

POROUS ASPHALT COURSE 1/2" TO 3/4" ASSRESATE ASPHALTIC MIX FILTER COURSE 1/2" AGGREGATE " TO 2" AGGREGATE

FILTER FABRIC EXISTING SOIL POROSITY AND PERMEABILITY

POROUS ASPHALT PAVING TYPICAL SECTION

NOT TO SCALE

Construction Methods and Specifications - Porous Paving Stabilization

To preclude premature clogging and/or failure of this practice, porous asphalt paving structures shall not be placed into service until all of the surface drainage areas contributing to the pavement have been effectively stabilized in accordance with Maryland Standards and Specifications for Soil Erosion and Sediment Control.

Subgrade Preparation

- (1) Alter and refine the grades as necessary to bring subgrade to required grades and sections as shown in the drawings.
- (2) The type of equipment used in subgrade preparation construction shall not cause undue subgrade compaction. (Use tracked equipment or oversized rubber tire equipment - DO NOT use standard rubber tired equipment.) Traffic over subgrade shall be kept at a minimum. Where fill is required, it shall be compacted to a density equal to the undisturbed subgrade, and inherent soft spots corrected. Aggregate Base Course
- (1) All stone used shall be clean, washed, crushed stone, meeting local highway department specifications.
- (2) Aggregate shall be of two sizes: the reservoir base course shall be to depth as noted on drawings of aggregate (maximum of 2", minimum of 1"), and a 2-inch deep top course of 1/2" aggregate (maximum of 5/8", minimum 3/8").
- (3) Aggregate base course shall be laid over a dry subgrade covered with engineering filter fabric to a depth shown in drawings, in lifts to lay naturally compacted. The stone base course shall be compacted lightly. Keep the base course clean from debris, and sediment.

Porous Asphalt Surface Course

- (1) The surface course shall be laid directly over the 1/2" aggregate base course and shall be laid in one lift.
- (2) The laying temperature shall be between 230° and 260°, with minimum air temperature of 50°F, to make sure that the surface does not cool prior to compaction.
- (3) Compaction of surface course shall be done while the surface is cool enough to resist a 10-ton roller. One or two passes by the roller is all that is required for proper compaction. More rolling could cause a reduction in the surface course porosity.
- (4) Mixing plant shall certify the aggregate mix and abrasion loss factor and the asphalt content in the mix. The asphaltic mix shall be tested for its resistance to stripping by water using ASTM D 1664 If the estimated coating area is not above 95 percent, anti-stripping agents shall be added to the asphalt.
- (5) Transporting of mix to site shall be in clean vehicle with smooth dump beds that have been sprayed with a non-petroleum release agent. The mix shall be covered during transportation to control cooling.
- (6) Mix of asphalt shall be 5.5 to 6 percent of weight of dry aggregate.
- (7) Asphalt grade shall meet AASHTO Specification M-20 for 85 to 100 penetration road asphalt as a binder in the northern United States, 65 to 80 in the middle states (Maryland), and 50 to 65 in the
- (8) Aggregate grading shall be as specified in Table 3-3.

After final rolling, no vehicular traffic of any kind shall be permitted on the pavement until cooling and hardening has taken place, and in no case less than 6 hours (preferably day or two).

Workmanship

- (1) Work shall be done expertly throughout and without staining or damage to other permanent work.
- (2) Make transition between existing and new paving work neat and flush.
- (3) Finished paving shall be even, without pockets, and graded to elevations shown.
- (4) Iron smoothly to grade, all minor surface projections and edges adjoining other materials.

Certification

An appropriate professional, registered in the State of Maryland, shall certify that these specifications were complied with.

