

EX SEDIMENT TRAP DATA

EX DRAINAGE AREA = 0.3 AC.
 STORAGE REQUIRED = 14240 CF
 STORAGE PROVIDED = 20,250 CF
 TOP OF DAM = 341.5
 BOTTOM ELEVATION = 330.0
 WEIR CREST ELEV. = 340.0
 WEIR LENGTH = 10'
 OUTLET LENGTH = 18'
 CLEANOUT ELEV. = 337.5
 LIMIT OF STORAGE = 335.0
 (REF. SDP-05-40)

VICINITY MAP
 SCALE: 1"=200'

GENERAL NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
- ANY DAMAGE TO COUNTY OWNED RIGHTS-OF-WAY TO BE CORRECTED AT DEVELOPER'S/BUILDER'S EXPENSE.
- TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO PLACEMENT OF ANY ASPHALT.
- EXISTING CONTROLS SHOWN WERE GENERATED FROM F-96-68, SDP-95-40 AND F-95-25.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- ALL PARKING SPACES AND ISLANDS WITHIN PUBLIC R/W TO BE PRIVATELY MAINTAINED.
- COORDINATES BASED ON NAD '83 MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO. 36A AND NO. 37D.
- INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM F-95-25, F-96-68 AND CONTRACT NO. 20-3352-D, 24-3355-D AND 24-3484-D. BUT THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION BY AUGUST TEST PITS BY HAND AT ALL UTILITY CROSSINGS WELL IN ADVANCE OF CONSTRUCTION. ANY DISCREPANCIES MUST BE COMMUNICATED TO THE ENGINEER FOR POSSIBLE RE-USE.
- THE CONTRACTOR/DEVELOPER SHALL CONTACT THE CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- THE DEVELOPER AGREES TO WORK WITH THE DEPARTMENT OF LICENSES AND INSPECTIONS TO RESOLVE ANY PROBLEMS CAUSED BY ROOF WATER DRAINAGE.
- FOR PUBLIC WATER AND SEWER PLANS, SEE F-95-25, CONTRACT NO. 20-3352-D, 24-3355-D AND 24-3484-D.
- STORMWATER MANAGEMENT AND WATER QUALITY FOR THIS SITE ARE TO BE PROVIDED BY A PUBLIC FACILITY UNDER F-95-25 AND F-96-68.
- SEE DEPARTMENT OF PLANNING & ZONING FILE NUMBERS:
 F-96-68, SDP-95-40, F-95-25, WP-95-113, S-95-226, S-93-116, F-90-53, P-94-116 AND FDP-216.
- WHERE PROPOSED CURB IS ALONG A DESIGNATED FIRE LANE, COMMON "RED TRAFFIC PAINT" SHALL BE USED TO PAINT THE ENTIRE TOP AND VERTICAL SURFACE OF THE CURB. THE PAINTED SURFACE SHALL EXTEND FOR THE FULL LENGTH OF THE DESIGNATED FIRE LANE. THIS TYPE OF PAINT IS READILY OBTAINABLE FROM THE BALTIMORE PAINT AND CHEMICAL COMPANY OR ANY SIMILAR SOURCE DISPENSING SPECIAL-USE PAINTS. PAINT MAY BE APPLIED BY EITHER BRUSH OR SPRAY.
- WETLAND DELINEATION WAS PERFORMED BY KIDDE CONSULTANTS AND VERIFIED BY DNR IN 1994.
- ALL PLAN DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE (5) DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
 MISS UTILITY 1-800-257-7777
 C & P TELEPHONE COMPANY 725-997
 HOWARD COUNTY BUREAU OF UTILITIES 331-490
 A & T CABLE LOCATION DIVISION 393-3553
 BALTIMORE GAS & ELECTRIC COMPANY 685-0123
 STATE HIGHWAY ADMINISTRATION 475-5533
- ALL CURB FILLETS ARE 5' RADIUS UNLESS NOTED OTHERWISE. SEE ALSO F-96-68.
- ALL DRIVEWAY APRONS SHALL BE PER HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS STANDARD DETAIL NO. P-6-03.
- RESIDENTS WITH PRIVATE DRIVEWAYS MAY PLACE THEIR TRASH AND RECYCLES AT CURBSIDE FOR COLLECTION. RESIDENTS WITH COMMON PARKING AREA MUST GROUP TRASH AT COMMON GROUPING AREA SUCH AS THE CURBEND OR GRASS ISLAND FOR COLLECTION.
- PROJECT BACKGROUND/SITE ANALYSIS:
 LOCATION: WEST OF APRIL BROOK CIRCLE AT GRAY SEA WAY
 TAX MAP: 37
 PARCEL: 555
 ZONING: NT-SFA
 SECTION/AREA: 4/2
 TOTAL TRACT AREA: 4.87 AC. (LOTS C-1 THRU C-68)
 NUMBER OF LOTS: 67 BUILDABLE AND 1 OPEN SPACE
 PARKING REQUIRED: 134 (67 X 2) PARKING PROVIDED: 36 (ARAGES SPACES; 98 DRIVEWAY SPACES; 82 9' X 8' COMMON SURFACE SPACES; 12 SPACES TOTAL (2.3 SP/UNIT))

ADDRESS CHART

LOT NO.	STREET ADDRESS	LOT NO.	STREET ADDRESS
C-1	6300 GRAY SEA WAY	C-35	6376 GRAY SEA WAY
C-2	6302 GRAY SEA WAY	C-36	6378 GRAY SEA WAY
C-3	6304 GRAY SEA WAY	C-37	6380 GRAY SEA WAY
C-4	6306 GRAY SEA WAY	C-38	6379 GRAY SEA WAY
C-5	6308 GRAY SEA WAY	C-39	6377 GRAY SEA WAY
C-6	6310 GRAY SEA WAY	C-40	6375 GRAY SEA WAY
C-7	6312 GRAY SEA WAY	C-41	6373 GRAY SEA WAY
C-8	6314 GRAY SEA WAY	C-42	6371 GRAY SEA WAY
C-9	6316 GRAY SEA WAY	C-43	6369 GRAY SEA WAY
C-10	6318 GRAY SEA WAY	C-44	6367 GRAY SEA WAY
C-11	6320 GRAY SEA WAY	C-45	6365 GRAY SEA WAY
C-12	6322 GRAY SEA WAY	C-46	6363 GRAY SEA WAY
C-13	6324 GRAY SEA WAY	C-47	6361 GRAY SEA WAY
C-14	6326 GRAY SEA WAY	C-48	6359 GRAY SEA WAY
C-15	6328 GRAY SEA WAY	C-49	6357 GRAY SEA WAY
C-16	6330 GRAY SEA WAY	C-50	6355 GRAY SEA WAY
C-17	6332 GRAY SEA WAY	C-51	6353 GRAY SEA WAY
C-18	6334 GRAY SEA WAY	C-52	6351 GRAY SEA WAY
C-19	6336 GRAY SEA WAY	C-53	6349 GRAY SEA WAY
C-20	6338 GRAY SEA WAY	C-54	6347 GRAY SEA WAY
C-21	6340 GRAY SEA WAY	C-55	6345 GRAY SEA WAY
C-22	6342 GRAY SEA WAY	C-56	6343 GRAY SEA WAY
C-23	6344 GRAY SEA WAY	C-57	6341 GRAY SEA WAY
C-24	6346 GRAY SEA WAY	C-58	6339 GRAY SEA WAY
C-25	6348 GRAY SEA WAY	C-59	6337 GRAY SEA WAY
C-26	6350 GRAY SEA WAY	C-60	6335 GRAY SEA WAY
C-27	6352 GRAY SEA WAY	C-61	6333 GRAY SEA WAY
C-28	6354 GRAY SEA WAY	C-62	6331 GRAY SEA WAY
C-29	6356 GRAY SEA WAY	C-63	6329 GRAY SEA WAY
C-30	6358 GRAY SEA WAY	C-64	6327 GRAY SEA WAY
C-31	6360 GRAY SEA WAY	C-65	6325 GRAY SEA WAY
C-32	6370 GRAY SEA WAY	C-66	6323 GRAY SEA WAY
C-33	6372 GRAY SEA WAY	C-67	6321 GRAY SEA WAY
C-34	6374 GRAY SEA WAY		

