CONTRACTOR SHALL PROTECT ALL EXISTING TREES OUTSIDE
 THE LIMIT OF DISTURBANCE AT ALL TIMES DURING CONSTRUCTION.

 10. CONTRACTOR SHALL PROTECT ALL EXISTING IMPROVEMENTS
 NOT SCHEDULED FOR REMOVAL OR DEMOLITION. COST OF REPAIR
 TO EXISTING IMPROVEMENTS SHALL BE INCLUDED IN THE BASE
 BID. ALL EXISTING SITE FEATURES NOT BEING RETAINED SHALL
 BE REMOVED AND DISPOSED OF AT AN APPROVED LOCATION. ANY
 DAMAGE TO OFFSITE ROADS, RIGHTS OF WAY, OR ADJACENT
 PROPERTY SHALL BE REPAIRED IMMEDIATELY AT THE EXPENSE OF
 THE CONTRACTOR.
- 11. THE CONTRACTOR SHALL CLEAR THE PROJECT SITE OF ALL TREES, PAVING, STRUCTURES, ETC. WITHIN THE CONSTRUCTION AREA UNLESS OTHERWISE NOTED ON THE PLAN.
- 12. ONLY SUITABLE MATERIAL SHALL BE USED AS FILL AND ALL FILL SHALL BE PLACED AND COMPACTED AS SPECIFIED IN THE SOILS REPORT PREPARED FOR THIS SITE OR AS RECOMMENDED BY THE EXCEPTING THOSE ASSOCIATED WITH LANDSCAPE BERMING, ALL GRADING UNDER PROPOSED PAVING, AND ALL FILL AND COMPACTION SHALL BE APPROVED BY A GEOTECHNICAL ENGINEER.
- 13. CONTRACTOR SHALL PROVIDE MINIMUM 4 FOOT BENCH AT EDGE
 OF PAVING IN FILL AREAS. MAXIMUM SLOPE OF BENCH SHALL BE
 4% (1/4 IN PER FOOT).
- 14. MAXIMUM SLOPE SHALL BE 2 HORIZONTALLY TO 1 VERTICALLY.
- 15. CONTRACTOR SHALL PLACE 4" MINIMUM TOPSOIL IN LANDSCAPE AREAS.

 16. CONTRACTOR SHALL PLACE A WITNESS POST AT THE TERMINUS
- OF ALL UTILITY STUBS.

 17. CONTRACTOR SHALL PROVIDE A MINIMUM OF 1 FOOT OF PROTECTIVE FILL OVER STORM DRAIN PIPES DURING CONSTRUCTION.

Legend

	
Ex. 2' Contours ·	•••••
Ex. 10' Contours -	
Prop. 2' Contours -	222
Prop. 10' Contours	220
Ex. Curb & Gutter	
Prop. Curb & Gutter	
	ne
Ex. Sanitary —	
Ex. Storm Drain —	
Ex. Water —	
Prop. Sanitary	
Prop. Storm Drain	0
Prop. Water	
Prop. Sidewalk	
Silt Fence	SFSF
Super Silt Fence —	
Wetland —	
	vv
100 YR Floodplain	FP
•	1 1
Wetland Buffer —	——— wb ——— -

NOTE:

The owner shall provide a separate and independent sewer connection for each tenant or occupant of any building, shown on this site development plan who will discharge non-domestic waste to the public sewerage system if each separate and independent sewer connection shall include a standard manhole and other waste pretreatment devices as required and approved by Howard County. Waste lines on the interior of the building shall be designed, constructed or modified such that non-domestic waste will be discharged to the separate and independent sewer connection. No tenant or occupant of any building shown on this site development plan shall discharge regulated non-domestic waste to the public sewerage system prior to installation of the separate and independent sewer connection and related interior waste lines. The above statement shall apply to all initial and future occupants or tenants.

The Owner of any lot or parcel at Troi Hill Commerce Center shall submit a traffic engineer's estimate of peak hour vehicular site trip generation with each re-subdivision plat or site development plan it files with the County for approval. the submission of any esubdivision plat or site development plan that results in a total aggregate peak hour projected trip volume from Trol Hill of at least 1746 vechicles per peak hour on a typical weekday shall require that the Owner of such plan must apply for the construction of the U.S. Toute 1 Phase III traffic improvements and must complete construction of such improvements within three years after plan approval in accordance with the Adequate Public Agreement F-91-24

18. ALL TRAFFIC CONTROL DEVICES, MARKINGS, AND SIGNAGE
SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE
"MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES." ALL STREET
AND REGULATORY SIGNS SHALL BE INSTALLED PRIOR TO INSTALLATION
OF FINISHED PAYING.

19. THE CONTRACTOR SHALL REPLACE ANY EXISTING BITUMINOUS PAVING OR SUB-BASE WHICH IS DAMAGED OR REMOVED DURING CONSTRUCTION. ALL EXCAVATED AREAS SHALL BE BACKFILLED AND IN ACCORDANCE WITH THE SOILS REPORT AND/OR AS DIRECTED BY GEOTECHNICAL ENGINEER. ANY AREAS TO BE PAVED WHICH EXHIBIT UNSTABLE SUBGRADE CONDITIONS SHALL BE EXCAVATED TO BEARING SOIL, REFILLED AND COMPACTED.

20. IN AN AREA WHERE EXCAVATION IS NEEDED WITHIN THE ROAD

RIGHT-OF-WAY, EXCAVATION MUST BE MADE WITHIN ONE (1) FOOT OF THE FINAL SUBGRADE.

21. WHERE FILL IS PROPOSED WITH IN THE ROAD RIGHT-OF-WAY, THE FILL SHALL BE A MINIMUM OF TWO (2) FEET BELOW THE FINAL ROAD SUBGRADE.

22. STORMWATER MANAGEMENT FOR THIS SITE IS PROVIDED IN THE EXISTING POND #4 ON ADJACENT PARCEL A-5.

23. ALL LIGHTING TO BE MOUNTED TO BUILDING WHICH WII BE SHOWN ON ARCHITECTUAL PLANS.

24. ALL LIGHTING TO COMPLY WITH ZONING REGULATION SPECIFICATIONS

SECTION 134 OUTDOOR LIGHTING.
25. ALL STORM DRAINS TO BE RCCP OR HDPE UNLESS OTERWISE NOTED

Site Developement Plan

for

Parcel A - 3

Troy Hill Corporate Center

Howard County, Maryland

SDP 99-127

Parking Tabulation

BENCHMARKS

IRON PIN @ TRAVERSE #1066 N 496.501.3597 E 869,134.4576

IRON PIN @ TRAVERSE #1061 N 498,036.6945 E 868,791.1502

IRON PIN @ TRAVERSE #1034

N 497,636.7437 E 869,835.6586

COORDINATES BASED ON NAD 27.

GEODETIC CONTROL STATIONS

AS PROJECTEDBY HOWARD COUNTY

BENCHMARK #1

BENCHMARK #2

BENCHMARK #3

ELEVATION = 175.92

ELEVATION = 242.49

ELEVATION = 214.85

#2445004 AND #2445005

TOTAL BUILDING AREA = 12,325 SQ. FT. PARKING REQUIRED:

2,725 SQ. FT. GENERAL OFFICE

@ 3.3 SPACES/1000 SQ.FT = 9.0 SPACES

3,980 SQ. FT. VEHICLE SALES

@ 2.0 SPACES/1000 SQ. FT. = 8.0 SPACES

2 - 2,400 SQ. FT. VEHICLE SERVICE BAYS

@ 3.0 SPACES /SERVICE BAY = 6.0 SPACES

@ 2.0 SPACES /1000 SQ. FT. = 10.0 SPACES

820 SQ. FT. RETAIL/SHOW ROOM

@ 5.0 SPACES/1000 SQ. FT. = 4.0 SPACES TOTAL REQUIRED= 31.0 SPACES PARKING PROVIDED = 34 SPACES (INCLUDES 2 HANDICAPPED)

Index of Sheets

SHEET NO. 1 - COVER SHEET

SHEET NO. 2 - SITE PLAN
SHEET NO. 3 - SITE PLAN DETAILS

SHEET NO. 4-DRAINAGE AREA MAP AND PROFILES

SHEET NO. 6 - SEDIMENT EROSION CONTROL PLAN

SHEET NO. 5 - STORMCEPTER PLAN & DETAILS

SHEET NO. 7 - SEDIMENT EROSION CONTROL DETAILS & NOTES

SHEET NO. 8 - LANDSCAPE PLAN & DETAILS

OWNER / DEVELOPER / CONTRACTOR

DESIGNED BY: J.P./P.R.C.

DRAWN BY: P.T./K.E.

CHECKED BY: J.P./P.R.C./K.E.

CHECKED BY: J.P./P.R.C./K.E.

CHECKED BY: J.P./P.R.C./K.E.

REVISIONS

TO 1400 0505

B.M. #2

B.M. #2

B.M. #3

SITE

SANTA BARBARA

ROAD

Vicinity Map

Site Data

TOTAL PROJECT AREA = 152,460 SQ.FT. OR 3.55 AC. +/-**EXISTING ZONING = M-1 -PROPERTY REFERENCE = PLAT NO. 12431 / L. 4746 F. 0224 EXISTING USE = VACANT -**PROPOSED USE = OFFICE / WAREHOUSE **BUILDING COVERAGE = 12,325 SQ.FT.** % OF BUILDING COVERAGE = 8.01% FLOOR AREA = 0.28 AC. +/-FLOOR AREA RATIO = 8.01% AREA TO BE PAVED PLUS BUILDING AREA = 37,435 SQ.FT. OR 0.86 AC. +/-**OPEN SPACE = 2.67 AC. +/-**TOTAL AREA OF PARKING LOT = 25,10 SQ.FT. OR 0.58 AC. +/% OF PARKING LOT COVERAGE = 16.90% **NUMBER OF PARKING SPACES REQUIRED = 31** NUMBER OF PARKING SPACES PROVIDED = 35 INCLUDING 2 HANDICAPPED -AREA TO BE DISTURBED = 58.806 SQ.FT. OR 1.35 AC. +/--AREA TO BE VEGETATIVELY STABILIZED = 21.344.40 SQ.FT. OR 0.49 AC. +/- -

SKETCH PLAN NO. = S-90-05

PRELIMINARY PLAN NO. = P-90-23

This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT. ED: HOWARD SOIL CONSERVATION DISTRICT Reviewed for Howard SCD and meets Technical Requirements APPROVED: Howard County Department of Planning and Zoning 9/21/99 DATE CHIEF, DIV**I**SION OF LAND DEVELOPMENT ADDRESS CHART PARCEL NO. | STREET ADDRESS 7011 TROY HILL DRIVE PARCEL # SUBDIVISION NAME SECTION NAME TROY HILL CORPORATE CENTER ZONE MAP | ELECT. DIST. CENSUS TRAC BLOCK # | ZONE WATER CODE CO4 SEWER CODE # 4020000 **COVER SHEET**

PREPARED BY



GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.