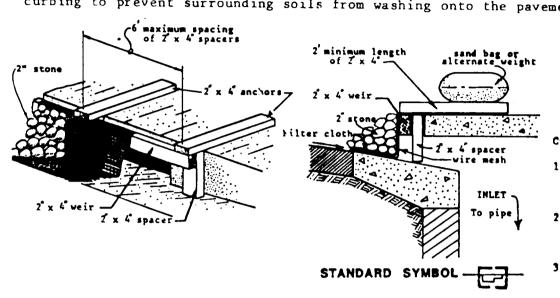
0/12/64 DEMISED PER HO.CO.COMMENTS DATED 6/27/64 / 10/4/84 DESCRIPTION DATE **REVISIONS**

Maintenance

The surface of porous asphalt pavement must be cleaned regularly to avoid its becoming clogged by fine material. This cleaning is best accomplished through use of a vacuum cleaning street sweeper. Outside of regular cleaning, porous pavement requires no more maintenance than conventional pavement. In times of heavy snowfall it must be recognized that application of abrasive material should be closely monitored to avoid clogging problems once the snow and ice has melted. No method of maintenance has been satisfactory on fully clogged pavements, and only a superficially clogged section showing a water infiltration rate of 0.1 inches per second compared to a normal water penetration of 0.38 inches per second can be restored to normal operation. The best method for cleaning is brush and vacuum sweeping followed by high pressure water washing of the pavement. Vacuum cleaning alone, once the pavement is clogged, has been found ineffective. The oils in the asphalt bind dirt, and only an abrading and washing technique can be effective in the removal of such dirt. Clogging to a depth of 0.5 inch is sufficient to prevent water penetration.

Traffic Control

Experience has shown the need for close control of contractor vehicles on newly installed areas of porous asphalt pavement. Damage to pavement porosity results chiefly from abuse during the early life of the pavement. Normally, paving is done while heavy construction or earth moving is continuing in an area. The pavement is thus subjected to mud and dirt from contractor vehicles for up to several months, and the continual passage of these vehicles compacts the dirt into the pores. Only if caked mud is cleaned from vehicle wheels and the pavement is cleaned daily by sweeping and high-pressure water washing can porosity be retained. Clogging can be further minimized by proper use of curbing to prevent surrounding soils from washing onto the pavement surface.



INLET PROTECTION

TYPICAL

PARKING

head to head farking

DITACE

3 3/4"

TEMPORARY BITUMINUS CURB

OWNER/DEVELOPER:

5755 CEDAR LANE

(301) 730-5000

COLUMBIA, MARYLAND 21044

NOT TO SCALE

HOWARD COUNTY GENERAL HOSPITAL INC.

Attach a continuous piece of wire mesh (30" min. width by throat length plus 4') to the 2" x 4" weir (measuring throat length plus 2') as shown on the standard drawing.

PROFILE

OPTION: A one foot layer of 2" stone may be placed on the upstream side of the riprap i

CONSTRUCTION SPECIFICATIONS FOR ST-V

1. Area under embankment shall be cleared, grubb'ed and stripped of say vegetation and root mat. The seal area stripped of say vegetation and root mat.

2. The fill material for the embanhment shell be free of roots and other woody vegetation as well as over-sized stones, rocks, organic majorial or other objectionable material. The embanhment shell be compacted by traversing with equipment while it is being constructed.

4. The stone used in the outlet shall be small giprap A"-8" along with a 1' thickness of 2"

5. Sediment shall be removed and trap restored to signal dimensions when the sediment

6. The structure shall be inspected after each rain and repairs made as needed.

7. Construction operations shall be carried out in such a manner than erosion and water

8. The structure shall be removed and the area stabilized when the drainage area has been

STONE OUTLET SEDIMENT TRAP

NO SCALE

aggregate placed on the up-grade side on the small riprap on ombedded filter cloth in the riprap.

- Place a piece of approved filter cloth (40-85 sieve) of the securely attach to the 2" x 4" weir..
- Securely nail the 2" x 4" weir to 9" long vertical spacers to se located between the weir and inlet face (max. 6' apart). 4. Place the assembly against the inlet throat and nail (minimum !' lengths of 2" x 4" to the top of the weir at spacer locations. These 2" x 4" anchors shall extend across the
- ifilet top and be held in place by sandbags or alternate weight 5. The assembly shall be placed so that the end spacers are minimum l' beyond both ends of the throat opening. 6. Form the wire mesh and filter cloth to the concrete gutter and
- clean 2" stone over the wire mesh and filter fabric in such a manner as to prevent water from entering the inlet under or around the filter cloth.
- filter cloth and stone replaced when clogged with sediment.
- 8. Assure that storm flow does not bypass inlet by installing

against the face of curb on both sides of the inlet. Place 7. This type of protection must be inspected frequently and the temporary earth or asphalt dikes directing flow into inlat TYPICAL 'A"WHITE IPAINTED LINES (TYPICAL) PARKING SPACE