SHEET INDEX

SHEET NO.	TITLE
1 & 2	SITE DEVELOPMENT PLAN
3 & 4	LANDSCAPE PLAN
5	NOTES AND DETAILS

APPROVED
 BOARD OF
 COUNTY

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements.
 This Development Plan is approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.
 J. A. Washburn 4/24/96
 Natural Resources Conservation District
 APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 5/24/96
 5/24/96
 5/24/96

ENGINEER'S CERTIFICATE
 I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.
 12/11/95

DEVELOPER'S/BUILDER'S CERTIFICATE
 I/We certify that all development and/or construction will be done according to this plan, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Maryland Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the HSCD.
 12/12/95

GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
 3905 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK - BURTONSVILLE, MARYLAND 20866

TEL: (301) 421-4024 NO. VA: (301) 989-2524 BALT. (410) 880-1820 FAX: (301) 421-4186 DES. ACJ DRN. ACJ CHK. ABT

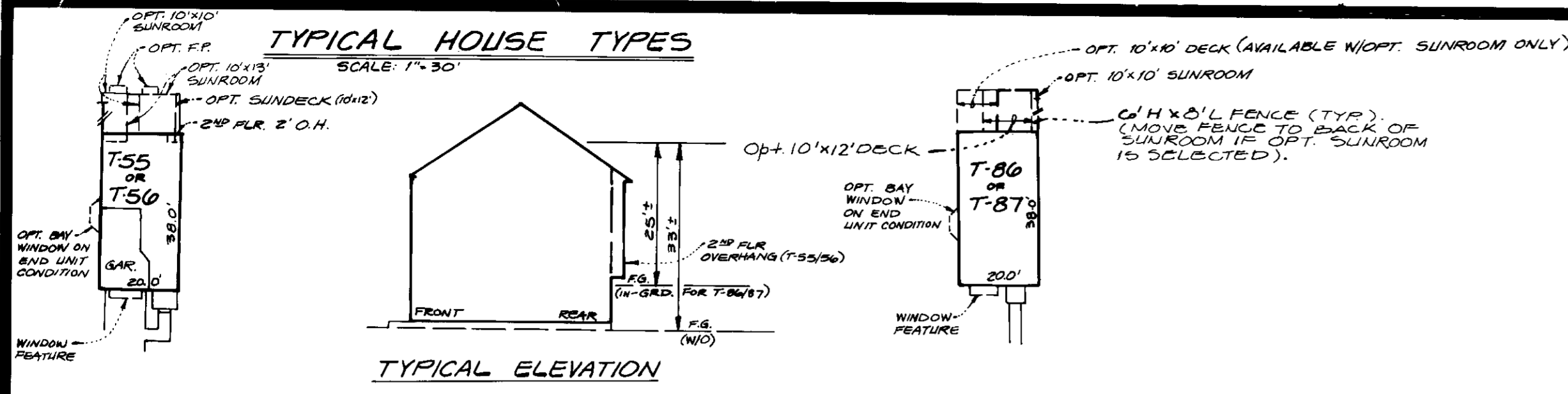
OWNER
 THE HOWARD RESEARCH & DEVELOPMENT CORP.
 10275 LITTLE PATRIOT PKWY
 COLUMBIA, MD 21044-3456
 (410) 222-6027

CONTRACT PURCHASER
 TRAILBLAZER HOUSE
 RESIDENTIAL MARYLAND
 8065 GUILFORD RD SUITE 200
 COLUMBIA, MD 21046
 (410) 720-5071
 ATTN: MICHAEL CLAY

SITE DEVELOPMENT PLAN
VILLAGE OF LONGREACH
 SECTION 4 AREA 2
 LOTS C-1 THRU C-68
 6TH ELECTION DISTRICT

SCALE	ZONING	G. L. W. FILE NO.
1"=30'	NEW TOWN	25-032
DATE	TAX MAP No.	SHEET
DECEMBER 1995	37	1 OF 5

SDP-96-74



- LEGEND**
- EX. CONTOUR
 - PROP. CONTOUR
 - LIMIT OF DISTURBANCE
 - EARTH DIKE
 - TEMPORARY SWALE
 - STONE CONSTRUCTION ENTRANCE
 - 100 YR FLOODPLAIN
 - LIMIT OF WETLANDS
 - WETLANDS BUFFER
 - STREAM BUFFER
 - INLET PROTECTION OR INLET BARRIER
 - STORM DRAIN LINE & INLET
 - SEWER MAIN
 - SEWER HOUSE CONNECTION
 - WATER MAIN
 - WATER HOUSE CONNECTION



This Development Plan is approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.

J. H. W. [Signature] 4/23/96
Natural Resource Conservation District

DEVELOPER'S/BUILDER'S CERTIFICATE

"I certify that all development and/or construction will be done according to this plan, and that any responsible personnel involved in the construction project will have a Certificate of Attendance of a Maryland Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the HSD."

Michael F. Clay 12/12/95
Secretary of Developer/Builder

ENGINEER'S CERTIFICATE

"I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."

[Signature] 12-11-95
Date

APPROVED PLANNING BOARD OF HOWARD COUNTY

DATE: 3-7-96

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

[Signature] 5/24/96
[Signature] 5/23/96
[Signature] 5/16/96

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK - BURTONSVILLE, MARYLAND 20886
TEL: (301) 421-4024 NO. VA.: (301) 989-2524 BALI: (410) 880-1820 FAX: (301) 421-4186 DES. AKJ DRN. AKJ CHK. MJB

DATE	REVISION	BY	APP'R.
5/16/96	ADDED OPT. SUNROOM TO T-55/56 UNITS & TO TYPICAL HOUSE TYPE	AKJ	APP'R.

SITE DEVELOPMENT PLAN

VILLAGE OF LONGREACH
SECTION 4 AREA 2
LOTS C-1 THRU C-68

6TH ELECTION DISTRICT

HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE NO.
1"=30'	NEW TOWN	95-032
DATE	TAX MAP No.	SHEET
DECEMBER 1995	37	2 OF 5

SOP-96-74

EX SEDIMENT TRAP DATA

EX DRAINAGE AREA: 8.3 AC
 STORAGE REQUIRED: 14,540 CF
 STORAGE PROVIDED: 20,250 CF
 TOP OF DAM: 341.5
 BOTTOM ELEVATION: 336.0
 WEIR CREST ELEV.: 340.0
 WEIR LENGTH: 16'
 OUTLET LENGTH: 16'
 CLEANOUT ELEV.: 337.5
 LIMIT OF STORAGE: 333.0
 (REF. SDF-05-40)

FOR PLANTING IN WATER QUALITY POND-SEE
 SEDIMENT CONTROL PLANS



APPROVED
 PLANNING BOARD
 of HOWARD COUNTY
 DATE 3/14/96

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 [Signature] 5/24/96
 [Signature] 5/23/96
 [Signature] 5/3/96

THIS PLAN IS FOR LANDSCAPING PURPOSES ONLY!