Civil Engineers and Land Surveyors

658 Kenilworth Drive, Suite 100
Towson, Maryland 21204
(410) 825-8120



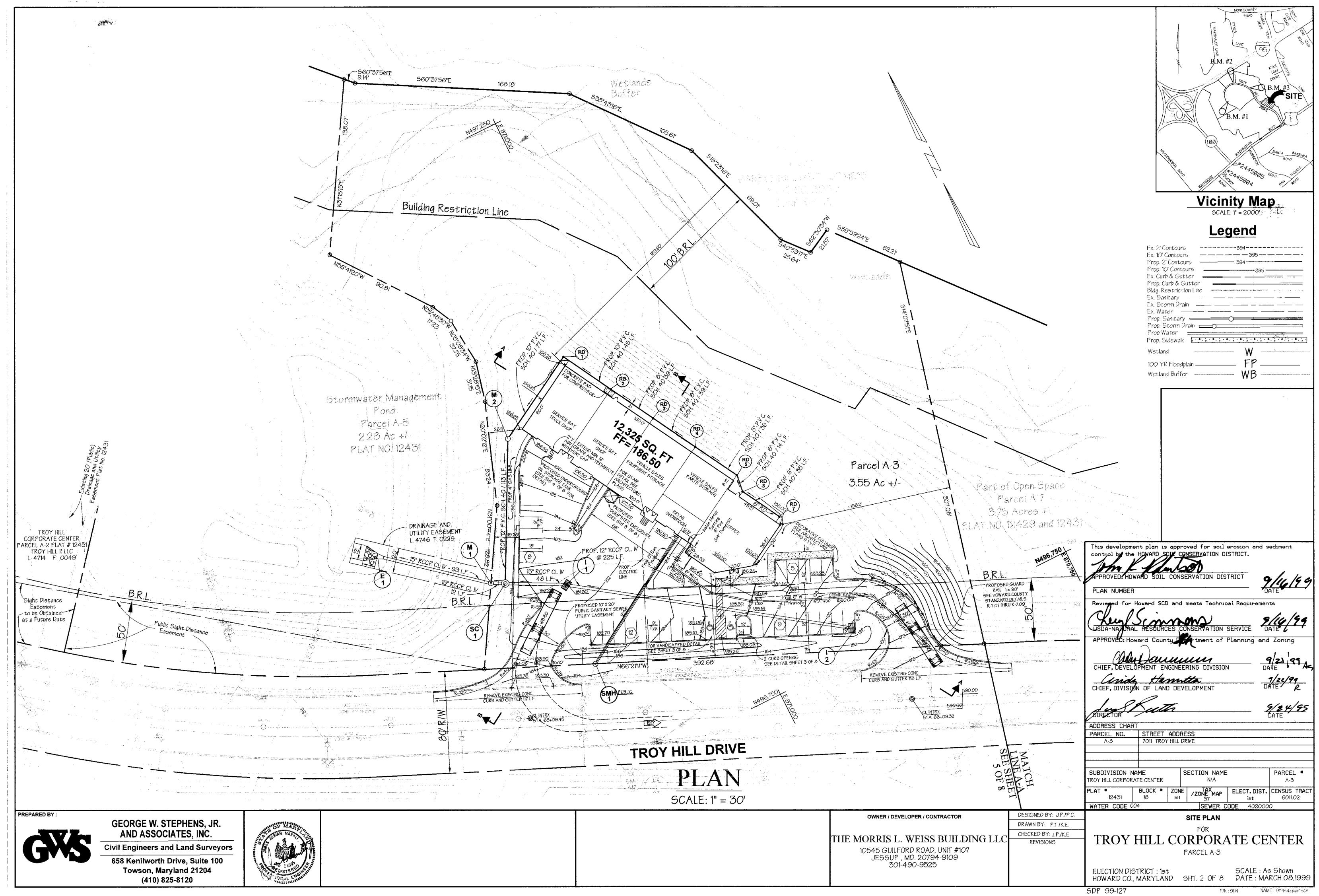
301-490-9525

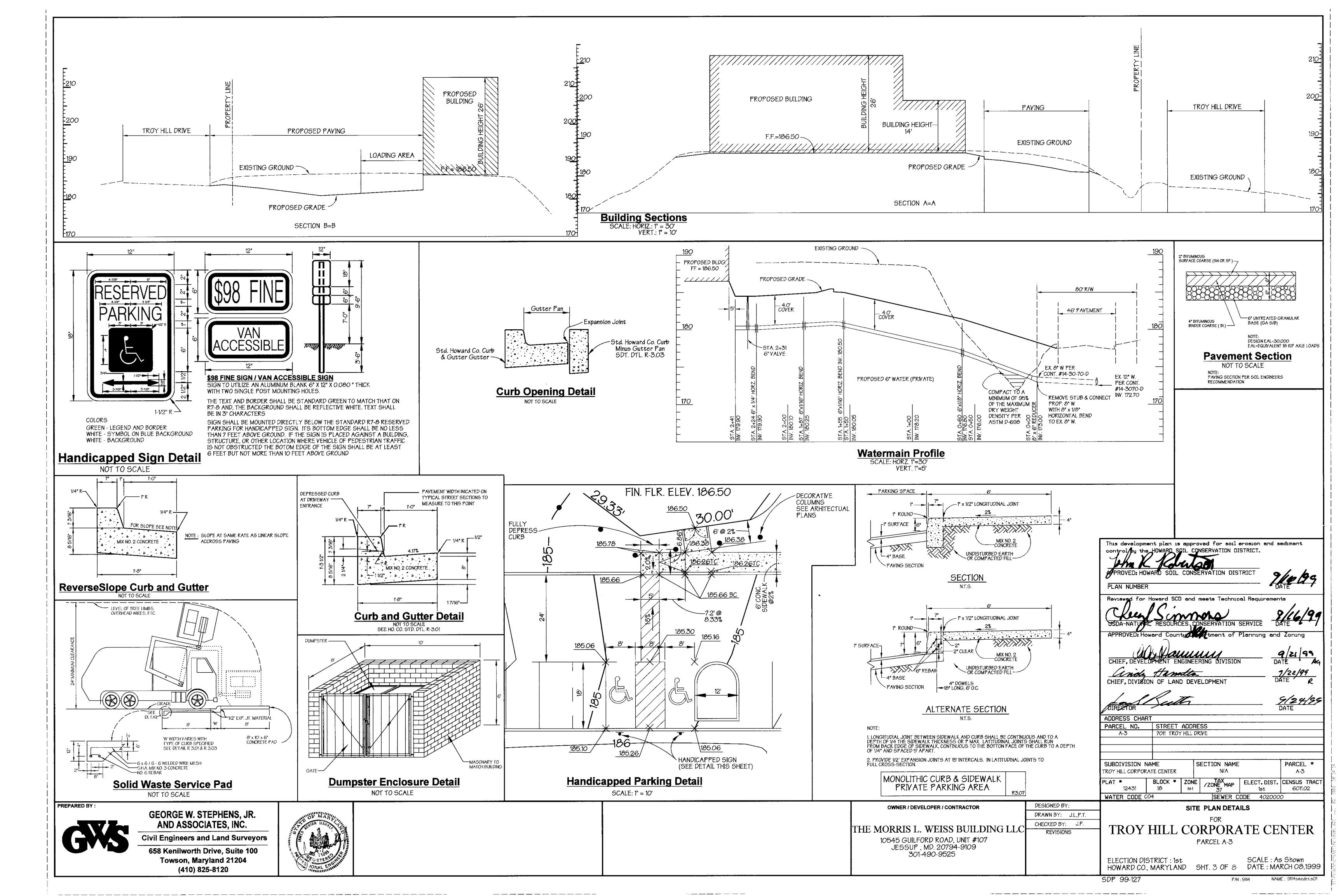
TROY HILL CORPORATE CENTER
PARCEL A-3

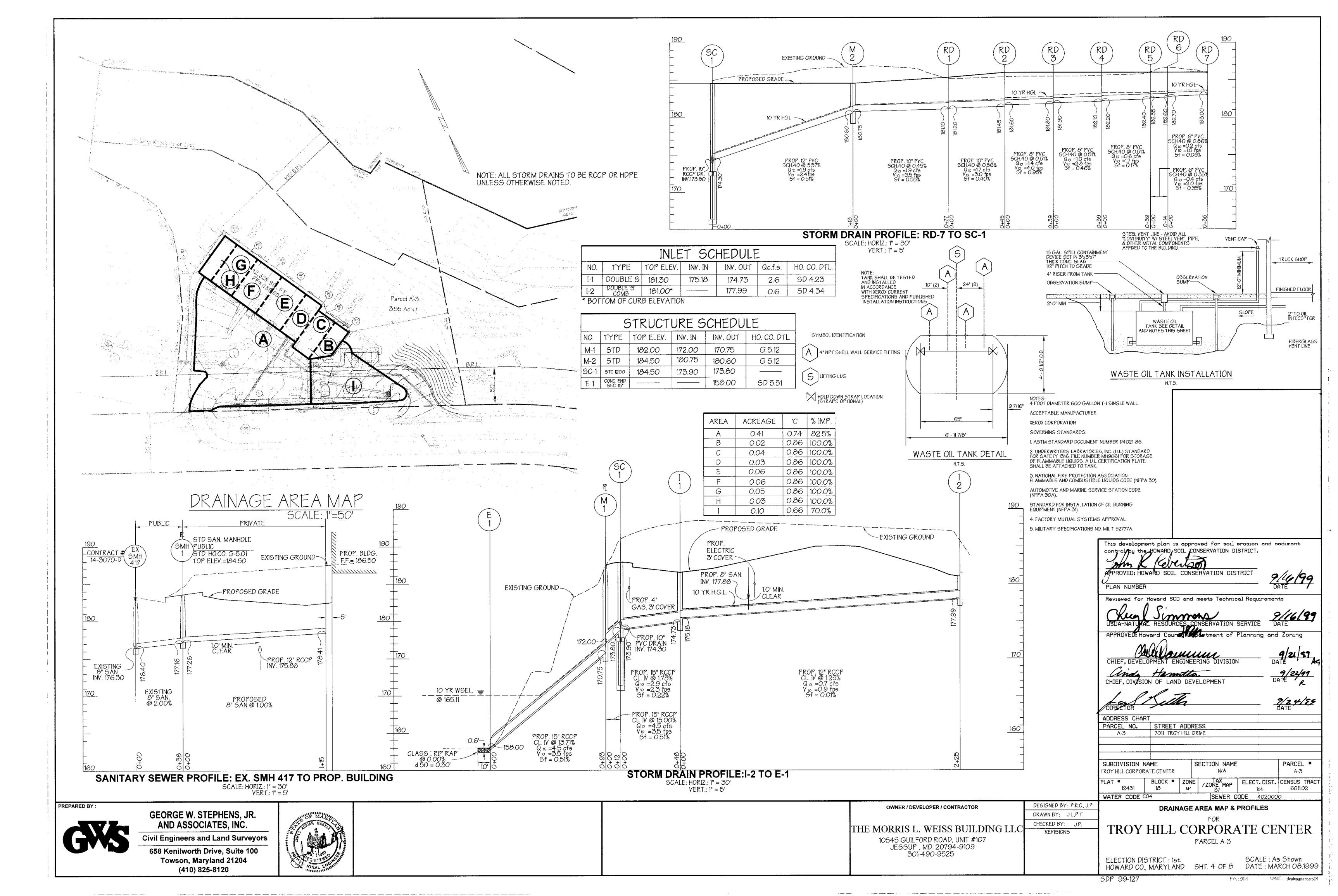
PREVIOUS FILE #'S 590-05, P90-23, F91-24, WP96-91, F96-136