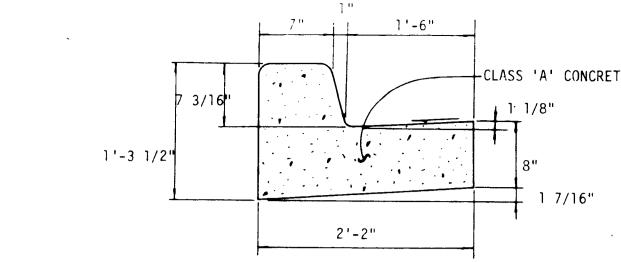
TYPICAL PADIZING DETAIL CONSTRUCTION SEQUENCE

OBTAIN GRADING PERMIT CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE AS SHOWN ON PLAN. B. EXCAVATE SEDIMENT TRAP NO. 1 TO REQUIRED DIMENSIONS AS SHOWN ON PLAN. USE EXCAVATED MATERIAL TO CONSTRUCT EARTH DIKE (A-2 SPECIFICATIONS). COMPACT DIKE AND STABILIZE WITH TEMPORARY SEEDING MIXTURE AND STRAW MULCH. INSTALL STRAW BALE DIKE/SILT FENCE.

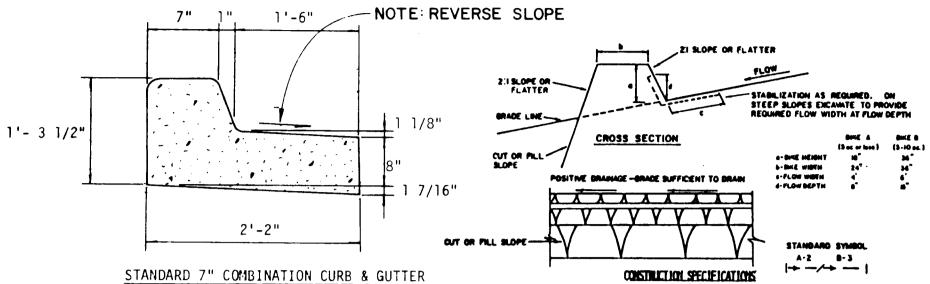
PARKING ADUTTING

<u> CURIO</u>

- 4. CLEAR AND GRUB SITE AND GRADE TO SUBGRADE.
- CONSTRUCT CURB AND GUTTER. 6. FINE GRADE PERIMETER AREA AROUND PARKING LOT AND STABILIZE WITH PERMANENT SEEDING MIXTURE AND STABILIZE WITH STRAW MULCH. REMOVE STRAW BALE DIKE/SILT FENCE ONLY AFTER SLOPES HAVE BEEN STABILIZED AND PERMISSION HAS BEEN GIVEN BY THE SEDIMENT CONTROL INSPECTOR
- CONSTRUCT POROUS PAVEMENT (SEE CONSTRUCTION SPECS.) 8. SEDIMENT SHALL BE REMOVED FROM THE SEDIMENT TRAP WHEN THE CLEANOUT ELEVATION HAS BEEN REACHED.
- 9. THE CONTRACTOR SHALL INSPECT AND PROVIDE NECESSARY MAINTENANCE ON THE SEDIMENT AND EROSION CONTROL STRUCTURES SHOWN HEREON. AFTER EACH RAINFALL AND ON A DAILY BASIS.
- 10. THE SEDIMENT TRAP SHALL BE DEWATERED BY PUMPING. THE SEDIMENT FROM THE TRAP SHALL BE PLACED UP-GRADE FROM THE SEDIMENT TRAP IN SUCH A MANNER AS NOT TO INTERFERE WITH CONSTRUCTION OPERATIONS OR CAUSE EROSION DOWNGRADE FROM THE SEDIMENT TRAP.
- 11. REMOVE SEDIMENT FROM ROADWAYS AND DRESS STONE CONSTRUCTION ENTRANCE AS
- 12. STABILIZE ALL REMAINING DISTURBED AREAS WITH PERMANENT SEEDING MIXTURE AND
- 13. AFTER PERMISSION HAS BEEN GIVEN BY SEDIMENT CONTROL INSPECTOR, BACKFILL SEDIMENT TRAP AND STABILIZE REMAINING DISTURBED AREA WITH PERMANENT SEEDING MIXTURE AND STRAW MULCH.