GLW GUTSCHICK LITTLE & WEBER, P.A. CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK - BURTONSVILLE, MARYLAND 20866 TEL: (301) 421-4024 NO. VA.: (301) 989-2524 BALT: (410) 880-1820 FAX: (301) 421-4186 DES. REV. DRN. ASK. CHK. TEST	DATE	REVISION	BY	APPR.	OWNER THE HOWARD RESEARCH & DEVELOPMENT CORP 10275 LITTLE PATRIOT PKWY COLUMBIA, MD 21044-3436 (410) 252-6027	CONTRACT PURCHASER TRAFALGAR HOUSE RESIDENTIAL MARYLAND 8905 SULLYFORD RD SUITE 200 COLUMBIA, MD 21046 (410) 720-5071 ATTN: MICHAEL CLAY	LANDSCAPE PLAN VILLAGE OF LONGREACH SECTION 4 AREA 2 LOTS C-1 THRU C-68 6 TH ELECTION DISTRICT	SCALE 1" = 30'	ZONING NEW TOWN	G. L. W. FILE No. 95-032
								DATE DECEMBER 1995	TAX MAP No. 37	SHEET 30F5

SDF-9674

EXISTING UTILITY NOTES

- For marking locations of existing utilities, notify "MISS UTILITY" at 1-800-257-7777, 48 hours prior to any excavation or construction.
- Information concerning underground utilities was obtained from available records. The contractor must determine the exact locations and elevations of the utilities by digging test pits by hand at all utility crossings well in advance of trenching. If clearances are less than specified on this plan or less than 12 inches when not specified, contact the Engineer, WPB and the owner of the other involved utility before proceeding with construction.
- For field location of gas line services, notify BGC & E Co. Cont. Serv., 410-890-4020, 48 hours prior to the start of any excavation or construction.
- Omissions and/or additions of utilities found during construction shall be the sole responsibility of any contractor engaged in excavation at this site. Gutschick, Little & Weber, P.A., shall be notified immediately of any and all utility information, omissions and additions found by any contractor.
- Due to the proximity of live underground and overhead utilities, we are not responsible for any damage or injury sustained during construction by any persons, trucks, trailers, or equipment used on or adjacent to the site.

48 Hours
Before You Dig
Call
"MISS UTILITY"
Service Protection Center
MEMBER
ONE CALL SYSTEMS INTERNATIONAL
CALL TOLL FREE
1-800-257-7777

PLANTING NOTES

- All plants provided by Contractor to be nursery grown and furnished in accordance with AAN "American Standards for Nursery Stock" ANSI Z60.1.
- All trees to branch symmetrically around central leader. No forked leader stock will be accepted.
- Plant material types may vary due to market availability at time of construction. Any substitutions and must be approved in writing by the owner or landscape architect.
- The Contractor shall notify all utility companies five (5) days prior to beginning work.
- Any damage to the existing utilities, buildings, paving, curb and walls, and vegetation (not so designated for removal on these plans) shall be repaired to previous condition or replaced by the Contractor at his expense.
- All areas disturbed during construction are to be seeded unless noted otherwise.
- All oaks and pines shall be planted during the spring planting season only.
- All planting procedures and specifications shall conform to "Landscape Specification Guidelines for Baltimore-Washington Metropolitan Area" latest edition.

NOTE: THIS LANDSCAPE PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE ALTERNATIVE COMPLIANCE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. LANDSCAPE "SCHEDULE A,B,C,D" IS SHOWN FOR SURETY PURPOSES ONLY. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE GRADING BOND FOR F-96-08 IN THE AMOUNT OF \$12,700.00.

LANDSCAPE SCHEDULE	TREES REQUIRED	
	SHADE	EVERGREEN
A	12	24
B	8	0
C	67	0
D	7	9
TOTAL TREES: 127		

LANDSCAPE TABULATION

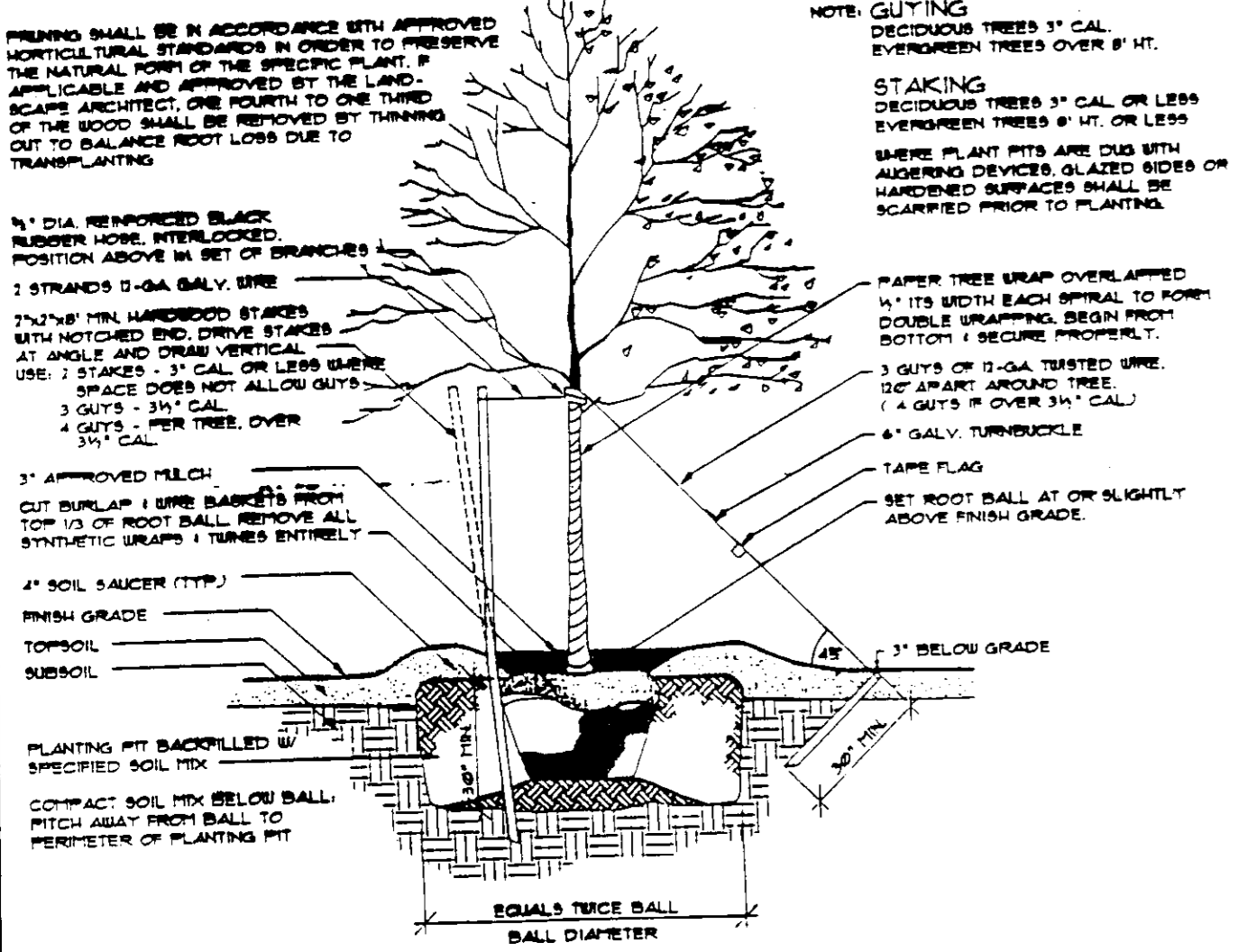
PLANTING REQUIRED (BY HRD)
UNWOODED - TOWNHOUSE UNITS
3 SHADE TREES PER UNIT
67 UNITS x 3 = 201 SHADE TREES
STREET TREES - 43 SHADE TREES