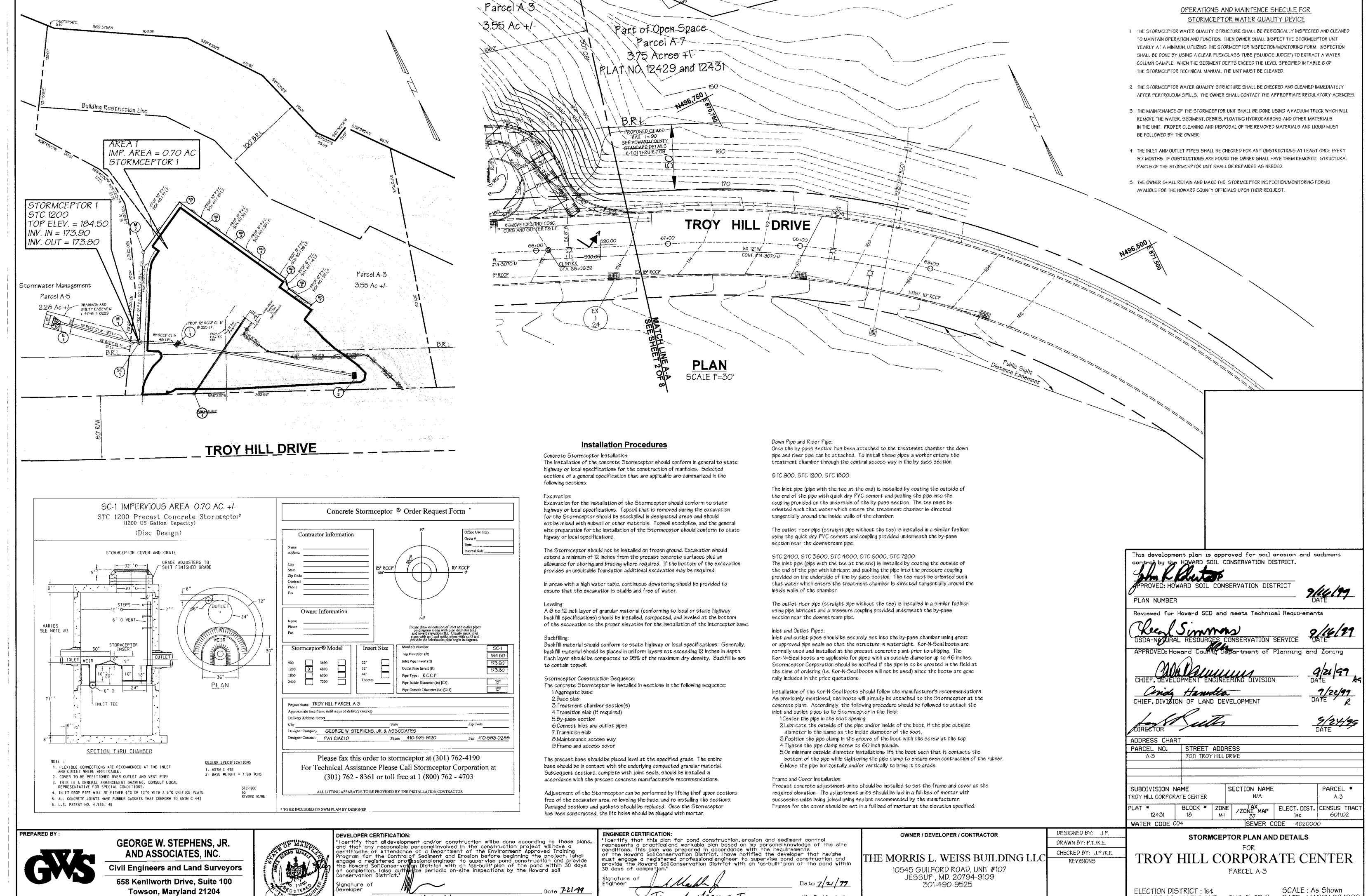
ELECTION DISTRICT: 1st SCALE: As Shown
HOWARD CO., MARYLAND SHT. 1 OF & DATE: MARCH 08,1999

P 99-127 P/N: 9114 NAME: 9114coversho





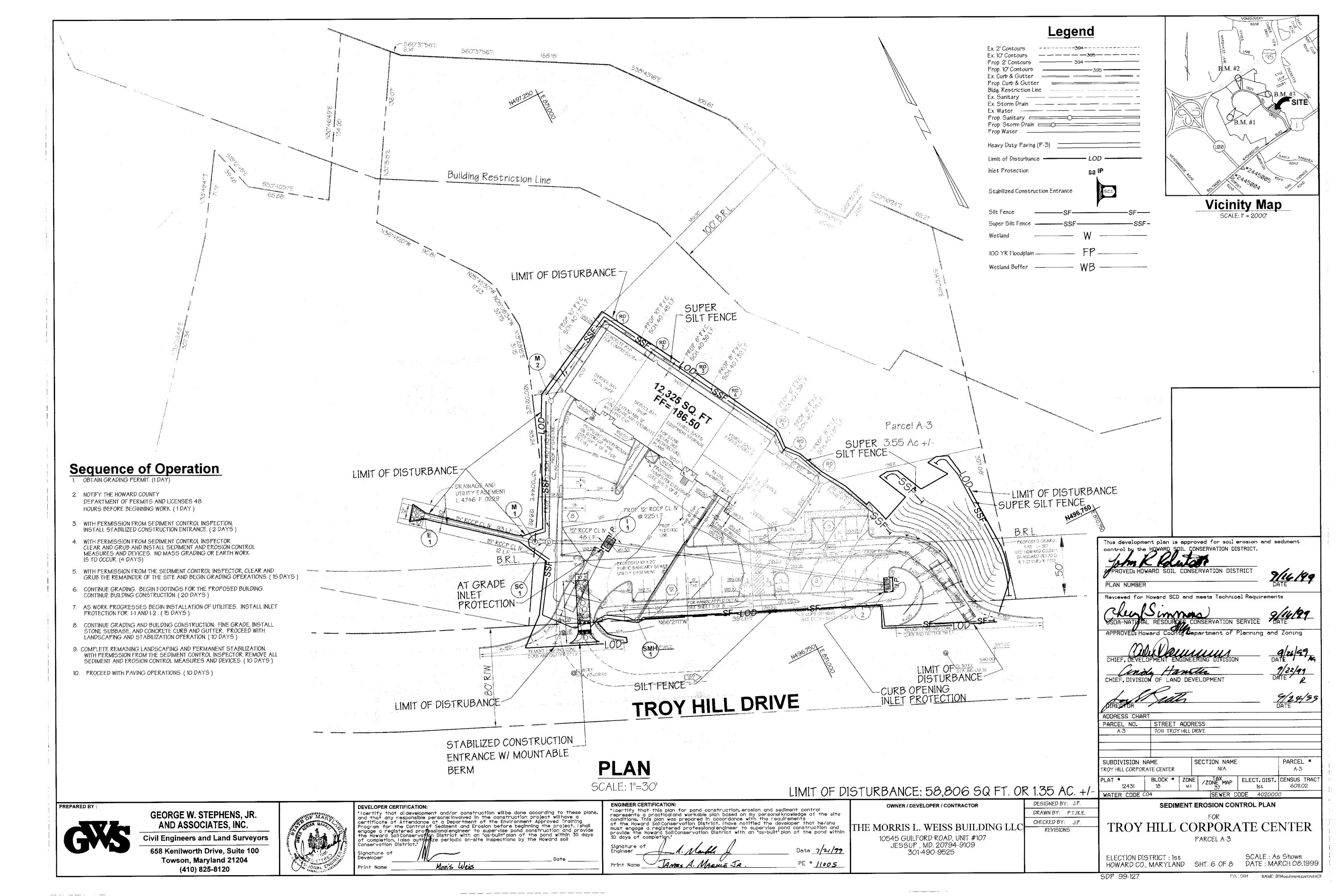




(410) 825-8120

PE # 11005

SCALE: As Shown HOWARD CO., MARYLAND SHT. 5 OF 8 DATE: MARCH 08,1999



Stabilization Specifications

Section I - Vegetative Stabilization Methods and Materials

A. Site Preparation

- I. install erosion and sediment control structures (either temporary or permanent) such as diversions, grade stabilization structures, berms, waterways, or sediment control basins.
- il. Perform all grading operations at right angles to the slope. Final grading and shaping is not usually
- III. Schedule required soil tests to determine soil amendment composition and application rates for sites having disturbed area over 5 acres

B. Soil Amendments (Fertilizer and Lime Specifications)

- 1. Soil tests must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas over 5 areas. Soil analysis may be performed by the University of Maryland or a recognized commercial laboratory. Soil samples may be taken for engineering purposes may also be used for chemical analysis.
- li. Fertilizers shall be uniform in composition, free flowing and suitable for accurate application by approved equipment. Manure may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers shall all be delivered to the site fully labeled according to the applicable state fertilizer laws and shall bear the name, trade name or trademark and warrantee of the
- III. Lime materials shall be ground limestone (hydrated or burnt lime may be substituted) which contains at least 50% total oxides (calcium oxide plus magnesium oxide). Limestone shall be ground to such fineness that at least 50% will pass through a #100 mesh sieve and 98 - 100% will pass through a #20 mesh sieve.

iv. Incorporate lime and fertilizer into the top 3 - 5° of soil by disking or other suitable means.

- v. Soll Amendments: Use only one of the following schedules
- 1. Preferred Apply 2 tons per acre dolomtic limestone (92 lbs. / 100 s.f.) and 600 lbs. per acre 10 10-10 fertilizer (14 bs. / 100 s.f.). Before seeding, harrow or disc into upper three inches of soil. At time of seeding, apply 400 bs. per acre 30-0-0 auriform fertilizer (9.1 bs / 100 s.f.).
- II. Acceptable Apply 2 tons per acre dolomtic limestone (92bs. / 1000 s.f.) and 1000 bs. per acre 10-10-10 fertilizer (23 bs. / 1000 s.f.) before seeding, harrow or disc upper three inches of soil.

C. Seedbed Preparation

1. Temporary Seeding

- a. Seedbed preparation shall consist of loosening soil to a depth of suitable agricultural or construction equipment, such as disc harrows or chisel plows or rippers mounted on construction equipment. After the soil is bosened it should not be rolled or dragged smooth but left in the roughened condition. Sloped areas (greater than 3:1) should not be tracked leaving the surface in an irregular condition with ridges running parallel to the contour of the slope
- b. Apply fertilizer and lime as prescribed on the plans.
- c. incorporate lime and fertilizer into the top 3 5' of soil by disking or other suitable means.