STANDARD 7" COMBINATION CURB & GUTTER NO SCALE



ALL BINES SHALL BE COMPACTED BY EARTH-MOVING EQUIPMENT. ALL BINES SHALL MAVE POSITIVE DRAININGE TO AN OUTLET, TOP WIDTH MAY BE WIDER AND SIDE SLOPES MAY BE FLATTER IF DESIRED TO FACILITATE

CAOSSING BY CONSTRUCTION TRAFFIC.

FIELD LOCATION SHOULD BE ADAUSTED AS NEEDED TO UTILIZE A STABILIZED SAFE CUTLET,

EARTH DINES SHALL HAVE AN OUTLET THAT FUNCTIONS WITH A MINIMUM OF ENGLISH. PANOFF

SHALL BE CONNEYED TO A SEDIMENT TRAPPING DEVICE SUCH AS A SEDIMENT TRAP OR SEDIMENT

BASIN WHERE EITHER THE DINE CHANNEL OR THE DRAINAGE AREA ABOVE THE DIKE ARE NOT

ADEQUATELY STABILIZED.

STABILIZATION SHALL BE: (A) IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR SEED AND STRAW MULCH OF STRAW MULCH IF NOT IN SEEDING SEASON, (B) FLOW CHANNEL AS PER THE CHART BELOW.

___DIKE A

SEED ME STRAN FLLCH

SEED MO STRAN PLLON

SEER WITH JUTE, OR SOD;

B. RIP-RAP TO BE 4-8 INCHES IN A LAYER AT LEAST \$ INCHES THICKNESS AND PRESSED INTO

THE SUIL.

PPROVED BOUTWILDITS CAN BE SUBSTITUTED FOR ANY OF THE ABOVE MATERIALS.

EARTH DIKE

NO SCALE

SEDIMENT CONTROL NOTES

SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT

U.S.D.A. SOIL CONSERVATION SERVICE "STANDARDS AND

THE DEVELOPER SHALL NOTIFY THE HOWARD COUNTY OFFICE

OF INSPECTION AND SURVEYS AT LEAST 24 HOURS PRIOR

SEDIMENT CONTROL STRUCTURES TO BE CONSTRUCTED PRIOR

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE

TO BEGINNING ANY CONSTRUCTION SHOWN HEREON

TO ANY ON-SITE GRADING OR DISTURBANCE TO ANY

4. ALL SEDIMENT CONTROL STRUCTURES TO REMAIN IN PLACE

FROM THE HOWARD COUNTY OFFICE OF INSPECTION AND

BY SEEDING AND MULCHING IN ACCORDANCE WITH THE

UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED

5. ALL GRADED AREAS NOT TO BE SODDED SHALL BE STABILIZED

PULVERIZED LIMESTONE AT 2 TONS/ACRE.

3) SUPER PHOSPHATE AT 600 LBS./ACRE.

A. HARROW OR DISC IN AREAS PROPOSED TO BE SEEDED

2) COMMERCIAL FERTILIZED 10-10-10 AT 3/4 TONS/

A. SOW THE FOLLOWING SEED MIXTURE AT THE RATE OF

1) TEMPORARY: ITALIAN OR PERENNIAL RYE GRASS.

YORK RAKE (A MINIMUM OF 2 PASSES) COVERED AND

COMPACTED WITH CULTIPACKER OR OTHER APPROVED

IMMEDIATELY AFTER SEEDING WITH UNWEATHERED

SMALL GRAIN STRAW AT THE RATE OF 1 1/2 -

B. TIE MULCH DOWN WITH LIQUID ASPHALT AT 0.1

6. FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE

1. SEVEN CALENDAR DAYS FOR ALL PERIMETER SEDIMENT

CONTROL STRUCTURES, DIKES, SWALES, DITCHES,

PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1

FOR PUBLIC WATER AND SEWER AND STORM DRAINAGE

PERMANENT OR TEMPORARY STABILIZATION SHALL BE

GAL./S.Y. OR MULCH NETTING.

AREAS ON THE PROJECT SITE.

SYSTEMS AND ROADS.