PLANTING PROVIDED
SHADE TREES 80
EVERGREEN & ORN. 243 (121 EQV.)
(SUB. BY 4 ORN. @ 2:1)
STREET TREES 43
TOTAL SHADE TREES PROVIDED 244

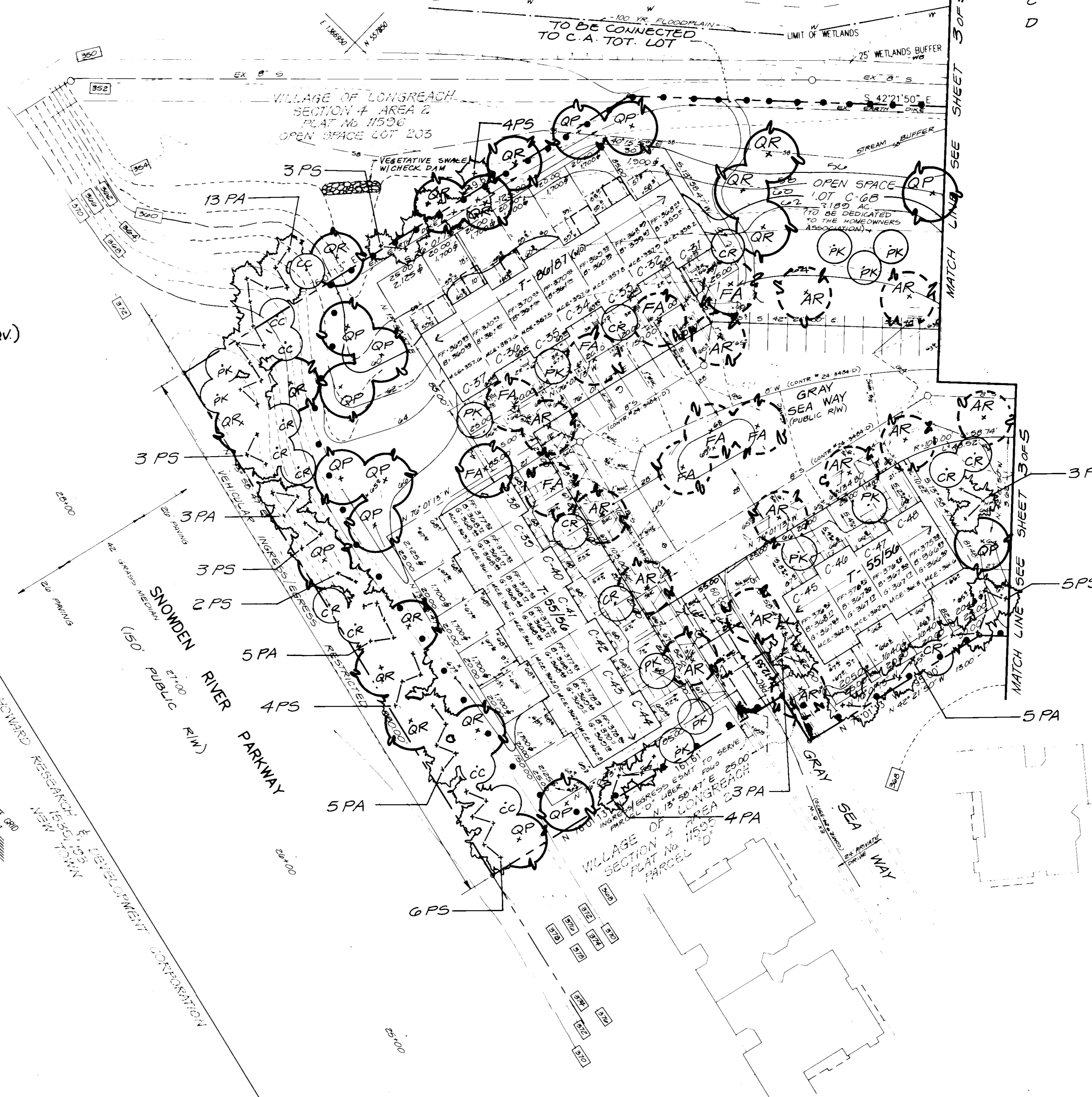
TREE LEGEND

- AR - STREET TREES - SHADE
- QP - SHADE TREES
- CR - ORNAMENTAL TREES
- PA - EVERGREEN TREES
- WATER QUALITY PLANTINGS (SEE SEDIMENT CONTROL PLANS F-96-08)

TREE PLANTING DETAIL
N.T.S.



SYMBOL	NAME (BOTANICAL/COMMON)	SIZE	QUAN.	COMMENTS
AR	Shade Trees Acer rubrum "October Glory"/ October Glory Red Maple	2 1/2 - 3" Cal. 12 - 14' Ht.	42	B&B
FA	Fraxinus americana "Purple Ash" Autumn Purple Ash	2 1/2 - 3" Cal. 12 - 14' Ht.	27	B&B
QP	Quercus phellos/Willow oak	2 1/2 - 3" Cal. 12 - 14' Ht.	27	B&B
QR	Quercus rubra/Northern Red Oak	2 1/2 - 3" Cal. 12 - 14' Ht.	25	B&B
CC	Ornamental Trees Cercis canadensis/Eastern Redbud	2 1/2 - 3" Cal. 8 - 10' Ht.	18	B&B
CR	Cornus x "Rutdan"/ "Celestial" Hybrid Dogwood	2 1/2 - 3" Cal. 8 - 10' Ht.	37	B&B
PK	Prunus kwanzan/kwanzan Cherry	2 1/2 - 3" Cal. 12 - 14' Ht.	28	B&B
PA	Evergreen Trees Picea abies/Norway Spruce	2 1/2 - 3" Cal. 8 - 10' Ht.	95	B&B Central Leader
PS	Pinus strobus/Eastern White Pine	2 1/2 - 3" Cal. 8 - 10' Ht.	69	B&B Central Leader



APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE 3/14/96

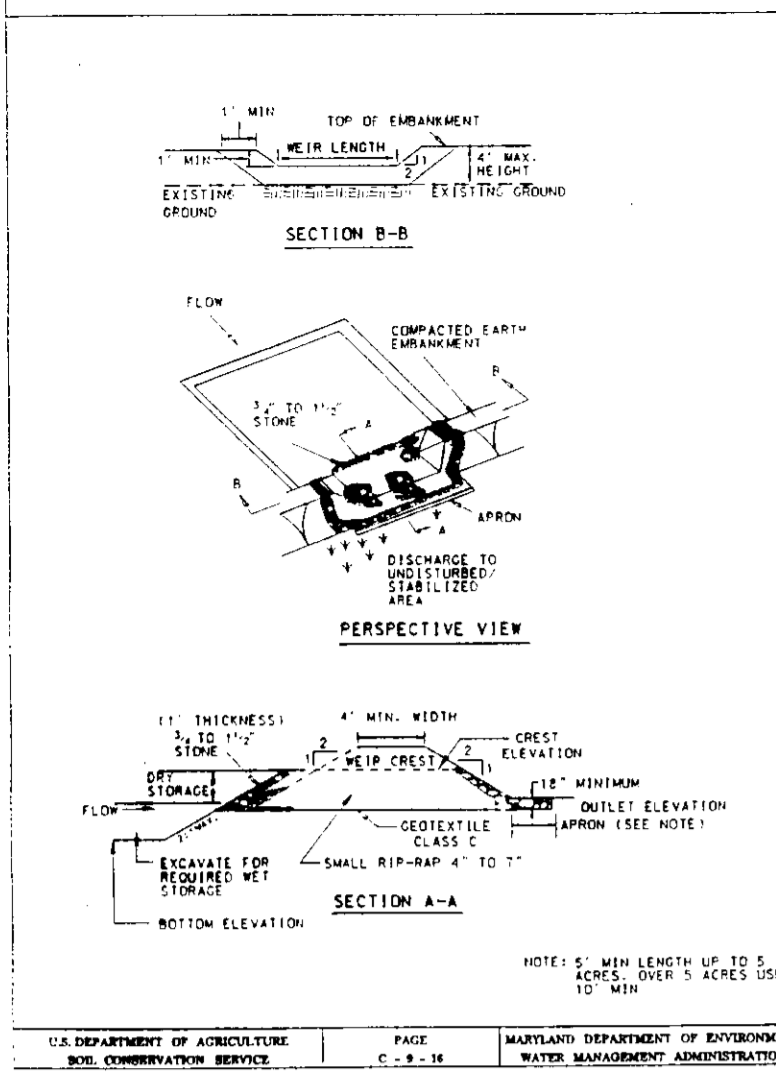
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 [Signature] 5/24/96
 [Signature] 5/23/96
 TC 5/26/96

THIS PLAN IS FOR LANDSCAPING PURPOSES ONLY!

G&W GUTSCHICK LITTLE & WEBER, P.A. CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK - BURTONSVILLE, MARYLAND 20866 TEL: (301) 421-4024 MD. VA.: (301) 989-2524 BALT.: (410) 880-1820 FAX: (301) 421-4186 DES./JK/ DRN./JK/ CHK./MST/ DATE/ REVISION/ BY/ APPR.	PREPARED FOR: THE HOWARD RESEARCH & DEVELOPMENT CORP 10275 LITTLE PATUXENT FRY COLUMBIA, MD 21044-3450 (410) 252-6027	CONTRACT PURCHASER: TRIPALGAR HOUSE RESIDENTIAL HARBORLAND 8905 GUILDFORD RD SUITE 200 COLUMBIA, MD 21040 (410) 782-5071 ATTN: MICHAEL CLAY	LANDSCAPE PLAN VILLAGE OF LONGREACH SECTION 4 AREA 2 LOTS C-1 THRU C-68 HOWARD COUNTY, MARYLAND 6 TH ELECTION DISTRICT	SCALE 1" = 30' ZONING NEW TOWN G. L. W. FILE NO. 95-032 DATE DECEMBER 1995 TAX MAP No. 37 SHEET 4 OF 5
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SPP-96-74

DETAIL 10A - STONE / RIP-RAP OUTLET SEDIMENT TRAP - ST IV



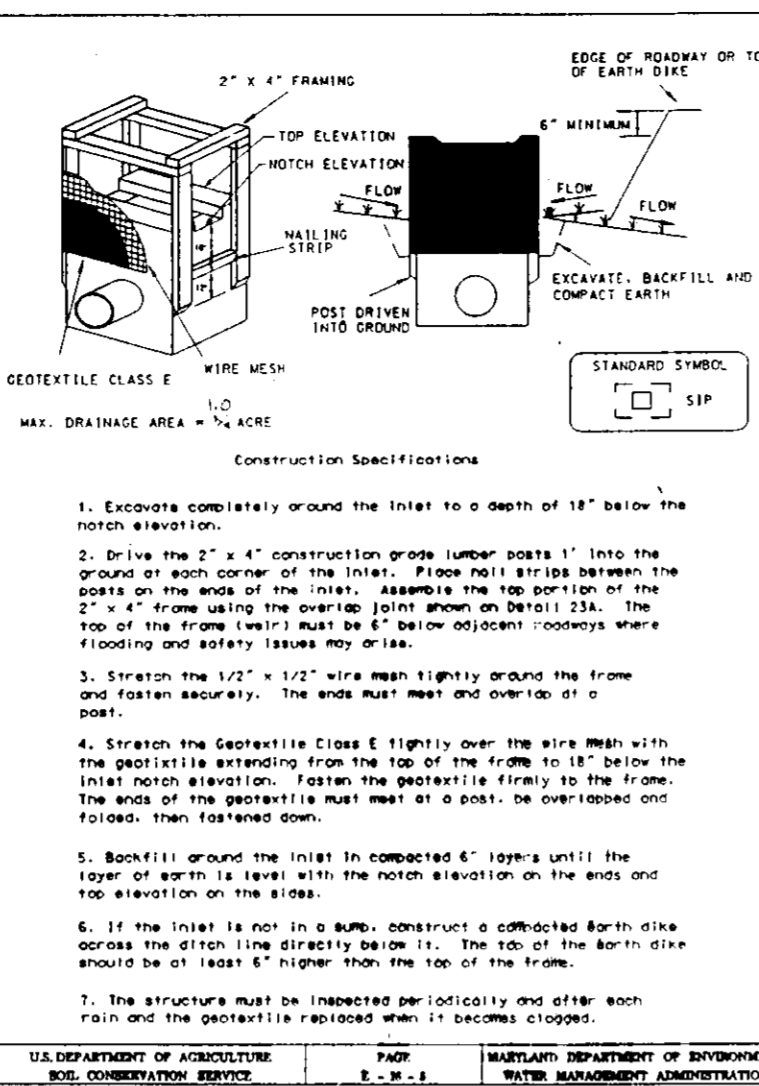
STONE / RIP-RAP OUTLET SEDIMENT TRAP - ST IV

Construction Specifications

- The area under construction shall be cleared, grubbed and staked of any vegetation and root mat. The soil area shall be staked.
- The fill material for the embankment shall be stone or rip-rap of other hard material on well sorted layers. No organic material or other objectionable material shall be used. The embankment shall be constructed by working with equipment while it is being constructed. No material of embankment shall be measured or contained in any manner.
- All cut and fill slopes shall be 2:1 or flatter.
- Storage area provided shall be figured by computing the volume measured from top of excavation. (For storage requirements see Table 3).
- Structure shall be constructed over the bottom and sides of the outlet channel or its equivalent. Section of rip-rap must overlap at least 1" with next section. Rip-rap shall be placed on top. Rip-rap shall be placed on top of 6" thick existing ground or concrete outlet channel.
- 2" x 2" stone shall be used to construct the weir and 4" x 12" of Class I rip-rap shall be used to construct the outlet channel.
- Outlet shall include a means of conveying the discharge in an erosion free manner to an existing stable channel. Protection against scour at the discharge point shall be provided as necessary.
- Outlet structure shall have positive drainage from the trap.
- Structure shall be excavated and then replaced to its original dimensions when the sediment has accumulated to 1/2 of the net storage depth of the trap. (Note: Rip-rap shall be replaced in 30 minutes and in such a manner that it will not erode.)
- The structure shall be inspected periodically after each rain and repaired as needed.
- Construction of trap shall be completed in such a manner that sediment collection is desired. Once constructed, the top and outside face of the embankment shall be seeded and mulched. Plants of concentrated surface shall be protected in accordance with Erosion Stabilization Structures (Table 2). The embankment shall be seeded and mulched (see Table 2) with seed and mulch upon top completion and monitored and maintained work on the surface of the trap.
- The structure shall be equipped to approach methods, removed and the area stabilized when the discharge area is not properly stabilized.