II. Permanent Seeding

- a. Minimum soil conditions required for permanent vegetative establishment:
- Soil oH shall be between 6.0 and 7.0. 2. Soluble salts shall be less than 500 parts per million (ppm).
- 3. The soil shall contain less than 40% clay but enough fine grained material (> 30% slit plus clay) to provide the capacity to hold a moderate amount of moisture. An exception is if lovegrass or serecta lespedeza is to be planted, then a sandy soll (<30% slit plus clay) would be acceptable. 4. Soil shall contain 1.5% minimum organic matter by weight
- 5. Soil must contain sufficient pore space to permit adequate root penetration. 6. If these conditions cannot be met by soils on site, adding topsoil is required in accordance with Section 21 Standard and Specification for Topsoil.
- b. Areas previously graded in conformance with the drawings shall be maintained in a true and even grade, then scarified or otherwise loosened to a depth of 3 - 5" to permit bonding of the topsoil to the surface area and to create horizontal erosion check slots to prevent topsoil from sliding down a slope.

c. Apply soil amendments as per soil test or as included on the plans.

d. Mix soll amendments into the top 3 · 5' of topsoll by disking or other suitable means. Lawn areas should be raked to smooth the surface, remove large objects like stones and branches, and ready the area for seed application. Where site conditions will not permit normal seedbed preparation, loosen surface soll by dragging with a heavy chain or other equipment to roughen the surface. Steep slopes (steeper than 3:1) should be tracked by a dozer leaving the soil in an irregular condition with ridges running parallel to the contour of the slope. The top 1 - 3" of soil should be loose and friable Seedbed loosening may not be necessary on newly disturbed areas

D. Seed Specifications

- I. All seed must meet the requirements of the Maryland State Seed Law. All seed shall be subject to re-testing by a recognized seed laboratory. All seed used shall have been tested within the 6 months immediately preceding the date of sowing such material in this job.
- II. Inoculant The Inoculant for treating legume seed in the seed mixture shall be a pure culture of nitrogen-fixing bacteria prepared specifically for the species. Inoculants shall not be used later than the date Indicated on the container. Add fresh Inoculant as directed on package. Use four times the used. Temperatures above 75 - 80 degrees F. can weaken bacteria and make inoculant less effective.
- NOTE: SEED TAGS SHALL BE MADE AVAILABLE TO THE INSPECTOR TO VERIFY TYPE AND RATE OF SEED USED. E. Methods of Seeding

- I. Hydroseeding: Apply seed uniformly with hydroseeder (siurry includes seed and fertilizer), broadcast or
- a. If fertilizer is being applied at the time of seeding, the application rates amounts will not exceed the following: nitrogen; maximum of 100 bs. per acre total soluble nitrogen; P205 (phosphorus): 200 bs./ac.; K2O (potasslum); 200 bs./ac.
- b. Lime use only around agricultural limestone. (Up to 3 tons per acre may be applied by hydroseeding). Normally, not more than 2 tons are applied by hydroseeding at any one time. Do not use burnt or hydrated filme when hydroseeding.
- c. Seed and fortilizer shall be mixed on site and seeding shall be done immediately and without
- II. Dry Seeding: This includes use of conventional drop or broadcast spreaders.
- a. Seed spread dry shall be incorporated into the subsoil at the rates prescribed on the Temporary or Permanent Seeding Summaries or Tables 25 or 26. The seeded area shall then be rolled with a weighted roller to provide good seed to soil contact.
- b. Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction.

III. Drill or Cultipacker Seeding: Mechanized seeders that apply and cover seed with soil.

- a. Cultipacking seeders are required to bury the seed in such a fashion as to provide at least 1/4 Inch of soll covering. Seedbed must be firm after planting.
- b. Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction.

F. Mulch Specifications (In order of preference)

- I. Straw shall consist of thoroughly threshed wheat, rye or oat straw, reasonably bright in color, and shall not be musty, moldy, caked, decayed, or excessively dusty and shall be free of noxious weed seeds as specified in the Maryland Seed Law.
- II. Wood Collulose Fiber Mulch (WCFM)

PREPARED BY:

- a. WCFM shall consist of specially prepared wood cellulose processed into a uniform fibrous physical state.
- b. WCFM shall be dyed green or contain a green dye in the package that will provide an appropriate color to facilitate visual inspection of the uniformly spread slurry.
- c. WCFM, including dye, shall contain no germination or growth inhibiting factors.

additives to form a homogeneous sturry. The muich material shall form a blotter-like ground cover, on application, having moisture absorption and percolation properties and shall cover and hold grass seed in contact with the soil without inhibiting the growth of the grass seedlings.

d. WCFM materials shall be manufactured and processed in such a manner that the wood cellulose fiber mulch

will remain in uniform suspension in water under agitation and will blend with seed, fertilizer and other

e. WCFM material shall contain no elements or compounds at concentration levels that will be phyto-toxic.

- f. WCFM must conform to the following physical requirements: fiber length to approximately 10 mm.,
- diameter approximately 1 mm., pH range of 4.0 to 8.5, ash content of 1.6% maximum and water holding capacity of 90% minimum.
- OF GRASS IS DESIRED. G. Mulching Seeded Areas - Mulch shall be applied to all seeded areas immediately after seeding.

NOTE: ONLY STERILE STRAW MULCH SHOULD BE USED IN AREAS WHERE ONE SPECIES

- I. If grading is completed outside of the seeding season, mulch alone shall be applied as prescribed in this section and maintained until the seeding season returns and seeding can be performed in accordance with these specifications.
- II. When straw mulch is used, it shall be spread over all seeded areas at the rate of 2 tons/acre. Mulch shall be applied to a uniform loose depth of between 1° and 2°. Mulch applied shall achieve a uniform distribution and depth so that the soil surface is not exposed. If a mulch anchoring tool is to be used, the rate should be increased to 2.5 tons/acre.
- iii. Wood cellulose fiber used as a muich shall be applied at a net dry weight of 1,500 bs. per acre. The wood cellulose fiber shall be mixed with water, and the mixture shall contain a maximum of 50 bs. of wood cellulose fiber per 100 gallons of water.
- H. Securing Straw Mulch (Mulch Anchoring): Mulch anchoring shall be performed immediately following mulch Mulch anchoring shall be performed immediately following mulch application to minimize loss by wind or water. This may be done by one of the following methods (listed by preference), depending upon size of area and croston hazard:
- I. A mulch anchoring tool is a tractor drawn implement designed to punch and anchor mulch into the soil surface a minimum of two (2) inches. This practice is most effective on large areas, but is limited to flatter slopes where equipment can operate safely. If used on sloping land, this practice should be used on the contour If possible.
- ii. Wood cellulose fiber may be used for anchoring straw. The fiber binder shall be applied at a net dry weight of 750 pounds/acre. The wood cellulose fiber shall be mixed with water and the mixture shall contain a maximum of 50 pounds of wood collulose fiber per 100 gallons of water.
- III. Application of liquid binders should be heavier at the edges where wind catches mulch, such as in valleys and on the crests of banks. The remainder of area should appear uniform after binder application Synthetic binders - such as Acrylic DER (Argo-Tack), DCA-70, Petroset, Terra Tax II, Terra Tack AR or other approved equal may be used at rates recommended by the manufacturer to anchor mulch.
- iv. Lightweight plastic netting may be stabled over the muich according to manufacturer's recommendations. Netting is usually available in rolls 4' to 15' feet wide and 300 to 3000 feet long. Section II - Temporary Seeding

Vegetation - annual grass or grain used to provide cover on disturbed areas for up to 12 months. For longer duration of vegetative cover, Permanent Seeding is required.

- A. Seed Mixtures Permanent Seeding
- i, select one or more off the species or mixtures listed in Table 25 for the appropriate Plant Hardines: Zone (from figure 5) and enter them in Permanent Seeding Summary below, along with application rates and seeding dates. Seeding depths can be estimated using Table 26. If this Summary is not put on the construction plans and completed, then Table 25 must be put on the plans. Additional planting specifications for exceptional sites such as shorelines, streambanks, dunes or for special purposes such as wildlife or asthetic treatment may be found in USDA-SCS Technical Field Office Guide, Section 342 - Critical Area Planting. For special lawn maintainance areas, see Sections IV Sod
- II. For sites having disturbed areas over 5 acres, the rates shownon this table shall be deleted and the rates recommended by the testing agency shall be written in
- III. For areas recieving low maintenance, apply ureaform fertilizer (46-0-0) at 3-1/2 bs/1000 sq. ft. (150 bs/ac), in addition to the above soil ammendments shown in the table below, to be performed at the time of seeding

Section III - Permanent Seeding

- Seeding grass and legumes to establish ground cover for a minimum period of one year on disturbed areas generally receiving low maintenance. A. Seed Mixtures - Permanent Seeding
- i. selections or more off the species or mixtures listed in Table 25 for the appropriate Plant Hardiness Zone (from figure 5) and enter them in Permanent Seeding Summary below, along with application rates and seeding dates. Seeding depths can be estimated using Table 26. If this Summary is not out on the construction plans and completed, then Table 25 must be out on the plans. Additional planting specifications for exceptional sites such as shorelines, streambanks, dunes or for special purposes such as wildlife or asthetic treatment may be found in USDA-SCS Technical Field Office Guide, Section 342 - Critical Area Planting. For special lawn maintainance areas, see Sections IV Sod
- II. For sites having disturbed areas over 5 acres, the rates shownon this table shall be deleted and the rates recommended by the testing agency shall be written in.
- III. For areas recleving low maintenance, apply ureaform fertilizer (46-0-0) at 3-1/2 lbs/1000 sq. ft. (150 bs/ac), in addition to the above soil ammendments shown in the table below, to be performed at the time of seeding

recommended rate when hydroseeding. NOTE: it is very important to keep inoculant as cool as possible until Section IV - Sod: To provide quick cover on disturbed areas (2:1 grade or steeper).

- I. Class of turfgrass sod shall be Maryland or Virginia State Certifled or Approval. Sod labels shall be made available to the lob foreman and inspector
- II. Sod shall be machine cut at a uniform soil thickness of 3/4*, plus or minus 1/4*, at the time of cutting. Measurement for thickness shall exclude top growth and thatch. Individual pieces of sod shall be cut to the suppliers width and length. Maximum allowable deviation from standard widths and lengths shall be 5 percent. Broken pads and torn or uneven ends will not be acceptable.
- ill. Standard size sections of sod shall be strong enough to support their own weight and retain their size and shape when suspended vertically with a firm grasp on the upper 10 percent of the section.
- ly. Sod shall not be harvested or transplanted when moisture content (excessively dry or wet) may adversely affect its survival.
- v. Sod shall be harvested, delivered, and installed within a period of 36 hours. Sod not transplanted within this period shall be approved by an agronomist or soil scientist prior to its installation
- vi. Site Preparation: Fertilizer and Lime application rates will be determined by soil test. Under unusual circumstances where there is insufficent time for a complete soil test, fertilizer and lime may be applied in amounts shown under vi-b, below.
- a. Prior to sodding, the surface will be cleared of all trash, debris, and of all roots, brush, wire, grade stakes and other objects that would interfere with planting, fertilizing, or maintenance operations.
- b. Where soil is acid or composted of heavy clays, ground limestone will be spread at the rate of 2 tons per acre(100 lbs. / 1000 s.f.), in all soils 1000 lbs. per acre (25 bs. / 1000 s.f.) of 10-10-10 fertilizer or equivalent will be uniformly applied and mixed into the top thre inches of soil with the required time.
- c. All areas recieving sod will be uniformly fine graded. Hard packed earth will be scarified prior to placement of sod.