GAL./S.Y. OR EMULSIFIED ASPHALT AT 0.04

200 LBS./ACRE WITH A MECHANICAL SPREADER.

2) PERMANENT: 40% MARION BLUE GRASS, 40%

DAKOTA BLUE GRASS AND 20% PENN LAWN

B. THE SEEDED AREA SHALL THEN BE RAKED WITH A

A. SEEDED AREAS SHALL BE UNIFORMLY MULCHED

EXISTING SURFACE MATERIAL. AND ARE TO BE

STABILIZED AS SOON AS CONSTRUCTED.

THE FOLLOWING MATERIALS

CREEPING FESCUE.

CONTROL IN DEVELOPING AREAS."

(500-5437).

FOLLOWING:

2. SEEDING:

METHOD.

COMPLETED WITHIN:

2 TONS/ACRE.

3. MULCHING:

SURVEYS (505-5437).

1. SITE PREPARATION:

.5-3.0K

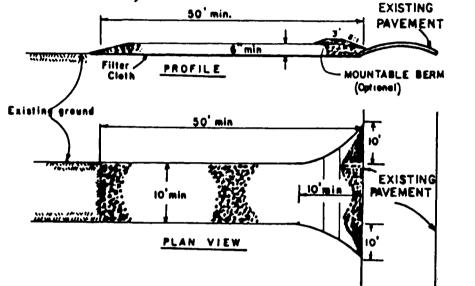
FLOW CHANNEL STABILIZATION

DIKE B

SEED AND STRAW MULCH

LINED RIP-RAP 4-8"



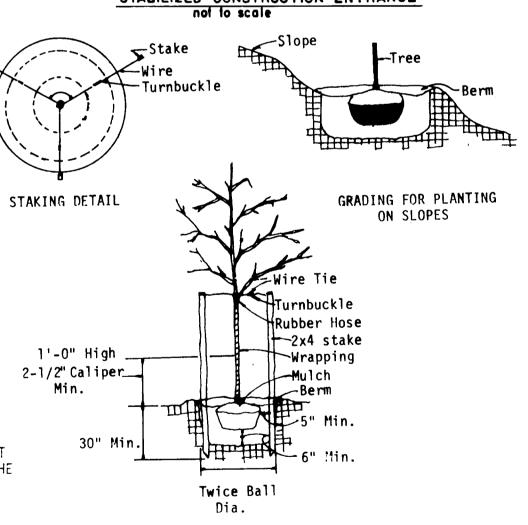


NO SCALE

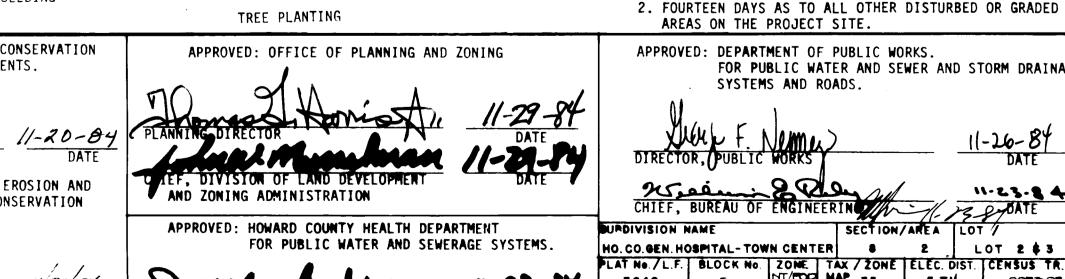
CONSTRUCTION SPECIFICATIONS

- 1. Stone Size Use 2" stone, or reclaimed or recycled concrete equivalent. 2. Length - As required, but not less than 50 feet (except on a single residence lot where a 30 foot minimum length would apply).
- 4. Width Ten (10) foot minimum, but not less than the full width a points where ingress or egress occurs. 5. Filter Cloth - Will be placed over the entire area prior to placing of stone. Filter will not be required on a single family residence lot.
- 6. Surface Water All surface water flowing or diverted toward construction entrances shall be piped across the entrance. If piping is impractical, a mountable berm with 5:1 slopes will be permitted. prevent tracking or flowing of sediment onto public rights-of-way. This may
- require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment. All sediment spilled, dropped, washed or tracked onto public rights-of-way must
- public rights-of-way. When washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping 9. Periodic inspection and needed maintenance shall be provided after each rain.