U.S. DEPARTMENT OF AGRICULTURE PAGE 1 MARYLAND DEPARTMENT OF ENVIRONMENT
SOIL CONSERVATION SERVICE C-1-1-1 WATER MANAGEMENT ADMINISTRATION

DETAIL 23A - STANDARD INLET PROTECTION

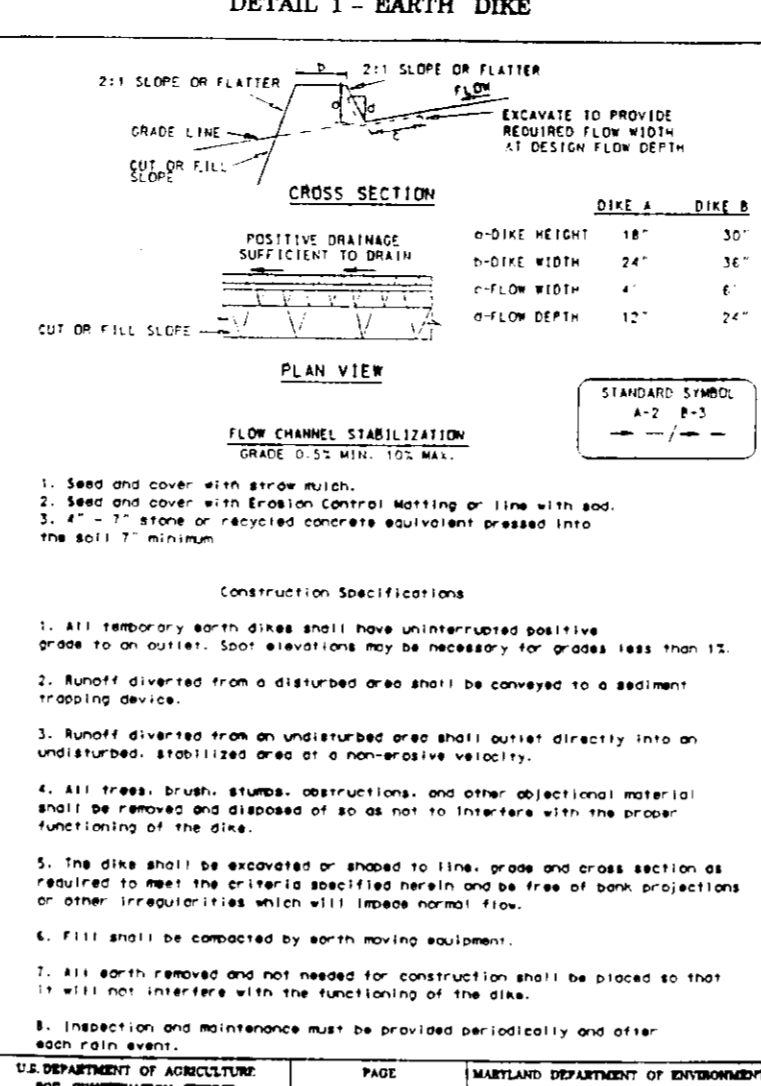


Construction Specifications

- Excavate completely around the inlet to a depth of 18" below the notch elevation.
- Drive the 2" x 4" construction grade lumber posts 1" into the ground at each corner of the inlet. Place post 18" between the posts on the side of the inlet. Fasten the top portion of the 2" x 4" frame using the overlap joint shown on Detail 23A. The top of the frame (180") must be 8" below adjacent concrete walls where flooding and safety issues may arise.
- Stretch the 1/2" x 1/2" wire mesh slightly around the frame and fasten securely. The mesh must meet and overlap at a joint.
- Stretch the Geotextile Cloth 8" tightly over the wire mesh with the geotextile extending from the top of the frame to 18" below the inlet notch elevation. Fasten the geotextile firmly to the frame. The ends of the geotextile must meet at a joint. Be sure to overlap and fold, then fasten down.
- Backfill around the inlet in compacted 4" layers until the top of earth is level with the notch elevation on the ends and top elevation on the sides.
- If the inlet is not in a curb, construct a compacted earth curb across the ditch line directly behind it. The top of the curb shall be at least 8" higher than the top of the frame.
- The structure shall be inspected periodically and after each rain and repaired as necessary.

U.S. DEPARTMENT OF AGRICULTURE PAGE 1 MARYLAND DEPARTMENT OF ENVIRONMENT
SOIL CONSERVATION SERVICE C-1-1-1 WATER MANAGEMENT ADMINISTRATION

DETAIL 1 - EARTH DIKE

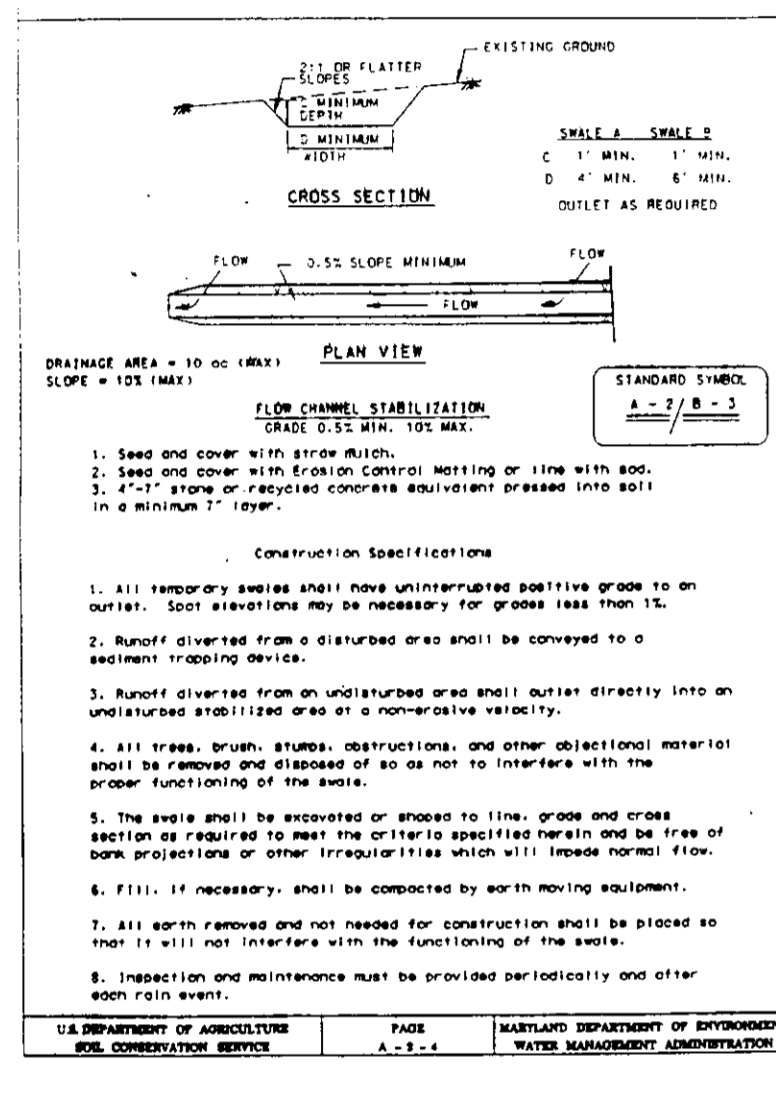


Construction Specifications

- Seed and cover after each rain.
- Seed and cover with Erosion Control Matting or lime with sod.
- 2" x 2" stone or rip-rap concrete equivalent placed into soil in a minimum 2" layer.