B. Sod Installation

- I. During periods of excessively high temperature or in areas having dry subsoil, the subsoil shall be lightly irrigated immediately prior to laying the sod.
- ii. The first row of sod shall be laid in a straight line with subsequent rows placed parallel to and tightly wedged against each other. Lateral joints shall be staggered to promote more uniform growth and strength. Ensure that sod is not stretched or overlapped and that all Joints are butted tight in order to prevent voids which would cause drying of the roots.
- iii. Wherever possible, sod shall be laid with the long edges parallel to the contour and with staggering joints. Sod shall be rolled and tamped, pegged or otherwise secured to prevent slippage on slopes and to ensure solld contact between sod roots and the underlying soll surface.
- iv. Sod shall be watered immediately following rolling or tamping until the underside of the new sod pad and soil surface below the sod are thoroughly wet. The operations of laying, tamping and irrigating for any piece of sod shall be completed within eight hours.

the first week and in sufficient quantities to maintain moist soil to a depth of 4". Watering should be

- I. In the absence of adequate rainfall, watering shall be performed daily or as often as necessary during done during the heat of the day to prevent wilting.
- II. After the first week, sod watering is required as necessary to maintain adequate moisture content.
- III. The first mowing of sod should not be attempted until the sod is firmly rooted. No more than 1/3 of the arass leaf shall be removed by the initial cutting or subsequent cuttings. Grass height shall be maintained between 2" and 3" unless otherwise specified.

Section IV - Turfgrass Establishment

- Areas where turfgrass may be desired include lawns, parks, playgrounds, and commercial sites which will receive a medium to high level of maintenance. Areas to receive seed shall be tilled by disking or other approved methods to a depth of 2 to 4 lnches, leveled and raked to prepare a proper seedbed. Stones and debris over 11/2 inches in diameter shall be removed. The resulting seedbed shall be in such condition that future mowing of grasses will pose no difficulty.
- NOTE: Choose certified material. Certified material is the best guarantee of cultivar purity. The certification program of the Maryland Department of Agriculture. Turf and Seed Section, provides a reliable means of consumer protection and assures a pure genetic line.

A. Turfgrass Mixtures

C. Sod Maintenance

- i. Kentucky Bluegrass Fall sun mixture For use in areas that receive intensive management. Irrigation required in the areas of central Maryland and eastern shore. Recommended Certified Kentucky Bluegrass Cultivars Seeding Rate; 1.5 to 2.0 pounds/1000 square feet. A minimum of three bluegrass cultivars should be chosen ranging from a minimum of 10% to a maximum of 35% of the mixture by weight.
- II. Kentucky Bluegrass/Perennial Rye Full sun mixture For use in full sun areas where rapid establishment is necessary and when turf will receive medium to intensive management. Certified Perennial Ryegrass Cultivars/ Certified Kentucky Bluegrass Seeding rate: 2 pounds mixture/1000 square feet. A minimum of 3 Kentucky Bluegrass Cultivars must be chosen, with each cultivar ranging from 10% to 35% of
- III. Tall Fescue/Kentucky Bluegrass Full sun mixture For use in drought prone areas and/or for greas receiving low to medium management in full sun to medium shade. Recommended mixture includes; certified Tall Fescue Cultivars 95 - 100%, certified Kentucky Bluegrass Cultivars 0 - 5%. Seeding rate 5 to 8 \$./1000 square feet. One or more cultivars may be blended.
- lv. Kentucky Bluegrass/Fine Fescue Shade Mixture For use in areas with shade in Bluegrass lawns. For establishment in high quality, intensively managed turf area. Mixture includes; certified Kentucky Bluegrass Cultivars 30 - 40% and certified Fine Fescue and 60 - 70%. Seeding rate: 11/2 - 3 bs./1000 square feet. A minimum of 3 Kentucky bisegrass cultivars must be chosen with each cultivar ranging from a minimum of 10% to a maximum of 35% of the mixture by weight.

NOTE: Turfgrass varieties should be selected from those listed in the most current University of Maryland Publication, Agronomy Mimeo #77, "Turfgrass Cultivar Recommendations for Maryland".

B. Ideal times of seeding

- Western MD: March 15-June 1, August 1-October 1 (Hardiness Zones 5b, 6a)
- Central MD: March 1-May 15, August 15-October 15 (Hardiness Zones 6b)
- Southern MD, Eastern Shore: March 1-May 15, August 15-October 15 (Hardiness Zones 7a, 7b) C. Irrigation
- If soil moisture is deficient, supply new seedings with adequate water for plant growth (1/2" 1" every 3 to 4 days depending on soil texture) until they are firmly established. This is especially true when seedings are made late in the planting season, in abnormally dry or not seasons, or on adverse sites.

D. Repairs and Maintenance

- inspect all seeded areas for failures and make necessary repairs, replacements, and reseedings within the planting season.
- i. Once the vegetation is established, the site shall have 95% groundcover to be considered adequately
- II. If the stand provides less than 40% ground coverage, reestablish following original lime, fertilizer. seedbed preparation and seeding recommendations lii. If the stand provides between 40% and 94% ground coverage, overseeding and fertilizing using half of
- the rates originally applied may be necessary. IV. Maintenance fertilizer rates for permanent seedings are shown in Table 24. For lawns and other medium ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES. to high maintenance turfgrass areas, refer to the University of Maryland publication "Lawn Care in Maryland* Bulletin No. 171.

¥	SEED MEX USE CERTIFIED MATERIAL	PLANTING RATE		5ME	USDA KARDINESS	RECOMMENDED PLANTING DATES						ŀ		
X	F AYALABLE)	LBS/AC	LBS/1000 50. Ft.	CONDITIONS	ZONES	5/1- 5/15	5/55 - 6/1	5/16 ·	6/2 - 7/31	8/1- 10/1	6/15 - 10/15	8/15 · 11/16	É	
	TALL FESCUE (75%)	150	3.4	MOIST	51		X			X				
	CANADA BLUEGRASS (IOL)		•	TO DRY	62		X			Х	Γ			
1	KENTUCKY BLUEGRASS (10%) REDTOP (5%)	i	ŀ		6>	X					X]	
1	ACDIDI (OB)				72	X						X	_	
					7≽	X						×		
	KENTUCK BLUEGRASS (50%) CREEPING RED FESCUE OR	150	3. 1	MOIST TO	5b		Х			X			ß	
2	AHARD FESCUE (40%)			MODERATELY DRY TO DRY	6.		Χ			χ	L			
_	REDTOP (10%)		<u> </u>		6b	Х					X			
	TALL FESCUE (86%)	25	2.9	MOIST	58		χ			Х				
	PERENNEAL RYEGRASS (1011) KENTUCKY BLUEGRASS (511)	35 50	23	TODRY	61		X			X				
3	KCHIOCKI DEGLOKASS (SE)				65	X					X			
					7 A	X						×		
_ :					7B	X					Ī	X	L	
Ī	RED FESCUE OR	60	.92	MOIST	5Þ		X			Х			P	
4	CHEWINGS FESCUE (80%) PERENNAL RYEGRASS (20%)	60 15	.92 34	TO DRY	6.		X			X				
					66	X	<u></u>				X			
1	TALL FESCUE (86%) OR	110	2.5	MOIST	5b		Х			X			E	
5	PERENNIAL RYEGRASS (50%) PLUS CROWNVETCH OR	20 20	46	TO DRY	62		Х			X				
٥.	FLATPEA	žŏ	46		6≽	×					X			
			ŀ		7 2	Х	<u> </u>			<u> </u>		X	1	
					75	χ						X	l	
-	Weeping Lovegrass (17%)	20	.09	PRY TO	62	X		X				$ldsymbol{le}}}}}}}}}$	F	
6	SERECIA LESPEDEZA (83%)	20	.46	YERY DRY	7 e	χ	L	X		L				
		L		<u> </u>	7⊅	χ		X						
	TALL FESCUE (65%)	110	2.5 .07	DRY TO	56		X	<u> </u>	Х	X		<u> </u>	\Box	
,	WEEPING LOVEGRASS (2%)	20	46	YERY DRY	62	Щ	X		χ	Х			l	
1	SERECIA LESPEDEZA (15%)				6≽	Х		X			X		G	
	, ,				7:	Х		X	L_			X		
_				<u></u>	75	X.		Х		Щ		X		
	REED CANARYGRASS (75%)	4() 3	.92	WET TO	55	L	Х	L		Х			_ - -	
	REDTOP (6%) PLUS BROSFOOT TREEFOR (19%)	ю	.07 23	MODERATELY Dry	62		Х			X				
ð	**************************************			Γ'''	61	X					Х			
					72	X						Х		
					75	Х		<u> </u>	L.			X	L	
	TALL FESCUE (86%)	125 10	29 25 23	WET TO	5 b		X			X			l	
9	Poa tragalis (7%) Birdsfoot treefor (7%)	1 10	ž	23	MODERATELY Dry	18Y 672		х	Ц_		X	<u> </u>		_
	:				65	X		L		L	X		1	
ı	TALL FESCUE (80%)	12 <i>0</i> 30	5.4 .69	WET TO DRY	5b		X	<u> </u>		X			j	
	HARD FESCUE (20%)	20	.09	1	€ 2		X			X	ــــــ			
Ю		l			€₽	×		Ь			X			
		l			7 e	X	Ц	<u> </u>		Ь	<u> </u>	Х		
_			<u> </u>	<u> </u>	75	LX.	Ь	ـــــ		Ь_	Ц.	X		
1	HARD FESCUE (100%)	75	17	MOEST TO	5▶		x	<u> </u>		X		Ь	\exists_{κ}	
11		l		low.1	6.₽		X			Х				

6b X X X X A USED BY SHA ON SLOPED AREAS. ADD A LEGUME FOR SLOPES > THAN 3:1. 8. USED IN MEDIAN AREAS BY SHA, SHADE TOLERANT. C. POPULAR MEX - PRODUCES FERMANENT GROUNDCOVER QUICKLY. BLUEGRASS THICKENS STAND. D. BEST USE ON SHADY SLOPES NOT ON POORLY DRAINED CLAYS. E. USE ON LOW MAINTENANCE, STEEP SLOPES, USE TALL FESCUE IN DRAUGHTY CONDITIONS, CROWN VETCH BEST FOR 56, 64, 66 F. SUITABLE FOR SEEDING IN MID-SUMMER.

H. USE ON POORLY DRAINED SOILS - DITCHES OR WATERWAYS, BIRDSFOOT TREEFOILS BEST FOR ZONES 56, 6a, ABOYE 2,000 FEET. LUSE IN AREAS OF MOIST SHADE. POA TRIMALIS THRIVES IN WET SHADY AREAS.