STABILIZED CONSTRUCTION ENTRANCE

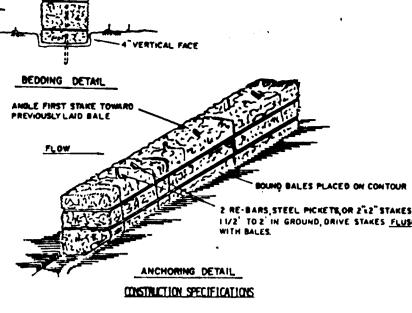


Note: Remove Burlap from Top 1/3 of Ball



3648

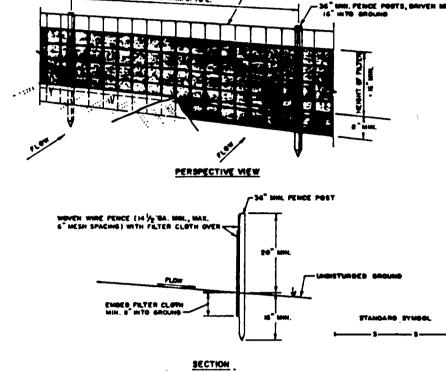
11-23.84 HO, CO, GEN, HOSPITAL-TOWN CENTER 8 2 PLAT No. / L.F. | BLOCK No. | ZONE | TAX / ZONE | ELEC. DIST. | CENSUS TR. COMMI MAP 38 S TH 5 WATER CODE SEWER CODE N.A.



. BALES SHALL BE PLACED AT THE TOE OF A SLOPE OR ON THE CONTOUR AND IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES. 2. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF (4) INCHES, AND PLACED SO THE BINDINGS ARE HORIZONTAL.

5. BALES SHALL BE SECURELY ANCHORED IN PLACE BY EITHER THO STANES OR RE-BARS DRIVEN THROUGH THE BALE. THE FIRST STANE IN EACH BALE SHALL BE DRIVEN YOMAND THE PREVIOURLY LAID BALE AT AN ANGLE TO FORCE THE BALES TOGETHER. STAKES SHALL BE INSPECTION SHALL BE FREQUENT AND REPAIR REPLACEMENT SHALL BE MADE PROMPTLY AS

BALES SHALL BE REPOVED WICH THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK STRAW BALE DIKE



CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

2. FILTER CLOTH TO BE FASTENED SECURELY TO MOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. 3. - Ween two sections of FILTER CLOTH

FENCE: MOVEN WIRE, 14: GA. 6" MAX. MESH OPENIN FILTER CLOTH: FILTER X,
HIRAFI 100X, STABI-ABJOHN EACH OTHER THEY SHALL BE OVER-

POSTS: STEEL EITHER T OR U

PREFABRICATED UNIT: GEOFAB, UNINOFENCE, OR APPROVED

SILT FENCE NO SCALE

> APPRO PI INF the way in the say .

MD. REG. NO. 13204

NOTES & DETAILS

HOWARD COUNTY GENERAL

HOSPITAL

TOWN CENTER-COLUMBIA PARKING LOT SECTION 8 AREA 2 LOT 2 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SCALE: AS SHOWN JULY 30,1984 SHEET 2 OF 2

SDP-85-17

MENTS OF THE HOMARD SOIL CONSERVATION DISTRICT.

ENGINEER'S CERTIFICATE

I HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND SED-

IMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN

AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIRE-

BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS

PAVEMENT WIDTH INDICATED ON

TYPICAL STREET SECTIONS TO BE MEASURED TO THIS POINT

> "I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PRO-

GRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DIS-TRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY."

THIS DEVELOPMENT IS APPROVED FOR EROSION AND APPROVED:

U.S./SOIL CONSERVATION SERVICE

SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION

DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

DATE

DEVELOPER'S CERTIFICATE

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION

HOWARD SOIL CONSERVATION DISTRICT

SIGNATURE OF DEVELOPER

FISHER, COLLINS & CARTER, INC.

CIVIL ENGINEERS & LAND SURVEYORS

8388 COURT AVE.

ELLICOTT CITY, MD. 21043

(301) 461 - 2855