U.S. DEPARTMENT OF AGRICULTURE PAGE 1 MARYLAND DEPARTMENT OF ENVIRONMENT
SOIL CONSERVATION SERVICE C-1-1-1 WATER MANAGEMENT ADMINISTRATION

DETAIL 2 - TEMPORARY SWALE



Construction Specifications

- Seed and cover with Erosion Control Matting or lime with sod.
- 2" x 2" stone or rip-rap concrete equivalent placed into soil in a minimum 2" layer.

U.S. DEPARTMENT OF AGRICULTURE PAGE 1 MARYLAND DEPARTMENT OF ENVIRONMENT
SOIL CONSERVATION SERVICE C-1-1-1 WATER MANAGEMENT ADMINISTRATION

Section IV - Sod

To provide quick cover on disturbed areas (2:1 grade or flatter).

A. General specification

- Class of sod and sod shall be Maryland or Virginia State Certified or Approved. Sod labels shall be made available to the job foreman and inspector.
- Sod shall be machine cut to a uniform width of 3/4" plus or minus 1/4", at the time of cutting. Measurements on sods shall include top growth and depth. Individual pieces of sod shall be cut to the required width and length. Maximum allowable deviation from standard width and length shall be 3 percent. Broken pieces and areas of uneven sods will not be acceptable.
- 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 sod.
- Sod shall not be harvested or transported when moisture content (excessively dry or wet) may adversely affect its survival.
- Sod shall be harvested, delivered, and installed within a period of 36 hours. Sod not transported within this period shall be approved by an agronomist or soil scientist prior to its installation.

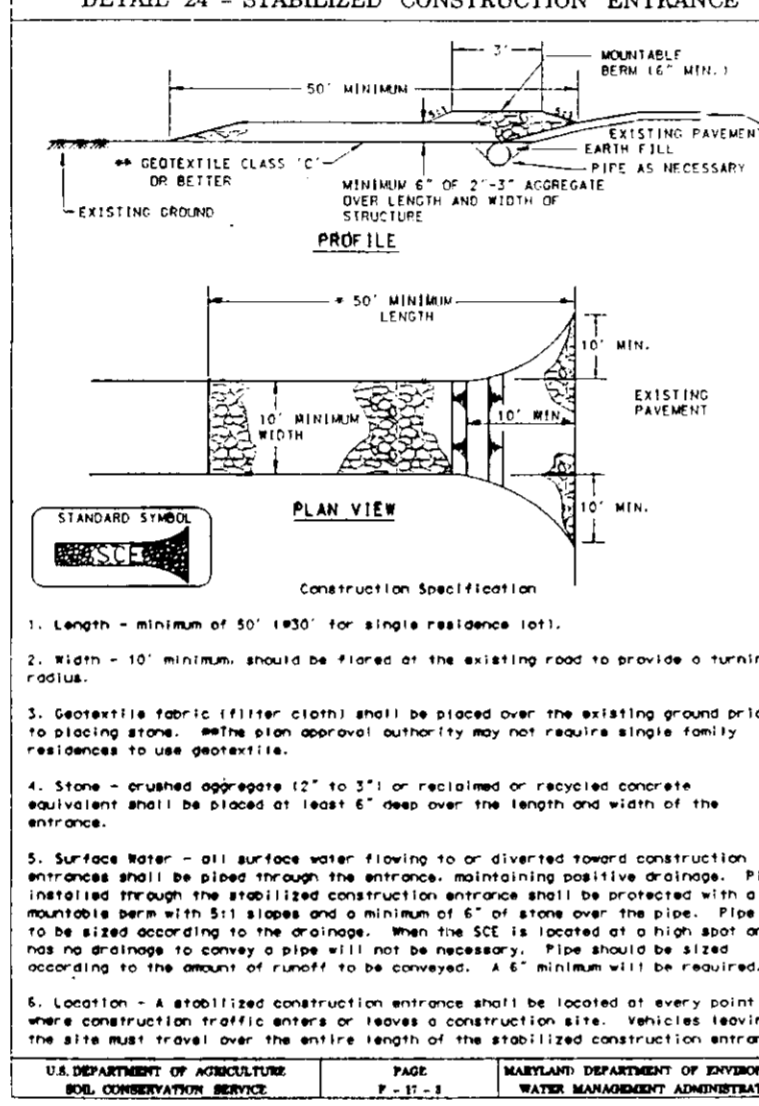
B. Sod Installation

- During periods of excessively high temperature or in areas having dry subsoil, the sod shall be lightly irrigated immediately prior to being laid.
- 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 crushed or broken and that all joints are tight against each other to prevent weeds which would cause drying of the sod.
- Wherever possible, sod shall be laid with the long edge parallel to the contour and with staggering joints. Sod shall be rolled and tamped, pegged or otherwise secured to prevent slippage or stones and to ensure solid contact between and under the sod and the underlying soil surface.
- Sod shall be watered immediately following rolling or tamping until the underside of the sod and pad and soil surface below the sod are thoroughly wet. The operations of rolling, tamping and irrigating for any piece of sod shall be completed within eight hours.

C. Sod Maintenance

- In the absence of adequate rainfall, watering shall be performed daily or as often as necessary during the first week and at sufficient quantities to maintain moisture at a depth of 4". Watering should be done during the rest of the day of every planting.
- After the first week, and watering is required as necessary to maintain adequate moisture content.
- The first mowing of sod should not be attempted until the sod is firmly rooted. No more than 1/3 of the grass height shall be removed for the initial mowing or subsequent cuttings. Grass height shall be maintained between 2" and 3" unless otherwise specified.

DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE

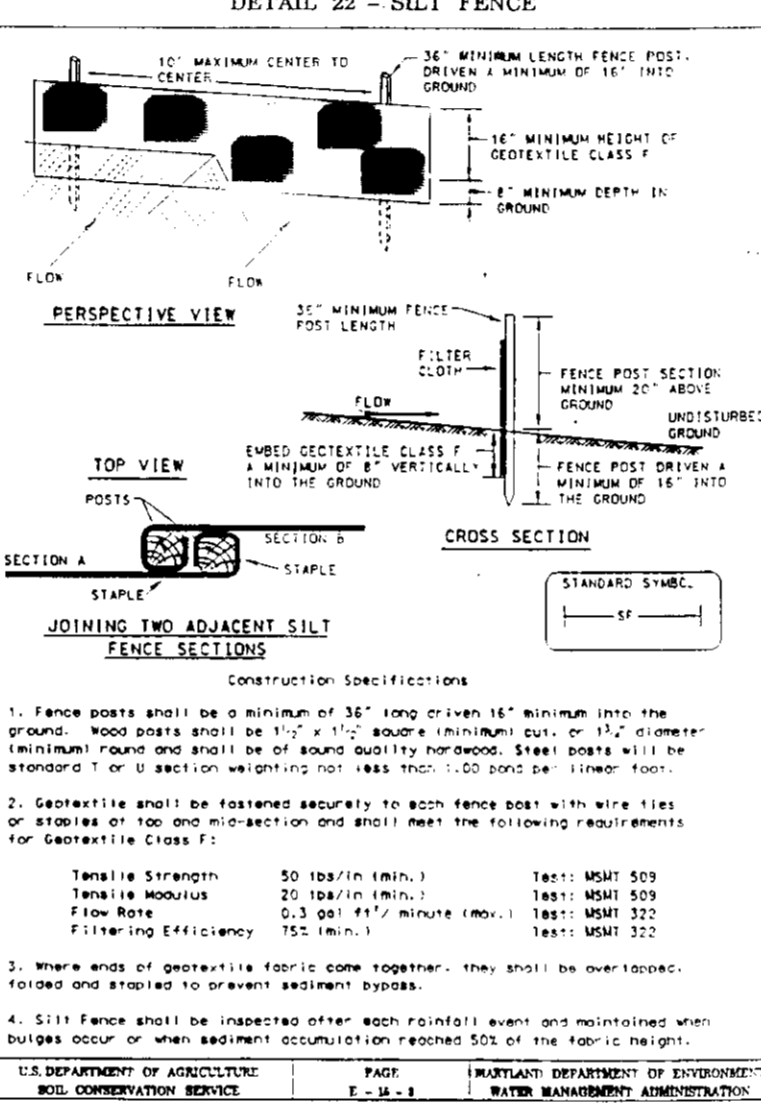


Construction Specifications

- Length - minimum of 50' (100' for single residence lots).
- Width - 10' minimum, should be fitted to the existing road to provide a turning radius.
- Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. Written state approved authority may not require single family residences to use geotextile.
- Stone - crushed aggregate 1 1/2" to 2" or recycled or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance.
- Surface water - all surface water flowing to or diverted toward construction entrances shall be allowed through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a rounded berm with 5:1 slope and a minimum of 6" of stone over the pipe. Pipe has to be placed according to the drainage, when the SCS is located at a high spot and has no drainage to carry a pipe will not be necessary. Pipe should be sized according to the amount of runoff to be conveyed. A 6" minimum will be required.
- Location - a stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site shall travel over the entire length of the stabilized construction entrance.

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DETAIL 22 - SILT FENCE



Construction Specifications

- Fence posts shall be a minimum of 36" long driven 16" minimum into the ground. Posts shall be 1 1/2" x 1 1/2" square minimum but of 1 1/2" diameter minimum round and shall be of sound quality hardwood. Posts shall be spaced 7' or 8' on center depending on soil conditions. Posts shall be placed in a line.
- Geotextile shall be fastened securely to both fence posts with wire ties or staples at top and bottom and shall meet the following requirements for Geotextile Class 1:

Tensile Strength	50 (lb/in. min.)	Tear	600 (lb)
Tensile Modulus	20 (lb/in. min.)	Tear Modulus	500 (lb)
Flow Rate	1.5 gal. per 10" square (min.)	Tear Modulus	500 (lb)
Flow Rate	1.5 gal. per 10" square (min.)	Tear Modulus	500 (lb)

- Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.
- Silt fence shall be inspected after each rainfall event and maintained when damaged or when sediment accumulation reaches 50% of the fabric height.

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SEDIMENT CONTROL NOTES

- A minimum of 24 hours notice must be given to the Howard County Office of Inspection and Permits prior to the start of any construction. (301) 992-2437
- All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1984 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
- During initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within: a) 7 calendar days for all perimeter sediment control structures, dikes and perimeter slopes and all slopes greater than 3:1, b) 14 days as to all other disturbed or graded areas on the project site.
- All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 12, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
- All disturbed areas must be stabilized within the time period specified above in accordance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings (Sec. 51), sod (Sec. 54), temporary stabilization, with mulch alone, can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
- 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.
- Site Area:

Total Area of Site	5.90 ± Acres
Area Disturbed	5.40 ± Acres
Area to be roofed or paved	1.72 ± Acres
Area to be vegetatively stabilized	3.88 ± Acres
Total Cut	3,200 ± Cu. Yds.
Total Fill	3,200 ± Cu. Yds.

 Off-site waste/borrow area location:
- 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 control must be provided, if deemed necessary by the Howard County DPW Sediment Control Inspector.
- 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.

PERMANENT SEEDING NOTES

- Apply to graded or cleared area not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed.
- Seedbed Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding (unless previously loosened).
- Soil Amendments: In lieu of soil test recommendations, use one of the following schedules
- Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 square feet) and 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft) before seeding. Harrow or disc into upper three inches of soil. At time of seeding, apply 400 lbs per acre 30-0-0 ureaform fertilizer (9 lbs/1000 sq ft).
 - Acceptable - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq ft) and 1000 lbs per acre 10-10-10 fertilizer (23 lbs/1000 sq ft) before seeding. Harrow or disc into upper three inches of soil.
- Seeding: For the periods March 1 thru April 30, and August 1 thru October 15, seed with 60 lbs per acre (1.4 lbs/1000 sq ft) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs Kentucky 31 Tall Fescue per acre and 2 lbs per acre (.05 lbs/1000 sq ft) of weeping lovegrass. During the period of October 16 thru February 28, protect site by Option (1) 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring. Option (2) Use sod. Option (3) Seed with 60 lbs/acre Kentucky 31 Tall Fescue and mulch with 2 tons/acre well anchored straw.
- Mulching: Apply 1-1/2 to 2 tons per acre (70 to 90 lbs/1000 sq ft) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000 sq ft) for anchoring.
- Maintenance: Inspect all seeded areas and make needed repairs, replacements and reseedings.

TEMPORARY SEEDING NOTES

- Apply to graded or cleared areas likely to be redistributed where a short-term vegetative cover is needed.
- Seedbed Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding (unless previously loosened).
- Soil Amendments: Apply 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft).
- Seeding: For periods March 1 thru April 30 and from August 15 thru November 15, seed with 2-1/2 bushel per acre of annual rye (3.2 lbs./1000 sq ft.). For the period May 1 thru August 14, seed with 3 lbs per acre of weeping lovegrass (.07 lbs/1000 sq ft). For the period November 16 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.
- Mulching: Apply 1-1/2 to 2 tons per acre (70 to 90 lbs/1000 sq ft) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes 8 ft or higher, use 348 gal per acre (8 gal/1000 sq ft) for anchoring.
- Refer to the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rate and methods not covered.

APPROVED PLANNING BOARD OF HOWARD COUNTY
DATE 3/14/96

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Date 5/24/96
Date 5/23/96

DEVELOPER'S/BUILDER'S CERTIFICATE
I/We certify that all development and/or construction will be done according to this plan, and that any responsible personnel involved in the construction project will have a Certificate of Attendance of a Maryland Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I/We authorize periodic on-site inspection by the HSCC.
Date 12/12/95

ENGINEER'S CERTIFICATE
I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.
Date 12/14/95

GUTSCHICK LITTLE & WEBER, P.A. CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS 3909 NATIONAL DRIVE - SUITE 250 - BURTNSVILLE OFFICE PARK - BURTNSVILLE, MARYLAND 20866				OWNER THE HOWARD RESEARCH & DEVELOPMENT CORP 10275 LITTLE PATENT PARK COLUMBIA, MD 21044-3436 (410) 592-4027		CONTRACT PURCHASER TRAFALGAR HOUSE RESIDENTIAL MARYLAND 8085 GUILFORD RD SUITE 200 COLUMBIA, MD 21046 (410) 780-8071 ATTN: MICHAEL CLAY		SEDIMENT CONTROL NOTES & DETAILS VILLAGE OF LONGREACH SECTION 4 AREA 2 LOTS C-1 THRU C-60 6 TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND				SCALE	ZONING NEW TOWN	G. L. W. FILE NO. 95-032
TEL. (301) 421-4024 MO. VAL. (301) 989-2524 BAL. (410) 880-1820 FAX: (301) 421-4186	DES.	DRN.	CHK.	DATE	REVISION	BY	APPR.	DATE	TAX MAP No. 37	SHEET 5 OF 5				