J. TALL FESCUE MAY BE SEEDED ALONE, THE HARD FESCUE PROVIDES BETTER SHADE TOLERANCE AND PRODUCES A BETTER STAND. X. LOW FERTILITY GRASS, REQUIRES INFREQUENT MOWING, GOOD COMPANION FOR WILDFLOWERS PERMANENT SEEDING RATES FERTILIZER RATE LIME RATE (10-20-20)

> (2.0 L8/(000 S.F.) (4.0 LB/1000 S.F.) (4.0 LB/1000 S.F.) FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES THE RATES SHOWN ABOVE FOR PERMANENT SEEDING SHALL BE DELETED AND THE RATES RECOMMENDED BY THE SOIL TESTING AGENCY SHALL BE USED. SOIL TESTING SHALL BE PERFORMED AT THE TIME OF FINE GRADING AND THE RESULTS SHALL BE FURNISHED TO THE SEDIMENT CONTROL INSPECTOR

175 LB/AC

Sediment Control Notes

- 1. A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (313-1855). 2. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING
- *1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL! AND REVISIONS THERETO 3. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:
- CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1 B) 14 DAYS FOR ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- 4. IF REQUIRED BY SEDIMENT CONTROL INSPECTOR SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH YOU. 1 CHAPTER 7, OF THE HOWARD COUNTY DESIGN MANUAL STORM DRAINAGE.
- 5 AS DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED. ABOVE IN ACCORDANCE WITH THE "1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL* FOR PERMANENT SEEDING, SOD, TEMPORARY SEEDING AND MULCHING (SEC G). TEMPORARY STABILIZATION WITH MULCH ALONE SHALL ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT 6. ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS
- BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR. 7. SITE ANALYSIS: TOTAL AREA OF SITE 3.55 ACRES AREA DISTURBED 135 ACRES AREA TO BE ROOFED OR PAYED 0.86 ACRES
- TOTAL CUT 1,100 C.Y TOTAL FILL 4,400 C.Y. (INCLUDES 15% COMPACTION)
- OFFSITE WASTE/BORROW AREA LOCATION: EXCESS OUT SHALL BE TAKEN TO A SITE WITH AN OPEN GRADING PERMIT. 8. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY
- FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE). ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS SEDIMENT CONTROL INSPECTOR 10. ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS. BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE
- 11. TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER

	Table 27 Geo	textile Fabrics	
CLASS	APPARENT OPENING SIZE MM. MAX.	GRAB TENSILE STRENGTH LB. MIN.	BURST STRENGTH PSI. MIN.
Α	0.30 **	250	500
В	0.60	200	320
С	0.30	200	320
Ð	0.60	90	145
E	0.30	90	145
F (SILT FENCE)	0.40-0.80*	90	190

24.0 MATERIALS SPECIFICATIONS

" US Std. Steve CW-02215 "" 0.50 MM. MAX. FOR SUPER SILT FENCE The properties shall be determined in accordance with the following procedures

-Grab tensile strength ASTM D 1682: 4 x 8° specimen, 1x2° clamps, 12° /min. strain rate in both principal directions of geotextile fabric. ASTM D 3786 -Burst strenath

- Apparent opening size MSMT 323

The fabric shall be liter to commonly encountered chemicals and hydrocarbons, and will be not and mildew resistant. It shall be manufactured from fibers consisting of long chain synthetic polymers, and composed of a minimum of 85% by weight of polyolephins, polyesters, or polymides. The geotextile fabric shall resist deterioration from ultraviolet exposure In addition, Classes A through E shall have a O.O! cm./sec. minimum permeability when tested in accordance with MSMT 507,

Class F geotextile fabrics for silt fence have a 50 lb./in, minimum tensile strength and a 20 lb./in, minimum tensile modules when tested in accordance with MSMT 509. The material shall also have a 0.3 gal./ft. /min. flow rate and seventy-five percent (75%) minimum filtering efficiency when tested in accordance with MSMT 322.

and an apparent minimum clongation of 20 percent (20%) when tested in accordance with the grab tensile strength requirements

Geotextile fabrics used in the construction of silt fence shall resist deterioration from ultraviolet exposure. The fabric shall contain sufficient amounts of ultraviolet ray inhibitors and stabilizers to provide a minimum of 12 months of expected usable construction life at a temperature range of O to 120 degrees F.

represents a practical and workable plan based on my personel knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. Thave notified the developer that he/she must engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an 'as-built' plan of the pond within

'Icertify that this plan for pond construction, erosion and sediment control

TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE " X 4" SPACER A) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT

MAX. DRAINAGE AREA = 1/4 ACRE

Construction Specifications

Attach a continuous piece of wire mesh (30" minimum width by throat length plus ') to the 2" x 4" well (measuring throat length plus 2') as shown on the standard . Place a continuous piece of Geotextile Class E the same dimensions as the wire

mesh over the wire mesh and securely attach it to the 2" x 4" weir-

DETAIL 33 - SUPER SILT FENCE

SIX (6) GAUGE OR HEAVIER-CHAIN LINK FENCING

fabric and 6 foot length poets.

2. The posts do not need to be set in concrete.

GEOTEXTILE CLASS A FILTER CLOTH -

EMBED FILTER CLOTH 8"

Construction Specifications

3. Chain link fence shall be fastened securely to the fence posts with wire

The chain link fence shall be six (6) gauge or heavier.

5. Filter cioth shall be embedded a minimum of 8" into the ground-

ties or stopies. The lower tension wire, brope and trues rods, drive

anchors and post caps are not required except on the ends of the fence

4. Filter aloth shall be fastened securely to the chain link fence with ties

6. When two sections of geotextile fabric adjoin each other, they shall be

Maintenance shall be performed as needed and slift buildups removed when

"buiges" develop In the slit fence, or when slit recohes 50% of the fence heigh

' MINIMUM LENGTH

MODIFIED

I- Fenoing shall be 42" in height and constructed in accordance with the latest Maryland State Highway (SMA) Details for Chain Link Fenoing. The SMA specifications for a 6 foot fence shall be used, substituting 42 inch

LAY FILTER CLOTH IN BOTTOM

OF 24" MIN. WIDE TRENCH

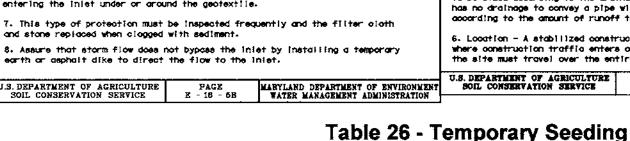
is" MINIMU

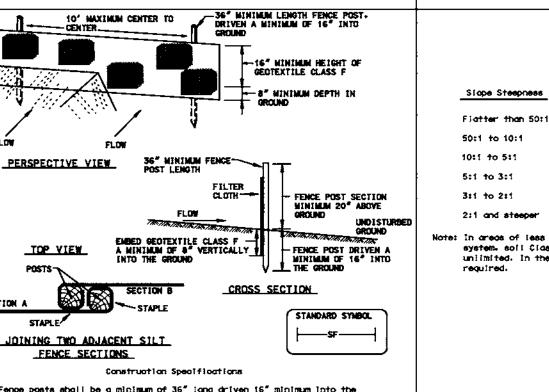
E 8" MINIMUM

STANDARD SYMBOL

DIAMETER GALVANIZED OF

- 5. Securely nall the 2" X 4" welr to a 9" long vertical spacer to be located between the well and the Inlet face (max. 4' apart). . Place the assembly against the inlet throat and nall (minimum 2' lengths of 2" x 4" to the top of the weir of appear locations). These 2" x 4" anothers shall extend across the inlet top and be held in place by sandbags or differnate weight. 5. The assembly shall be placed so that the end spacers are a minimum t' beyond
- both ends of the throat opening. 6. Form the $V_2'' \times V_2'''$ wire much and the geotextile fabric to the concrete gutter ogainst the face of the curb on both sides of the Inlet. Place of ear $\frac{3}{4}$ x $t^{1/2}$ stone over the wire much and geotextile in such a manner to prevent water from entering the injet under or ground the geotextile.
- and stone replaced when clagged with sediment-8. Assure that storm flow does not bypose the injet by installing a temporary





Test: MSMT 509

t. Fence posts shall be a minimum of 36" long driven to" minimum into the ground. Wood poets shall be $1^{1/2}$ x $1^{1/2}$ square (minimum) out, or $1^{3/2}$ diameter (minimum) round and shall be of sound quality hardwood. Steel poets will be standard T or U section weighting not less than 1-00 pand per linear foot Sectantile shall be fastened securely to each fence post with wire ties. or stoples at top and mid-section and shall meet the following regularements 50 lbs/in (min.) Test: MSMT 509

DETAIL 22 - SILT FENCE

3. Where ends of geotextile fabric come together, they shall be overlapped. folded and stapled to prevent sediment bypass 4. Stift Fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reached 50% of the fabric height-

20 1ba/in (min.)

0.3 gal ft*/ minute (max.) Test: MSMT 32

DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE CURB INLET PROTECTION (COG OR COS INLETS ** GEOTEXTILE CLASS 'C'-PROFILE

> PLAN VIEW STANDARD SYMBOL

Tensile Modulus

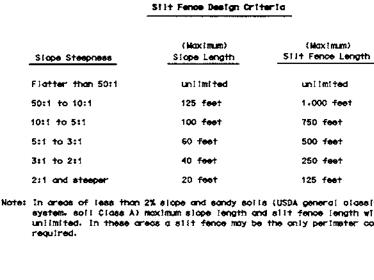
Filtering Efficiency 75% (min.)

2. Width - 10' minimum, should be flored at the existing road to provide a turning 5. Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. ###The plan approval authority may not require single family.

5. Stone – crushed aggregate (2" to 3") or realiatmed or recycled concrete.

. Length - minimum of 50' (#30' for single residence lot).

- equivalent shall be placed at least 6" deep over the length and width of the 5. Surface Water — all surface water flowing to ar diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mountable berm with 5:1 elopes and a minimum of 6" of stone over the pipe. Pipe
- to be sized according to the drainage. When the SCE is located at a high spot an according to the amount of runoff to be conveyed. A 6" minimum will be required. 6. Location - A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entro

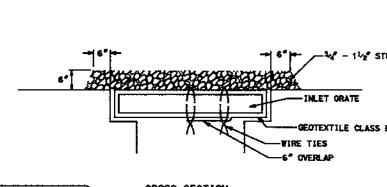


SILT FENCE

system, soil Class A) maximum slope length and slit fence length will be unlimited. In these cress a slift fence may be the only perimeter control

S. DEPARTMENT OF AGRICULTURE PAGE MARYLAND DEPARTMENT OF ENVIRONMENT U.S. DEPARTMENT OF AGRICULTURE PAGE MARYLAND DEPARTMENT OF ENVIRONMENT SOIL CONSERVATION SERVICE E - 15 - 34 TATE MANAGEMENT ADMINISTRATION SOIL CONSERVATION SERVICE E - 15 - 34 TATE MANAGEMENT ADMINISTRATION DETAIL 23B - AT GRADE INLET PROTECTION

GEOTEXTILE CLASS E PLAN/CUT AWAY VIEW



MAX. DRAINAGE AREA = 1/4 ACRE

Construction Specifications 1. Lift grate and wrap with Geotextile Class E to completely cover all openings. then eet grate back in place

ASIP

J.S. DEPARTMENT OF AGRICULTURE PAGE MARTLAND DEPARTMENT OF ENVIRONMENT SOIL CONSERVATION SERVICE 2 - 18 - 54 VATER MANAGEMENT ADMINISTRATION

This development plan is approved for soil erosion and sediment

y the HOWARD SOIL CONSERVATION DISTRICT.

ROVED: HOWARD SOIL CONSERVATION DISTRICT

2. Place 3/ to 11/2" stone: 4"-6" thick on the grate to secure the fabric and

PAGE MARYLAND DEPARTMENT OF ENVIRONMEN
F - 17 - S VATER MANAGEMENT ADMITSTRATION

B.U. (140 lbs. FOXTAIL MILL

Rates, Depths, and Dates

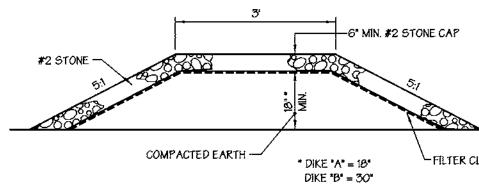
Fertilizer Rates Temporary Seeding 600 **b**/ac (15b/1000 s.f.)

Permanent Seeding

DRAWN BY: P.T./K.E.

CHECKED BY: J.P./K.E.

REVISIONS



Stone Mountable Berm

PLAN NUMBER Reviewed for Howard SCD and meets Technical Requirements RESOURCES CONSERVATION SERVICE APPROVED: Howard County Department of Planning and Zoning CHIEF. DIVISION OF LAND DEVELOPMENT ADDRESS CHART STREET ADDRESS 7011 TROY HILL DRIVE SUBDIVISION NAME SECTION NAME PARCEL 4 ROY HILL CORPORATE CENTER LAT * | ELECT. DIST. | CENSUS TRACT BLOCK * 12431 18 6011.02 1st WATER CODE CO4 **SEWER CODE** 4020000 DESIGNED BY: J.P./K.E. SEDIMENT AND EROSION CONTROL NOTES AND DETAILS

TROY HILL CORPORATE CENTER

PARCEL A-3

ELECTION DISTRICT: 1st HOWARD CO., MARYLAND SHT. 7 OF 8

NAME: 9114sedimentcontdlt.s01

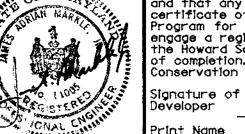
Towson, Maryland 21204 (410) 825-8120

GEORGE W. STEPHENS, JR.

AND ASSOCIATES, INC.

Civil Engineers and Land Surveyors

658 Kenilworth Drive, Suite 100



DEVELOPER CERTIFICATION: licertify that alldevelopment and/or construction willbe done according to these plans

and that any responsible personel involved in the construction project will have a certificate of Attendance at a Department of the Environment Approved Training rogram for the Controlof Sediment and Erosion before beginning the project. Ishall angage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. Laiso authorize periodic on-site inspections by the Howard soil Conservation District.

30 days of completion."

ENGINEER CERTIFICATION:

2 TONS/AC

Date 7/2//99 JAMES A. MARKLE JR PE # //005

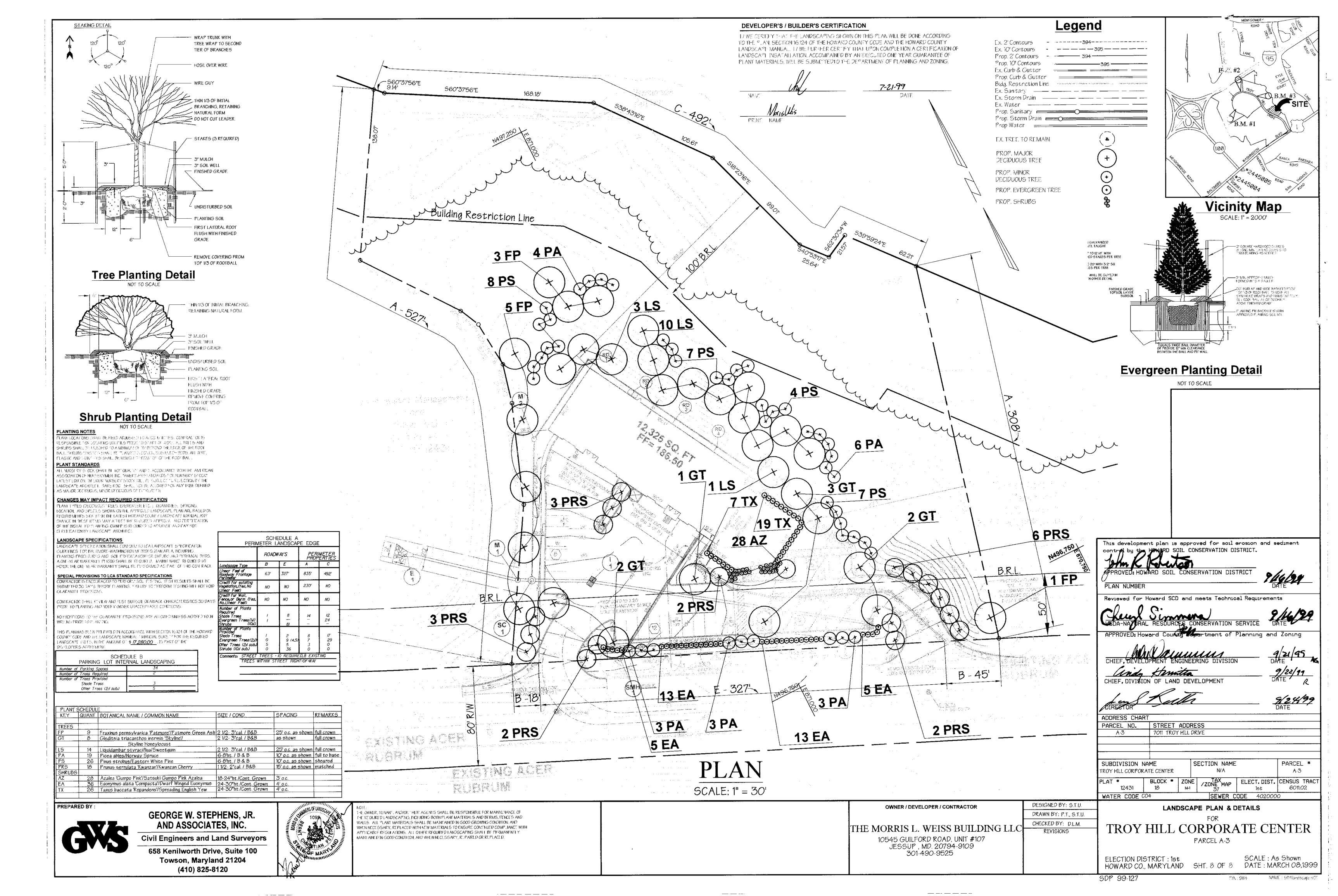
10545 GUILFORD ROAD, UNIT #107 JESSUP, MD. 20794-9109 301-490-9525

OWNER / DEVELOPER / CONTRACTOR

THE MORRIS L. WEISS BUILDING LLO

SDP 99-127

SCALE : As Shown DATE: MARCH 08,1999



Construction Notes

- 1. THE CONTRACTOR SHALL NOTIFY THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS CONSTRUCTION INSPECTION DIVISION AT 410-313-1880 AT LEAST 24 HOURS PRIOR TO STARTING ANY OF THE WORK SHOWN HEREON.
- 2. ALL AREAS NOT BEING PAYED OR RECEIVING BUILDING COVERAGE SHALL BE STABILIZED IN ACCORDANCE WITH THE PLANS APPROVED BY THE HOWARD SOIL CONSERVATION DISTRICT.
- 3. THE CONTRACTOR SHALL NOTE THAT IN CASE OF DISCREPANCY BETWEEN ANY SCALED DIMENSIONS AND THE FIGURED DIMENSIONS SHOWN ON THESE PLANS, THE FIGURED DIMENSIONS SHALL GOVERN. 4. CONTRACTOR SHALL MEET ALL EXISTING IMPROVEMENTS SMOOTHLY FOR LINE, GRADE AND FINISH.
- 5. ALL WORK SHOWN ON THESE PLANS SHALL BE COMPLETED IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS AND OF THE MARYLAND STATE HIGHWAY ADMINISTRATION AND THE HOWARD COUNTY PLUMBING CODE, UNLESS OTHERWISE NOTED.
- 6. IT SHALL BE DISTINCTLY UNDERSTOOD THAT FAILURE TO MENTION SPECIFICALLY ANY WORK WHICH WOULD NORMALLY BE REQUIRED TO COMPLETE THIS PROJECT SHALL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO PERFORM SUCH WORK. THE COST OF SUCH WORK SHALL BE INCLUDED IN THE BASE BID. 7. THE CONTRACTOR SHALL INSPECT THE SITE TO DETERMINE IF ANY TREES, PAVING, ETC. ARE TO BE REMOVED PRIOR TO PLACING
- A BID ON SUCH ITEMS. 8. THE LOCATIONS OF EXISTING UTILITIES SHOWN HEREON ARE APPROXIMATE ONLY AND ARE PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. THE LOCATIONS ARE TAKEN FROM LOCATIONS. THE CONTRACTOR SHALL NOTIFY MISS UTILITY AT 1 800-257-7777 A MINIMUM OF 5 WORKING DAYS PRIOR TO DIGGING THE CONTRACTOR SHALL CONFIRM TO HIS OWN SATISFACTION THE LOCATION OF ALL UTILITIES PRIOR TO ANY EXCAVATION OR PLACEMENT OF MATERIALS. IF ANY CONFLICT IS FOUND BETWEEN UNDERGROUND UTILITIES AND THE PROPOSED LOCATION OF ANY CONSTRUCTION, THE CONTRACTOR SHALL CONTACT G. W. STEPHENS AND THE OWNER OF THE UTILITY IMMEDIATELY. ANY DAMAGE OR DISRUPTION OF SERVICE SHALL BE AT THE EXPENSE OF THE CONTRACTOR. RELOCATION OF ANY EXISTING UTILITIES, IF NECESSARY, SHALL BE AT THE EXPENSE OF THE OWNER. THE CONTRACTOR SHALL COORDINATE RELOCATION OF THESE FACILITIES, IF NECESSARY.
- CONTRACTOR SHALL PROTECT ALL EXISTING TREES OUTSIDE THE LIMIT OF DISTURBANCE AT ALL TIMES DURING CONSTRUCTION. 10. CONTRACTOR SHALL PROTECT ALL EXISTING IMPROVEMENTS NOT SCHEDULED FOR REMOVAL OR DEMOLITION. COST OF REPAIR TO EXISTING IMPROVEMENTS SHALL BE INCLUDED IN THE BASE BID. ALL EXISTING SITE FEATURES NOT BEING RETAINED SHALL BE REMOVED AND DISPOSED OF AT AN APPROVED LOCATION. ANY DAMAGE TO OFFSITE ROADS, RIGHTS OF WAY, OR ADJACENT PROPERTY SHALL BE REPAIRED IMMEDIATELY AT THE EXPENSE OF
- 11. THE CONTRACTOR SHALL CLEAR THE PROJECT SITE OF ALL TREES, PAVING, STRUCTURES, ETC. WITHIN THE CONSTRUCTION AREA UNLESS OTHERWISE NOTED ON THE PLAN.
- 12. ONLY SUITABLE MATERIAL SHALL BE USED AS FILL AND ALL FILL SHALL BE PLACED AND COMPACTED AS SPECIFIED IN THE SOILS REPORT PREPARED FOR THIS SITE OR AS RECOMMENDED BY THE EXCEPTING THOSE ASSOCIATED WITH LANDSCAPE BERMING, SHALL BE APPROVED BY A GEOTECHNICAL ENGINEER
- 13. CONTRACTOR SHALL PROVIDE MINIMUM 4 FOOT BENCH AT EDGE OF PAVING IN FILL AREAS. MAXIMUM SLOPE OF BENCH SHALL BE 4% (1/4 IN PER FOOT).
- 14. MAXIMUM SLOPE SHALL BE 2 HORIZONTALLY TO 1 VERTICALLY.
- 15. CONTRACTOR SHALL PLACE 4" MINIMUM TOPSOIL IN LANDSCAPE AREAS.
- 16. CONTRACTOR SHALL PLACE A WITNESS POST AT THE TERMINUS OF ALL UTILITY STUBS.
- 17. CONTRACTOR SHALL PROVIDE A MINIMUM OF 1 FOOT OF PROTECTIVE FILL OVER STORM DRAIN PIPES DURING CONSTRUCTION.

Legend

PREPARED BY :

Ex. 2' Contours
Ex. 10' Contours ————————————
Prop. 2' Contours ————————————————————————————————————
Prop. 10' Contours
Ex. Curb & Gutter
Prop. Curb & Gutter
Bldg. Restriction Line
Ex. Sanitary — — — — — — — — — — — — — — — — — — —
Ex. Storm Drain ————————————————————————————————————
Ex. Water — — — — — — —
Prop. Sanitary
Prop. Storm Drain
Prop. Water
Prop. Sidewalk
Silt Fence ——SF———SF—
Super Silt Fence ———————————————————————————————————
Wetland — W — W
100 YR
Floodplain — FP———
Wetland Buffer — WB —
wenging purier — WD ———

The owner shall provide a separate and independent sewer connection for each tenant or occupant of any building, shown on this site development plan who will discharge non-domestic waste to the public sewerage system if each separate and independent sewer connection shall include a standard manhole and other waste pretreatment devices as required and approved by Howard County. Waste lines on the interior of the building shall be designed, constructed or modified such that non-domestic waste will be discharged to the separate and independent sewer connection. No tenant or occupant of any building shown on this site development plan shall discharge regulated non-domestic waste to the public sewerage system prior to installation of the separate and independent sewer connection and related interior waste lines. The above statement shall apply to all initial and future occupants or tenants.

GEORGE W. STEPHENS, JR.

AND ASSOCIATES, INC.

Civil Engineers and Land Surveyors

658 Kenilworth Drive, Suite 100

Towson, Maryland 21204

(410) 825-8120

The Owner of any lot or parcel at Trol Hill Commerce Center shall submit a traffic The Owner of any lot or parcel at Trol Hill Commerce Center shall submit a traffic engineer's estimate of peak hour vehicular site trip generation with each re-subdivision plat or site development plan it files with the County for approval. the submission of any esubdivision plat or site development plan that results in a total aggregate peak hour projected trip volume from Trol Hill of at least 1746 vechicles per peak hour on a typical weekday shall require that the Owner of such plan must apply for the construction of the U.S. Toute 1 Phase III traffic improvements and must complete construction of such improvements within three years after plan approval in accordance with the Adequate Public Agreement F-91-24

18. ALL TRAFFIC CONTROL DEVICES, MARKINGS, AND SIGNAGE SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES." ALL STREET AND REGULATORY SIGNS SHALL BE INSTALLED PRIOR TO INSTALLATION

OF FINISHED PAVING. 19. THE CONTRACTOR SHALL REPLACE ANY EXISTING BITUMINOUS PAVING OR SUB-BASE WHICH IS DAMAGED OR REMOVED DURING CONSTRUCTION. ALL EXCAVATED AREAS SHALL BE BACKFILLED AND IN ACCORDANCE WITH THE SOILS REPORT AND/OR AS DIRECTED BY GEOTECHNICAL ENGINEER. ANY AREAS TO BE PAVED WHICH EXHIBIT UNSTABLE SUBGRADE CONDITIONS SHALL BE EXCAVATED TO BEARING SOIL, REFILLED AND COMPACTED. 20. IN AN AREA WHERE EXCAVATION IS NEEDED WITHIN THE ROAD

RIGHT-OF-WAY, EXCAVATION MUST BE MADE WITHIN ONE (1) FOOT OF THE FINAL SUBGRADE

21. WHERE FILL IS PROPOSED WITH IN THE ROAD RIGHT-OF-WAY, THE FILL SHALL BE A MINIMUM OF TWO (2) FEET

BELOW THE FINAL ROAD SUBGRADE. 22. STORMWATER MANAGEMENT FOR THIS SITE IS PROVIDED IN THE EXISTING POND #4 ON ADJACENT PARCEL A-5.

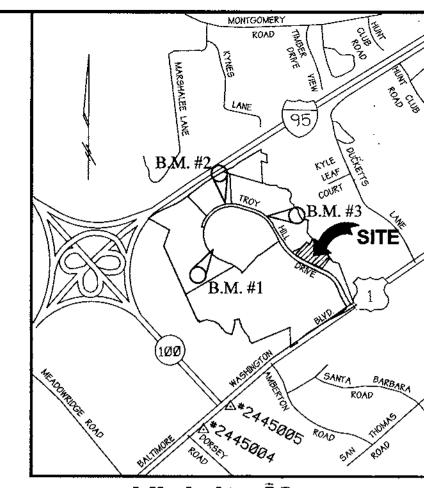
23. ALL LIGHTING TO BE MOUNTED TO BUILDING WHICH WII BE SHOWN ON ARCHITECTUAL PLANS. 24. ALL LIGHTING TO COMPLY WITH ZONING REGULATION SPECIFICATIONS

SECTION 134 OUTDOOR LIGHTING. 25. ALL STORM DRAINS TO BE RCCP OR HDPE UNLESS OTERWISE NOTED.

BENCHMARKS

BENCHMARK #1 IRON PIN @ TRAVERSE #1066 N 496.501.3597 E 869,134.4576 **ELEVATION = 175.92**[°] **BENCHMARK #2** IRON PIN @ TRAVERSE #1061 N 498,036.6945 E 868,791.1502 **ELEVATION = 242.49 BENCHMARK #3 IRON PIN @ TRAVERSE #1034** N 497,636,7437 E 869,835,6586 **ELEVATION = 214.85**

COORDINATES BASED ON NAD 27. AS PROJECTEDBY HOWARD COUNTY **GEODETIC CONTROL STATIONS** #2445004 AND #2445005



Vicinity Map

Site Data

TOTAL PROJECT AREA = 152,460 SQ.FT. OR 3.55 AC. +/-EXISTING ZONING = M-1 -PROPERTY REFERENCE = PLAT NO. 12431 / L. 4746 F. 0224 **EXISTING USE = VACANT -**PROPOSED USE = OFFICE / WAREHOUSE BUILDING COVERAGE = 12,325 SQ.FT. % OF BUILDING COVERAGE = 8.01% FLOOR AREA = 0.28 AC. +/-FLOOR AREA RATIO = 8.01% AREA TO BE PAVED PLUS BUILDING AREA = 37,435 SQ.FT. OR 0.86 AC. +/-**OPEN SPACE = 2.67 AC. +/-**TOTAL AREA OF PARKING LOT = 25,10 SQ.FT. OR 0.58 AC. +/-% OF PARKING LOT COVERAGE = 16.90% NUMBER OF PARKING SPACES REQUIRED = 31 🔼 NUMBER OF PARKING SPACES PROVIDED = 31 INCLUDING 2 HANDICAPPED -AREA TO BE DISTURBED = 58.806 SQ.FT. OR 1.35 AC. +/- -AREA TO BE VEGETATIVELY STABILIZED = 21,344,40 SQ.FT. OR 0.49 AC. +/- -SKETCH PLAN NO. = S-90-05 PRELIMINARY PLAN NO. = P-90-23

Site Developement Plan Parcel A - 3 Troy Hill Corporate Center Howard County, Maryland SDP 99-127

Parking Tabulation

TOTAL BUILDING AREA = 12,325 SQ. FT. PARKING REQUIRED: 2,725 SQ. FT. GENERAL OFFICE @ 3.3 SPACES/1000 SQ.FT = 9.0 SPACES 3,980 SQ. FT. VEHICLE SALES @ 2.0 SPACES/1000 SQ. FT. = 8.0 SPACES 2 - 2,400 SQ. FT. VEHICLE SERVICE BAYS @ 3.0 SPACES /SERVICE BAY = 6.0 SPACES @ 2.0 SPACES /1000 SQ. FT. = 10.0 SPACES 820 SQ. FT. RETAIL/SHOW ROOM @ 5.0 SPACES/1000 SQ. FT. = 4.0 SPACES

PARKING PROVIDED = 31 SPACES (INCLUDES 2 HANDICAPPED)

TOTAL REQUIRED = 31.0 SPACES

Index of Sheets

SHEET NO. 1 - COVER SHEET

SHEET NO. 2 - SITE PLAN SHEET NO. 3 - SITE PLAN DETAILS

SHEET NO. 4 - DRAINAGE AREA MAP AND PROFILES

SHEET NO. 5-STORMCEPTER PLAN & DETAILS

SHEET NO. 6-SEDIMENT EROSION CONTROL PLAN

SHEET NO. 7-SEDIMENT EROSION CONTROL DETAILS & NOTES

SHEET NO. 8 - LANDSCAPE PLAN & DETAILS

OWNER / DEVELOPER / CONTRACTOR

This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT. OVED: HOWARD SOIL CONSERVATION DISTRICT Reviewed for Howard SCD and meets Technical Requirements APPROVED: Howard County Department of Planning and Zoning 9/21/99 CHIEF, DIVISION OF LAND DEVELOPMENT 9/24/99 DATE ADDRESS CHART PARCEL NO. STREET ADDRESS SUBDIVISION NAME SECTION NAME PARCEL # TROY HILL CORPORATE CENTER ZONE MAP ELECT. DIST. CENSUS TRACT BLOCK * ZONE 12431 18 WATER CODE CO4 SEWER CODE * 4020000 COVER SHEET

TROY HILL CORPORATE CENTER

PARCEL A-3 PREVIOUS FILE #'S 590-05, P90-23, F91-24, WP96-91, F96-136

SCALE: As Shown ELECTION DISTRICT: 1st HOWARD CO., MARYLAND SHT. 1 OF 8 DATE: MARCH 08.1999

DESIGNED BY: J.P./P.R.C.

CHECKED BY: J.P./P.R.C./K

DRAWN BY: P.T./K.E.

THE MORRIS L. WEISS BUILDING LLC 13/14/00 BY GWS 10545 GUILFORD ROAD, UNIT #107 JESSUP, MD. 20794-9109 REV. PROVIDED PARKING COUNT 301-490-9525

SDP 99-127

